Census of India, 1911

VOLUME IX

BURMA

PART I.—REPORT

BY

C. MORGAN WEBB, M.A., I.C.S.

FELLOW OF THE ROYAL STATISTICAL SOCIETY
SUPERINTENDENT, CENSUS OPERATIONS

RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA

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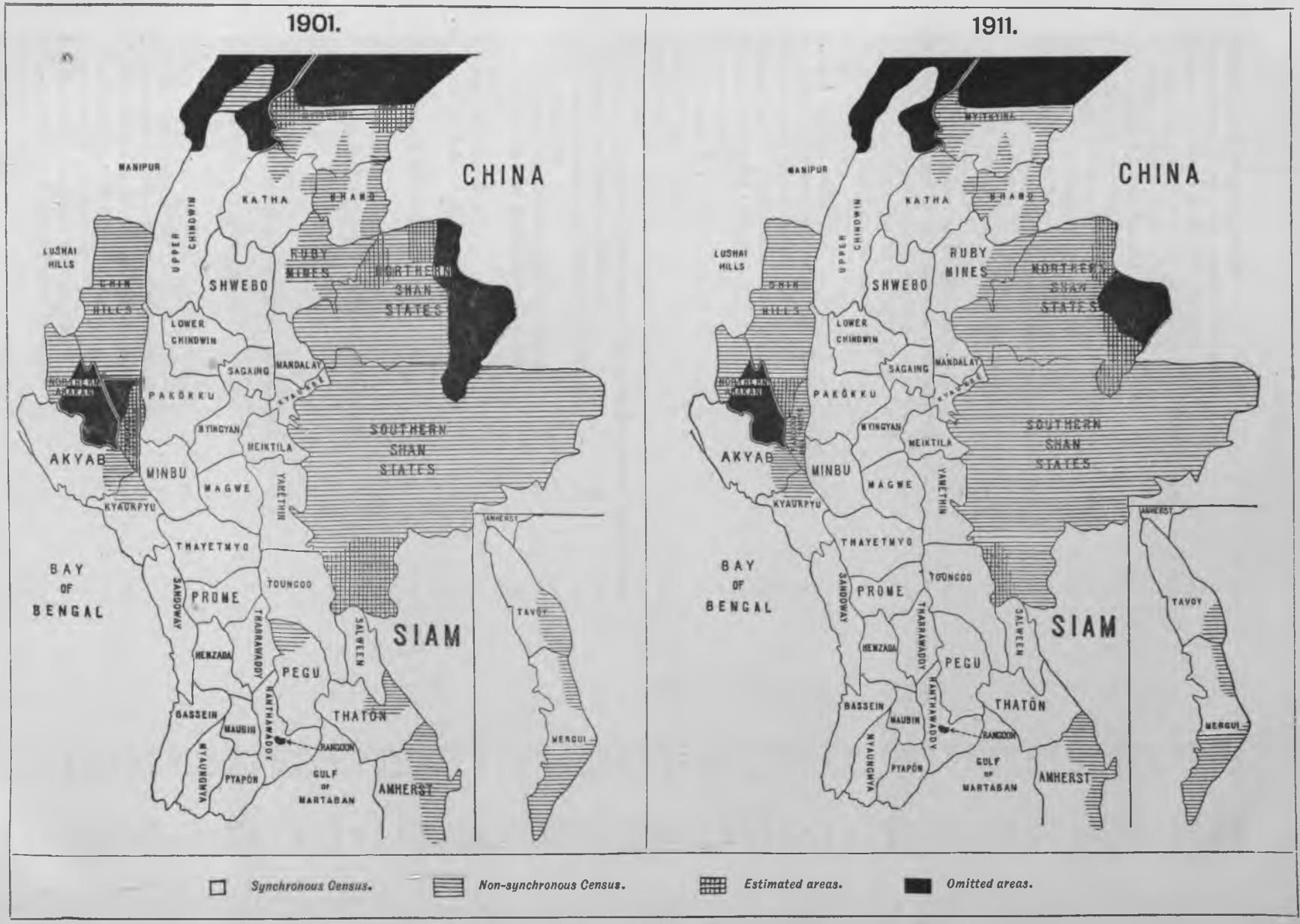


INTRODUCTION.

I. Gradual Extension of Area covered by Census Operations.—The fifth Census of Burma was taken on the 10th March, 1911. Of the previous enumerations, those for 1872 and 1881 extended only to that portion of the Province then under British administration. Census operations in 1891 were extended to cover all the regularly administered portions of the recently annexed territory of Upper Burma. At the same time, an informal enumeration was conducted in several of the Shan States; but the figures obtained were not sufficiently comprehensive to be included in the tabulated statistics for the Census of 1891. In 1901 a further extension was made, the operations covering the whole of the Province except Manglün and Kokang in the Northern Shan States, the unadministered areas in Northern Arakan and the Pakôkku Hill Tracts, and an ill-defined block of unadministered territory to the North of the Upper Chindwin and Myitkyina Districts. In the Census now under report, a further reduction was effected in the areas excluded from Census Operations, Kokang, West Manglün, and the unadministered territory of the Pakôkku Hill Tracts being brought within their scope, although only an estimate of their populations was attempted. The only portions of the Province which still remain untouched are East Manglün, and the unadministered areas of the Northern Arakan, the Upper Chindwin and Myitkyina Districts.

II. Treatment of Backward and Remote Areas.—Owing to various causes, the principal of which is the dearth of literate persons to act as Enumerators, and the lack of facilities for speedy communication, it is impossible to effect a simultaneous enumeration throughout the Province. A synchronous census was taken wherever possible, but as on previous occasions, special treatment had to be devised for backward or remote areas. This treatment was of two kinds according to the difficulties to be encountered. Where feasible, a non-synchronous census, regular in every particular except that it was not finally checked and corrected on the 10th March, was conducted during the months of January and February. Where this was not possible, an estimate was made, based on the number of houses, combined with an actual enumeration of several typical villages. Every effort was made to advance the nature of such operations a stage beyond those which were necessary in 1901. Some hitherto non-synchronous areas were brought within the scope of the synchronous enumeration; several areas previously estimated were treated non-synchronously; and, as already stated, areas omitted in 1901 were included for the first time, and their population estimated. A full account of the progress achieved will be given in the separate report specially devoted to the administrative details of the census operations.

III. Arrangements for the Enumeration.—Experience has demonstrated that the best method of overcoming the difficulties of effecting a census in India is the adoption of a fourfold division of labour,—control, superintendence, supervision and enumeration. These functions are exercised through a series of officers termed, respectively, the District Census Officer, the Charge Superintendent, the Circle Supervisor, and the Enumerator. They are exercised over areas based on the administrative units of the District, the Township, the Revenue Surveyors Charge and the Village Tract, the last three of which were termed for census purposes, the Charge, the Circle and the Block. The Block comprised from 30 to 50 houses, the Circle from 10 to 15 Blocks, and the number of circles in a charge varied with the local conditions prevailing. The Deputy Commissioner usually retained the functions of District Census Officer in his own hands, though in a few cases they were delegated to specially selected officers. Charge Superintendents in most instances were Township Officers or Inspectors of Land Records; but in remote areas, officers from other Departments were called into service. Circle Supervisors were Revenue Surveyors or Circle Clerks wherever the

operations of the Land Records Department extended, and beyond their jurisdiction, officers from other departments undertook the duty. For enumerators, village headmen and private persons with the necessary educational qualifications were appointed. Instructions were framed and translated into simple idiomatic Burmese for the guidance of the several grades of officers, and these were supplemented by oral teaching, each grade of officers instructing those of the next grade within his jurisdiction. The total numbers of Census Officers appointed were 41 District Census Officers, 496 Charge Superintendents, 5,764 Circle Supervisors, and 65,083 Enumerators.

IV. House Lists and House Numbering.—After the selection of Census Officers and the issue of instructions for their guidance, the first direct step towards the actual enumeration was the numbering of the houses. The definition of a house adopted was "the separate residence of a family," which in crowded areas was equivalent to a "tenement." A few difficulties were experienced in applying to widely varying conditions a definition which was designed to permit a certain latitude of classification, but these were easily solved whenever they arose. Simultaneously with the house numbering, lists of houses were prepared, totalled for each district, and the results sent to the Superintendent to form a basis for the distribution of the necessary enumeration forms.

V. Census Chronology.—In order that local officers might check the progress of the preparations, two calendars were issued showing the dates on which each item of the operations should be commenced and concluded. The first, issued in April 1910, was devoted to the initial stages; the second, issued in September 1910, considerably amplified its predecessor and carried the programme to the final conclusion of the census duties to be performed by local officers. The calendars proved most effective keeping each stage of the preparations up to date, not only in the outlying districts but also in the central office.

VI. Provision for Special Circumstances.—Mention has already been made of areas in which a full synchronous census could not be taken. These comprised the specially administered territories of the Northern and Southern Shan States, the Chin Hills and the Pakôkku Hill Tracts, together with a few remote areas in the regularly administered districts of the Province. Arrangements were made for a full census, complete in every detail except the final check, on the 10th March in all such areas except the Pakôkku Hill Tracts, the Brè Tract of Karenni and West Manglün and Kokang. In the administered portion of the Pakôkku Hill Tracts, a modified non-synchronous census was effected, while in the unadministered portions, and in the West Manglün and Kokang, an estimate only was attempted. Special instructions were also prepared for the enumeration of Towns, Ports, Boats, Steamers, Landing Places, Railways, Cantonments, Troops, Industrial Units, Plantations, Oil Fields, Travellers, Camps, Fairs, Festivals, Religious Assemblages, Jails, Hospitals, Police Stations, and of all localities where it was anticipated that the general instructions needed amplification or modification.

VII. The Preliminary Record.—During November and December 1910, an experimental enumeration was attempted, each Enumerator making a specimen entry of the inhabitants of one house in his Block. The schedules were collected and an exhaustive examination made of their errors of omission and commission. These were tabulated, and instructions guarding against them were issued just in time for the preliminary record. In rural areas, this commenced on the 1st February 1911, but in towns and where rapidly changing conditions obtained, a later date was prescribed. The information to be recorded was the name, religion, sex, age, civil condition, caste, tribe or race, occupation, language, birth-place, literacy and certain infirmities of each person. About twenty days was allowed for the preparation of the preliminary record, which was due for completion on the 20th February in villages and rural areas and on the 4th March in towns.

VIII. The Actual Census.—Except in the non-synchronous and estimated areas, the actual census was taken between 7 p.m. and midnight on the 10th March. Each enumerator visited in turn every house in his block and brought the preliminary record up to date by crossing out the record of persons no longer present, and entering particulars for all new comers.

IX. The Provisional Results.—On the morning of the 11th March, each Enumerator went with his records to a place previously fixed by the Supervisor, and prepared an abstract of the houses, and persons, males and females, he had recorded. The enumerators' abstracts for all the blocks in a circle were combined into a Circle Summary. The Circle Summaries were in turn combined into a Charge Summary, and the Charge Summaries combined into one district total. When these stages were completed and checked, the final results for each District were telegraphed to the Census Commissioner for India. Despite careful and detailed instructions, this final preparation of provisional totals was the least satisfactorily performed of the whole series of operations. A complete analysis of the causes of the comparative want of success in this direction, most of them peculiar to the Province of Burma, some of them inherent and inevitable, some of them accidental and rectifiable, will be found in the volume of this report specially devoted to administrative details.

X. Special Industrial, Departmental and Railway Census.—Simultaneously with the ordinary census, a census of large industries was effected through the agency of the owners and managers of all the industrial units of the province employing more than twenty persons. At the same time returns were prepared, under the supervision of the Agent of the Burma Railways showing the number of railway workers on the system, and similar returns were prepared by the heads of the Postal, Telegraph and Irrigation Departments. The results obtained were of considerable value both in indicating the extent to which large industries had taken root in the province, and also in checking the amount of error in the occupational returns of the ordinary census owing to the vague and insufficient nature of the terms used to describe the occupations recorded.

XI. Preparation of Final Tables.—The preparation of the final Census Tables in Burma was handicapped by the impossibility of getting the preliminary stage of slip copying performed at district or township headquarters. This work for the whole province was concentrated in two offices at Rangoon and Mandalay, with the slight relief during the month of April of branch slip copying offices at Rangoon College and the Rangoon Buddhist Boys' and Girls' schools. To this handicap was added the most unfortunate illness and death of Babu A. C. Pal, Deputy Superintendent of the office. His illness commenced on the 20th March, ten days after the Census was taken, and continued till his death on the 12th April. Throughout this period, he endeavoured to carry out his heavy duties, and it was not till a few days before his death that he could be dissuaded from attendance at office. His loss at the most critical period of the whole operations adversely affected the rate of progress made, and it was months before the effects of the initial delay could be made good.

XII. The Slip System.—As in 1901, the slip system of abstraction of enumeration details was adopted, though various modifications suggested by past experience were introduced. Details of religion were indicated by the colours of the slips, while sex and civil conditions were indicated by symbols. The combination of six colours and six symbols produced 36 varieties of slips which may be briefly indicated by the following scheme :—

Religion.	Colour.	Male.			Female.		
		Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
		◤	■	▶	◹	□	▷
Buddhist ...	Brown ...	1	2	3	4	5	6
Animist ...	Yellow ...	7	8	9	10	11	12
Hindu ...	Red ...	13	14	15	16	17	18
Mahomedan ...	Green ...	19	20	21	22	23	24
Christian ...	Blue ...	25	26	27	28	29	30
Others ...	White ...	31	32	33	34	35	36

The Slips, measuring 2 inches by $4\frac{1}{2}$, contained spaces for the entry of all the particulars not already indicated by the colour and symbol of the slip. The three important details of religion, sex and civil condition were therefore reduced to a

mere act of selection of the correct slip from a bureau of 36 compartments, and labour was further curtailed by the use of authorized abbreviations for all entries likely to be frequently repeated. A second series of slips was prepared for the entry of the infirmities recorded, this being the most effectual method of preventing omissions of a class of entries liable to be overlooked through their infrequency. The work of slip copying commenced on the 13th March, the staff being gradually recruited till it reached 569 at the end of April. A fall in numbers to 367 then occurred owing to the closing of the branch offices at the schools in Rangoon. The work was finally completed on the 5th of August 1911.

XIII. Slip Sorting.—After the slips were copied, they were divided into sorting units of convenient size, the slips for each unit being placed in a calico bag. A preliminary sorting by sex and religion was effected before the sorting bags were made up. The bags were then handed over to the Sorting Department and their contents analysed to obtain the respective numbers for each category of age, civil condition, caste, tribe or race, occupation, language, birth-place and literacy. After each sorting, the results were entered on a Sorter's Ticket designed to show the particulars ultimately required for statistical treatment. Sorting was commenced tentatively in May in order to train a sufficient number of men to act as sorting supervisors. It began seriously at the beginning of July, when the slip copying staff were gradually transferred to the Sorting Department as the approaching completion of slip copying rendered their services available. The number of sorters varied week by week, the maximum number of 337 being reached at the end of August. The work of sorting was finally completed on the 7th of October.

XIV. Compilation.—Compilation proved to be the most difficult and intricate task of all. It comprised the incorporation of the details for the various sorting units into District and Provincial Totals. It was effected by compilers selected from the best men in the slip copying and sorting departments. The standard, however, was deplorably low, and some of the compilation sheets had to be checked again and again before their horizontal and vertical totals would agree. The greatest difficulty was found in the correction of arithmetical errors. It was almost impossible to make the compilers understand that a mistake could not be rectified by the correction of the more immediate and obviously connected figures. The original figures would be incorporated in totals with remote and apparently unconnected ramifications, and when a compiler to avoid bringing an error to notice attempted to effect his own corrections the result was disastrous.

The work of compilation commenced on the 15th July and was nominally completed on the 2nd December, but the process of checking and rechecking the results continued till the end of the operations. Before a table was finally passed, it was necessary to compare its figures with the results obtained in the remaining tables whenever such a comparison proved possible. This revision proceeded concurrently with the writing of the report, and compilation may be said to have ended simultaneously with the completion of the report on the 20th March.

XV. Statistical Volume.—Considerable changes have been made in the presentation of statistics in the Imperial Tables of the report. The following tables are being published for the first time :—

Imperial Table XV-B.—Subsidiary occupations of agriculturalists.
Imperial Table XV-D.—Distribution of occupations by religion.
Imperial Table XV-E.—Parts I to IV.—Industrial statistics.
Provincial Table I.—Area and population of Townships, States and Special Tracts.
Provincial Table II.—Population of Townships and States by religion.

Table XV A-II has also been expanded by the addition of 470 columns to show—

(i) total workers and dependents ;
(ii) male and female workers having agriculture as a subsidiary occupation.

The addition of these particulars has necessitated the expansion of the statement from 32 to 66 pages. Despite these additions the size of the statistical

volume has been reduced from 431 to 286 pages. This has been accomplished by a combination of the following methods—

(i) reduction in size of printing for the more lengthy tables;
(ii) elimination of unnecessary information from Imperial Tables VIII and XIII;
(iii) Rearrangement of Imperial Tables VII, VIII, X, XI, XIII and XV A-II.

It is anticipated that the rearrangements will facilitate the task of reference. It is believed that the method of tabulating the speakers of the tribal language of the Province in Table X and the members of the several tribes in Table XIII, besides economising space has many points of advantage over their separate entry into the columns of the prescribed statement.

XVI. The Report.—It was impossible to commence the writing of the report on the Census Operations before the processes of sorting and compilation were completed. The first chapter was commenced on the 6th December and the last chapter completed on the 20th March. It thus took about three and-a-half months to write. But a very large portion of the time of the Superintendent was occupied during this period by the following tasks:—

(i) Examination, revision and arrangement of the Imperial Tables.
(ii) Supervision of the preparation of the Subsidiary Tables (numbering 79) appended to the chapters of this volume.
(iii) Preparation of the Administrative Volume, a detailed account of the conduct of the Census Operations from their initiation to their conclusion.
(iv) Preparation of 41 B Volumes of the District Gazetteer, with which volumes the village census tables are to be incorporated.

It is feared that the time available in the intervals of these duties has not permitted sufficient attention to be given to the style and arrangement of the contents of the report, to the co-ordination of its various chapters and to the elimination of redundant matter. There has been little or no opportunity for the correction of proofs, or the rearrangements which the experience gained in the writing of the report has suggested. It remains as it was hurriedly drafted, with many of the defects inherent in a rapid review of masses of figures, uncorrected. The advantages of a comparatively early publication of the report and statistics will, it is hoped, excuse the deficiencies which such early publication has in some measure entailed.

XVII. Cost of Census.—Census expenditure has been recorded by two methods, "Treasury" and "Departmental". The two may be differentiated as follows:—

(i) Treasury expenditure is that which would not have been incurred but for Census Operations.
(ii) Departmental expenditure is the total of all charges actually incurred in connection with the Census Operations.

The main difference between the two is the inclusion of the full salaries of officers deputed to Census work in the departmental accounts, while in the treasury accounts only their deputation allowance is included.

Cost of Census.

Year.	Departmental Accounts.	Treasury Accounts.	Cost per head.	
			Departmental.	Treasury.
	Rs.	Rs.	Pies.	Pies.
1911	174,927	128,897	2·8	2·0
1901	186,457	132,314	3·4	2·4

Although the population dealt with has increased from 10,490,624 to 12,115,217, the cost of the operations has decreased. The cost of the operations has been 2·8 pies or 2 pies per head, according as the "Departmental" or the "Treasury" standard of expenditure is taken as the basis of the calculation.

XVIII. Acknowledgments.—It would be impossible to specify by name the numerous officers of all ranks who have cordially co-operated in all stages of the

census operations. My thanks are particularly due to the Deputy Commissioners of the province for adding to their already heavy labours the task of controlling the operations in each district. The duties of a Census Superintendent are largely the collection and compilation of material supplied by the labour of others, and but for the care and attention given in carrying out the somewhat heavy demands of a census enumeration, the work could not have been effected. In this direction, the Traffic Manager of the Burma Railways and the Agent of the Irrawaddy Flotilla Company went considerably beyond what could have been reasonably expected, in their endeavours to make the enumeration under their respective control, a complete success.

More particularly are my thanks due to Mr. J. A. Stewart, C.S., for the translation of the " instructions to Enumerators " into clear and idiomatic Burmese, to Mr. J. S. Furnival, C.S., for many suggestions and contributions, and to the Revd. G. J. Geis of Myitkyina for several items of information concerning the races on the northern frontier of the province. The monograph on the Palaungs of the Kodaung Hill Tracts printed as an appendix to this Volume, is but one of the directions in which I have been assisted by Mr. A. A. Cameron, Assistant Superintendent of the Kodaung Hill Tracts. From the administrative Volume of the Census of 1901, and from the Volume of the Ethnographical Series on " The Tribes of Burma," both written by Mr. Lowis, I have derived the utmost assistance, and this was supplemented by his personal advice and guidance during the initial stages of the operations, before he left the province. I have also been exceedingly fortunate in receiving the personal encouragement and the mature advice in several difficult situations, generously extended to me by the Hon'ble Mr. H. L. Eales, C.S.I. Like every person who writes about Burma, I have found that the writings of Sir George Scott both official and unofficial, contain nearly all that can possibly be said on every subject connected with the province, and I have not hesitated to make the most generous quotations when the occasion seemed to demand them. Next to Sir George Scott's writings, the work of Major H. R. Davies on " Yunnan " has been of the greatest assistance to me in all matters connected with the tribes and races on the North-Eastern frontier. Without the volumes of the Linguistic Survey of India, the greater portion of Chapter X of this volume could not have been written. A most welcome saving in expenditure was effected by the offer of the use of a large amount of office furniture by the Honourable Judges of the Chief Court on the occasion of the transfer of the Court to their new buildings, and I desire to express my thanks for the assistance so received.

As for my immediate staff, I have the greatest pleasure in acknowledging my indebtedness to Maung Lat, Deputy Superintendent, Mr. G. Anthony, Chief Inspector, and Babu H. Ghosha, Chief Clerk and Accountant of the Rangoon Office. On the death of the previous Deputy Superintendent, Babu A. C. Pal, a great strain was thrown on these three officers, and it is largely due to their energy and industry that the resulting loss of time at the commencement of the work of compilation was subsequently recovered. Finally, I owe more than I can acknowledge to the promptitude with which Mr. Bishop, the Superintendent of the Government Press, has met my most unreasonable requests ; and after Mr. Bishop's departure on leave, to Mr. Baillie, for the expeditious manner in which the census volumes were finally passed through the press.

C. MORGAN WEBB.

RANGOON, *21st March 1912.*

Map

SHOWING THE COURSE OF THE

MAIN IMMIGRATION WAVES INTO BURMA

COMPILED BY

C. C. LOWIS, I.C.S.
SUPDT., ETHNOGRAPHICAL SURVEY, BURMA

G.B.C.P.O., No 2, Mis. 12-4-1912. 1250. L.M.

REPORT

ON THE

CENSUS OF BURMA, 1911

CHAPTER I.

Distribution of the Population.

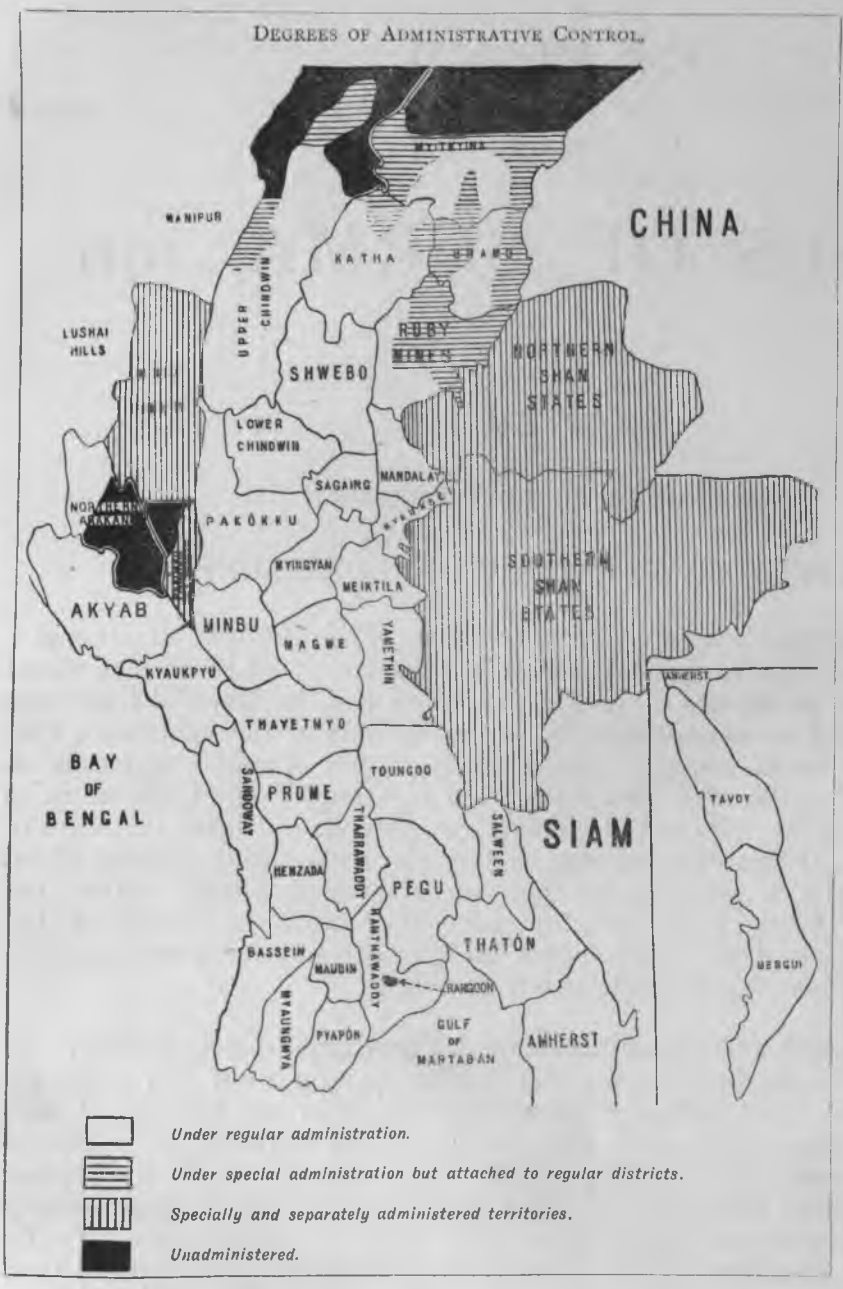
ADMINISTRATIVE AND NATURAL DIVISIONS.

1. Introductory.—It is not within the scope of this Chapter to attempt a general description of the Province of Burma. Such a task has been rendered unnecessary by the publication of the Provincial Series of the Imperial Gazetteer, which has supplied in an authoritative and accessible form all the information that such a description would contain. But there are a few special circumstances, peculiarly pertinent to the value and the method of arrangement of the statistics herein considered, which will need elucidation at greater length than in a work of general reference. If these few opening paragraphs appear to be disjointed and fragmentary, it is due to the fact that they are of a supplementary nature, not pretending to be a balanced and coherent account of provincial conditions, but merely recording a few of the more obvious factors necessary for a true appraisement of the value of the figures subsequently analysed.

2. Administered and Unadministered Territory.—Geographically the Province of Burma comprises the hinterland of that portion of the Bay of Bengal which extends from the Chittagong District in Bengal to the Isthmus of Kra in the Malay Peninsula. It extends northwards and eastwards from the sea to the mountainous, remote and thinly populated region where it meets the borders of Assam, Tibet, China and Siam. But the whole of this area of approximately 262,000 square miles has not been brought under effective administration. To the north of the Upper Chindwin and Myitkyina Districts is a large tract of unexplored country about the head waters of the Chindwin and Irrawaddy Rivers, in which no direct administrative control is at present exercised. Nearer the heart of the Province, lying between the Chin Hills, the Pakôkku Hill Tracts and the District of Northern Arakan is a smaller area to which no effective administration has been extended. The total area so unadministered is estimated to be about 31,000 square miles.

3. Specially Administered Territories.—There is a second series of territories not brought within the regular administration of the Province which are governed by special regulations through dependent Native Chiefs. The greater portion of such specially administered areas extending over 66,428 square miles are grouped into four administrative entities; the Northern and Southern Shan States, the Chin Hills and the Pakôkku Hill Tracts. The remainder, comprising thirteen areas totalling about 22,000 square miles, are attached for purposes of administration to the Upper Chindwin, Ruby Mines, Myitkyina, Bhamo and Katha Districts. It is necessary to keep the distinction between these two categories in mind, as they are treated differently in the arrangement of statistics which has been adopted. The four separate territories have been treated apart from the remainder of the Province, whereas the populations of specially administered areas attached to regular districts have been incorporated into the figures for those districts. This procedure is open to criticism. Theoretically, the whole population under special administration

should have been kept apart from that of the rest of the province. When this was realised the separation was attempted; but by this time the division of the sorting slips into units arranged on other lines, had proceeded too far to allow the change to be made with success. Consequently, the main Imperial Statistical Tables for the five districts mentioned include the populations under special, as well as those under regular, administration. The separation has however been effected in the two Provincial Tables printed at the end of the Statistical Volume, from which the respective populations under regular and special administration can be obtained.



4. Practical Justification of present Statistical Arrangement.—Though this arrangement of statistics was not originally contemplated, and though it is theoretically unsound, there are many reasons which can be adduced for its adoption. It facilitates comparison with the figures for 1901, which followed similar methods of arrangement. Moreover, the difficulties of separation would have been almost insuperable in the Districts of Bhamo and Myitkyina where there are no definite geographical boundaries between the regularly and specially administered areas, adjacent villages being administered regularly or specially according as their inhabitants are Burmese or Kachin. But perhaps the strongest reasons against the more correct theoretical course are the expansion and complication of the Statistical Tables which would have resulted from the division of the population of five districts and two divisions into two separate categories. It is a fundamental axiom that the utility of census tables varies inversely with their bulk. Just as a modern battle ship is a compromise in which the factors of size, speed, safety, defence, armament and endurance have to be balanced against each other, so a census table is the result of mutually conflicting considerations. Differential classification should never be pushed to such extremes that simplicity, clarity and compression are sacrificed. It is highly probable that the present statistical arrangement, though partially inadvertent, is the most convenient practical compromise that could have been effected.

5. Burma Proper.—The greater portion of the Province covering an area of 164,411 square miles is regularly administered. It comprises 37 Districts each

controlled by a Deputy Commissioner, and these are again grouped into eight Divisions each under the supervision of a Commissioner. These administrative units have been taken as the basis for the compilation of the Imperial Census Tables, though as already explained, the populations of those specially administered territories which are attached to regular districts have been incorporated into the district totals. The areas of the two portions which for census purposes have been treated as Burma Proper and Specially Administered Territories are 164,411 square miles and 66,428 square miles respectively. These with the area roughly estimated to be 31,000 square miles of unadministered territory make up the total area of the Province.

6. Grouping of Statistics by Natural Divisions.—Though the grouping of statistics by Commissioners of Divisions is dictated by administrative reasons, such an arrangement is of but slight value in the treatment of the problems of the distribution of the population, its movements and migrations, its tribes and its languages, its customs and its occupations. It is true that these phenomena are influenced by administrative divisions, but in a secondary manner only. Indeed, administrative boundaries themselves are secondary matters, being partly the resultant of natural features and physical characteristics. It is therefore highly important in estimating the true value of population statistics to ignore as far as possible the artificial areas called into existence for the purposes of government and control. It is impossible to follow out this principle thoroughly, because all such statistics are primarily obtained through local officers working within their jurisdictions, and to this extent administrative areas must be recognized. But with respect to the main physical characteristics of the province, it is possible to select natural divisions which will exhibit the various phases of the life of the people with far greater effect than if the eight artificial divisions created purely for administrative purposes were adopted.

7. Importance of Natural Divisions in Burma.—The extreme importance of the influence of natural configuration on the distribution and character of the population is perhaps greater in Burma than in most other countries. Writing of a region including the northern portion of the Province, Major H. R. Davies, in his work on Yünnan, states :—

> " It is safe to assert that in hardly any other part of the world is there such a large variety of languages and dialects as are to be heard in the country which lies between Assam and the Eastern border of Yünnan and in the Indo-Chinese countries to the south of this region."
>
> " The reason of this is not hard to find. It lies in the physical characteristics of the country. It is the high mountain ranges and the deep, swift flowing rivers that have brought about the differences in customs and language, and the innumerable tribal distinctions which are so perplexing to the enquirer into Indo-Chinese ethnology."

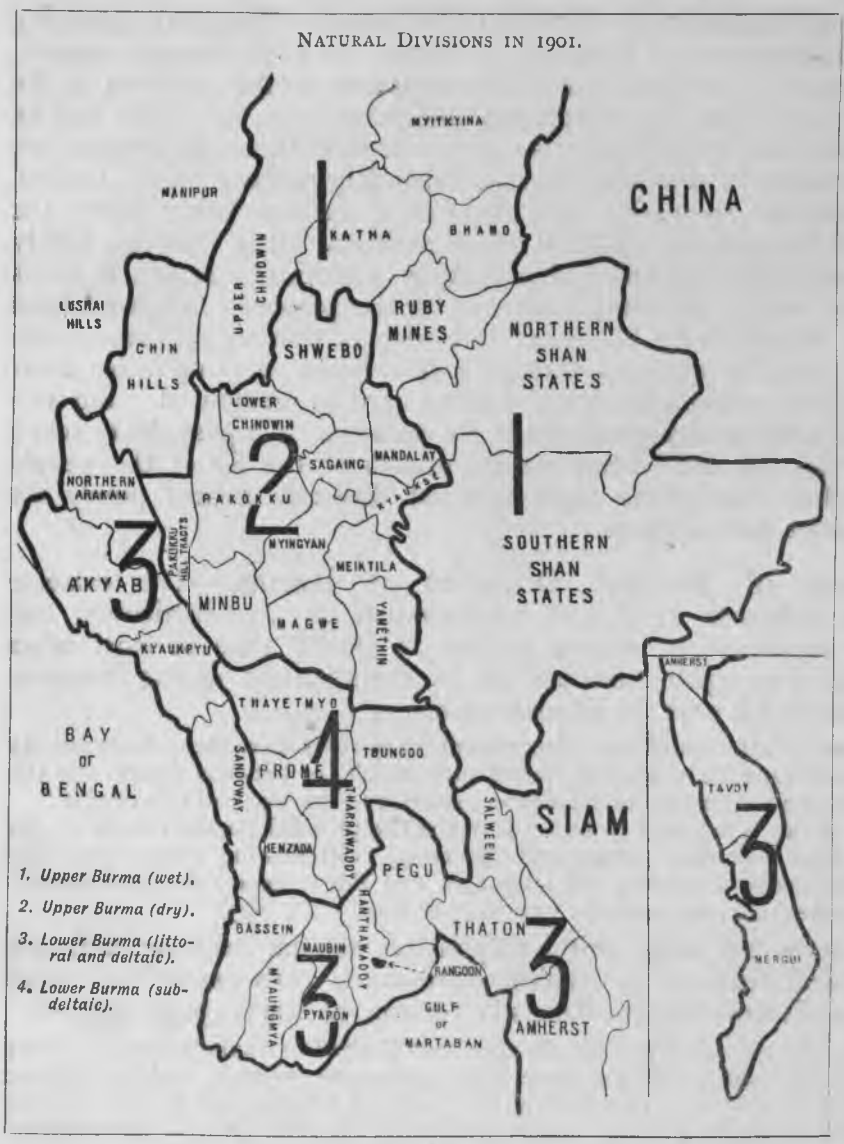
A further statement by the same writer emphasizes the far-reaching influence exercised by physical features on ethnical distribution. Discussing the racial conflict between the Chinese and the Shans in Yünnan, he states (page 379) :—

> " Probably the only reason why the Shans have been allowed to retain possession of any of the fertile valleys in Yünnan is that the lower-lying places are feverish, and the Chinese find them too unhealthy to live in. The dividing line between Chinese and Shans comes at about 4,000 feet. Above this height the valleys are healthy and the Chinese have settled there in sufficient numbers to absorb or drive out the Shans."

This suggestion may explain much more than the continued existence of the Shans in the low Yünnanese valleys. It may probably be one of the causes of the immunity of the Shan States and of Burma from a Chinese invasion in overwhelming numbers, and may therefore be an important factor in the very existence of Burma as a separate national entity. Instances taken from within the Province, illustrating the close association between racial distribution and the general physical characteristics of the country, might be multiplied indefinitely. At present it is sufficient to notice how this association has forced itself into official nomenclature in such terms as the Chin Hills and the Kachin Hill Tracts.

8. Absence of previous Analysis of Population by Natural Divisions.—Despite its outstanding importance, circumstances have hitherto intervened to prevent an analysis of the population of Burma with special reference to the natural features of the country. In 1891, the annexation of Upper Burma was so recent that it overshadowed all other considerations. In the Census Report for that year, the main natural divisions of the Province were described, their want of correspondence with its administrative divisions pointed out, and the latter were

then adopted as convenient units for dealing with the census returns. In 1901, a suggestion was made by the Census Commissioner for India pointing out that the close relation existing between rainfall and population was such as to justify the selection of meteorological conditions as the primary basis of a classification of this kind. The result was unfortunate so far as Burma was concerned. The natural divisions described in 1891 were modified to fit in with meteorological conditions, and an analysis of the distribution of the population with reference to modified divisions was attempted. Fortunately, Mr. Lowis himself recorded in strenuous terms his opinion of the extreme unsuitability of the divisions so obtained as the following quotations from paragraphs 20 and 21 of his report will indicate :—



"In Burma the required conditions vary so largely that a rough and ready classification of areas according to rainfall is exceedingly difficult."

"When we turn to Lower Burma we find more variety within the divisions; here again the rain gauge is no guide."

"A glance at Division 1 would at first sight incline one to the belief that in Burma a high rainfall meant a scanty population."

"We know however that rainfall has had nothing to do with the scantiness of the population of the tracts in question."

"In Division II as in Division I, one is confronted with figures that appear at first sight anomalous."

"In Burma the one universal rule is for the uplands to be thinly peopled and the plains, whether wet or dry, thickly; and the only satisfactory division of the country would be into high and low land."

So anomalous and contradictory were the results obtained, that in the Imperial Census Volume, in the course of an attempt "to show that among the various factors which contribute to the complex problem of the distribution of the rural population in India, the amount of rainfall and the regularity of the supply are on the whole the most important",— the figures for Burma drew forth the comment ;—"These variations defy any cut-and-dried formula." After this initial demonstration of the unsuitability of the natural divisions adopted, they were ignored ; and for the remainder of the Report for 1901 the analysis of the various phases of the population proceeded on general lines rather than according to natural divisions. The attempt now being made to utilise the natural divisions of the province to exhibit the different phases of its national life throughout its various manifestations is therefore an innovation. Like all pioneer attempts it will probably achieve only partial success ; it will proceed haltingly, hesitatingly and tentatively ; it may cross and recross its previous tracks ; it may at different times lose its sense of direction and arrive at conflicting conclusions. Such drawbacks are inevitable on the initiation of a new method of presentation. But such minor defects can be excused if the

new method should reduce divergent circumstances to some system of coherence, or if it explains variations which have hitherto defied any prescribed formula.

9. Method of Selecting Natural Divisions.—In proceeding to recast a scheme of natural divisions, it is necessary to follow closely the suggestion of Mr. Lowis that the only satisfactory division is that into high and low land. He however considered that it was impossible to embody this distinction in any formal scheme of district classification. Nevertheless, it is necessary to make the attempt. It may be impossible to effect a division which would be free from all doubtful points, or to secure district boundaries coinciding absolutely with the boundaries of the desired natural divisions. But a sufficiently satisfactory classification has already been effected in the Provincial Gazetteer for Burma as follows :—

"Burma is split up into natural divisions by its rivers and mountain ranges. The valleys of the Irrawaddy, Chindwin and Sittang form a narrow strip of plain land running down the centre of the main mass and widening out into the delta country on either side of Rangoon. The sea forms the southern limit of this strip. On all other sides the central level is enclosed by hill ridges."

This plainly suggests a threefold division which may be thus classified :—

Central Basin—the valleys of the Irrawaddy, Chindwin and Sittang, forming a narrow strip of plain land running down the centre of the main mass ;

Deltaic Plain—the area widening out into the delta country ;

Enveloping Hill Ranges—the hill ridges enclosing the central level on all other sides.

This threefold division corresponds closely with that adopted by Mr. Eales in 1891, the only difference being due to the separation of the enveloping Hill Ranges into the Littoral and Sub-montane regions. Such a separation is necessary for many reasons. An enveloping area is peculiarly difficult to deal with owing to its unwieldy shape. Moreover, in the present instance the area covered is so extensive that many varying physical conditions are included. It is also broken into discontinuous portions by the interposition of specially administered territories whose separate treatment is advisable. After a consideration of the relative merits of other methods of sub-division, a final scheme still corresponding closely to that of 1891 has been adopted. It has not been thought necessary to use the same terminology as that of 1891, as the schemes, although based on the same general principles, are not identical in their constituent districts. Neither has the order of divisions in 1891 been followed, an order suggesting the method of arriving at the divisions finally adopted being preferred.

Natural Divisions.	
As suggested by Provincial Gazetteer.	As described in 1891.
Central Basin ...	(3) Central.
Deltaic Plains ...	(2) Deltaic.
Enveloping Hill Ranges ...	(1) Littoral. (4) Sub-montane.

Natural Divisions.	
1911.	1891.
1. Central Basin ...	(3) Central.
2. Deltaic Plains ...	(2) Deltaic.
3. Northern Hill Districts	(4) Sub-montane.
4. Coast Ranges ...	(1) Littoral.
5. Specially Administered Territories.	Omitted.

10. Natural Divisions finally adopted.—Throughout this report, an endeavour will be made to adhere as closely as circumstances permit to these divisions in the consideration of the various phases presented by the statistics compiled. The administrative districts of the province have been allotted to the several divisions as follows :—

Central Basin.	Deltaic Plains.	Northern Hill Districts.	Coast Ranges.	Specially Administered Territories.
1	2	3	4	5
Prome	Rangoon	Bhamo	Akyab	Northern Shan States
Thayetmyo	Hanthawaddy	Myitkyina	Northern Arakan	Southern Shan States
Pakôkku	Tharrawaddy	Katha	Kyaukpyu	Pakôkku Hill Tracts
Minbu	Pegu	Ruby Mines	Sandoway	Chin Hills
Magwe	Bassein	Upper Chindwin	Salween	
Mandalay	Henzada		Amherst	
Shwebo	Myaungmya		Tavoy	
Sagaing	Ma-ubin		Mergui	
Lower Chindwin	Pyapôn			
Kyauksè	Thatôn			
Meiktila	Toungoo			
Yamèthin				
Myingyan				

It is possible to anticipate numerous criticisms as to their composition. Some of the borderland districts might have been placed with almost equal reason into any one of three of the divisions; or better still, they might have been divided and their components placed into the most suitable divisions. Considerable attention has been given to the question whether Districts should be divided to form the several natural divisions. Such a course would have improved the scheme in the directions of continuity and uniformity. The utilisation of Township boundaries would have produced a much closer approximation to reality. On the other hand, it would have entailed extremely heavy labour in compiling the statements necessary to estimate the value of the facts adduced; and indeed, some of the general statistics such as those contained in the first subsidiary table annexed to this chapter, could not possibly have been compiled had Township boundaries been utilised. The five natural divisions must therefore be regarded as being convenient rather than strictly logical; as combining a few broad general characteristics; and as merging into each other neither with clear, well defined and regular boundaries, nor with a gradual barely perceptible change, but with broad vague confused and irregular outlines. The precision, suggested both by their appearance on the map, and by the symmetry of the subsidiary tables in which their various aspects are viewed, must be discounted by the knowledge that in their essence they are not capable of precise and symmetrical presentation.

Before considering the divisions separately, a rather more detailed description of their general physical characteristics than that given in the preceding paragraph to explain the methods of formation is necessary. The northern boundary of Burma lies in the region where the Himalayas diverge from their general direction of approximately East and West, and turn towards the sea in a series of ranges whose general direction is North and South. Commencing in the lofty and massive hills of the main Himalayan ranges they gradually lose their hold and precipitous character as they approach the sea, their height diminishes, and their valleys broaden out into expansive tracts of level country. The central valley, that containing the Chindwin, the Sittang and the Irrawaddy Rivers, is so extensive that it divides the mountainous regions into distinct systems diverging to the sea coast to the West and East of the province respectively. The Western system after running parallel with the Arakan coast terminates at Cape Negrais. The Eastern system prolongs itself along the Tenasserim Coast and extends beyond the limits of Burmese territory into Siam. The upper portion of the main central valley, an elongated, land-locked stretch of undulating country, comprises the first division,

termed the Central Basin. Nearer the sea the valley broadens out, the enveloping hills diverge widely and the rivers branch out into numerous intersecting creeks flowing through alluvial plains. This region has been adopted as the second natural division under the term Deltaic Plains. The third division, the Northern Hill Districts, comprises the area of divergence of the Burmese mountain ranges from the main Himalayas prior to their division into two distinct systems by the great central valley. The first portion of the continuation of the two separate systems on both sides of the Central Basin forms the fifth division, which from the fact that the territories within its limits have been placed under special administration, has been given the designation "Specially Administered Territories". The scheme of natural divisions is completed by the further continuation of the two systems, now widely separated from each other, along the coasts of Arakan and Tenasserim respectively.

It is remarkable that these natural divisions, formed without regard to meteorological considerations exhibit a striking degree of meteorological harmony. Indeed, but for the three marginal districts of Thatôn, Northern Arakan and Salween, whose positions in the accepted scheme were matters of hesitation, rainfall might have been the primary factor in their formation. This harmony justifies the method of formation adopted, and demonstrates that, if due weight is given to the influence of elevation and contour, the principle of the intimate connection of the distribution of the population with the amount of the rainfall and the regularity of the supply, enunciated in paragraph 39 of the Census Report for India for 1901, is applicable to Burma without anomalies or contradictions.

Natural Divisions.	Rainfall.		Meteorological characteristics.
	Range.	Mean.	
Central Basin ...	27 to 50 ins.	38 ins.	Dry.
Deltaic Plains ...	71 to 215 ,,	117 ,,	Wet.
Northern Hill Districts.	58 to 80 ,,	67 ,,	Moderately wet.
Coast Ranges ...	110 to 227 ,,	174 ,,	Extremely wet.
Specially Administered Territories.	65 to 114 ,,	82 ,,	Moderately wet.

11. Central Basin.—The term "Burma Proper" has already been appropriated to denote the area within the eight administrative divisions of the Province. But, both historically and ethnically, it could be claimed with greater propriety by the region which is prosaically termed the Central Basin. It coincides roughly with the permanent sphere of influence of the rapidly and continuously fluctuating Burmese kingdom as it was gradually fighting its way towards supremacy. It contains the capitals of Prome, Pagan, Ava, Sagaing, Shwebo, Amarapura and Mandalay, each of which has been the centre of decisive incidents in the turgid course of Burmese history. It is the cradle of the Burmese race. It is the venue of the transformation of numerous, petty, diverse and hostile nomadic tribes from the Himalayan region, into a unified and powerful nation, sufficiently cohesive to maintain a virile and aggressive existence between its formidable Indian and Chinese neighbours. Neither the vicissitudes of war, nor the domination of alien conquerors, nor the immigration of numerous and diverse racial elements have been able to arrest this silent, steady and apparently inevitable development towards a unified and highly individualised nationality. The national or racial instinct has been sufficiently intense to avert the consequences of unsuccessful war during an era when such consequences usually approached extermination, and to absorb the intruding elements whether they came as immigrants or as conquerors. This central area, the heart of the Province, exhibits the various characteristics of Burmese life to a degree unattainable in any of the remaining divisions, modified as they are, each and all, by the existence of large numbers of half-absorbed and unabsorbed foreign immigrants.

12. Deltaic Plains.—Just as the Central Basin coincides roughly with the historic Burmese kingdom, so the Deltaic Plains are approximately coterminous with the ancient kingdom of the Talaings. But racial developments within the two divisions have proceeded on widely differing lines. The Talaings were welded into an organized nation long before the Burmese race was evolved from its primitive elements. But their environment proved to be less suited to the growth and extension of a permanent nationality than the more sheltered and protected central portions of the Province. They were exposed to invasions from the North, from the East and from the Sea. They were subject to immigration of races

more numerous, more diverse and less assimilative than those which coalesced to form the Burmese kingdom. The intruding peoples remained apart, centres of disruption, the dominant race not possessing sufficient absorptive power to incorporate them and gather fresh strength from the infusion. The advent of European races hastened a disintegration that had already commenced. With the annexation of Pegu by the British, the final stage of the existence of the Talaings as a separate race was reached. The introduction of a peaceful and settled government transformed the nature of the racial conflict, without mitigating its intensity. The fertile and almost uninhabited deltaic plains became the focus of numerous converging streams of immigration. They attracted the Burmese from their comparatively densely populated kingdom, the Karens from their isolation in the wilder and more remote portions of the newly annexed territory, and Indians of all races and castes from numerous congested areas in India. Events are proving that peace is an even more relentless foe than war to the continued existence of the Talaings as a separate race. They are no longer an independent factor in the new ethnical struggle which is to determine whether the indigenous races of the Province can survive the pressure of the population of India and China under modern conditions of intercourse. They have already capitulated, and are being slowly absorbed by the Burmese, who thus reinforced take precedence in the lower portion, as well as in the central portion of the Province. But whereas in the central basin the precedence is absolute, in the deltaic region it is qualified by the existence of Karens and Indians in large and increasing numbers. The statistics for the two divisions hitherto considered will therefore exhibit different characteristics, those for the latter illustrating the respective positions of several races in their unconscious struggle for supremacy, while those for the former portray the phases of the life of a population which has become racially homogeneous.

13. Northern Hill Districts.—The population of the third natural division remains in a much earlier stage of ethnical development. The diversified surface of the Northern Hill Districts of the province offers almost insuperable obstacles to any tendencies towards aggregation. The numerous mountain ranges and swiftly flowing torrents render communications over large areas a matter of extreme difficulty. The physical characteristics of the country exercise a disintegrating tendency, producing infinite varieties of types, and classes, and tribes, and dialects, even among races of a cognate origin. This tendency is strengthened by the preference of certain races for a life in the valleys while others prefer to remain on the crests and slopes of the hill ranges. Thus, to physical obstacles to easy and frequent intercourse is added the interposition of alien and inharmonious racial elements. Under such circumstances, language and manners, customs and traditions, become highly localised, and are modified with such rapidity that in a comparatively short space of time the inhabitants of localities, not far distant from each other, and having a common origin, gradually adopt differing tribal designations. This stage of unstable racial equilibrium is by no means uniform throughout the area under consideration. It is less pronounced in the southern districts where the surface of the country is less mountainous, and where the Burmese influence has been more effectively exercised. But it gradually intensifies towards the north culminating in the unadministered territories which lie outside the scope of the census operations.

In many respects the figures for the Northern Hill Districts of the province transcend in interest those of any of the other natural divisions. They exhibit the earlier processes of the unification of the Burmese race in active operation. They contain the last vestiges of the Marus, the Lashis, the Szis, and the Hpons, an almost continuous chain of Tibeto-Burman tribes, left behind in the course of their successive immigrations from their original homes in Central Asia. Within their limits is the ancient capital of Tagaung where the rudiments of stability and settled organization introduced by Hindu colonists first began to operate on the primitive scattered and nomadic tribes in the vicinity, ultimately resulting in the creation of a Burmese nationality. The methods by which this transformation from instability and dispersion into stability and cohesion were effected are as visible to-day as when they first began to work. Improvements in communications and security of life and property, are lessening the disruptive tendencies. The members of the more primitive and backward tribes are being absorbed by those of greater influence. The Burmese, the Kachins and the Shans, by the powerful medium of language, are gradually assimilating the tribes with whom they came into contact. To what extent they will succeed, and to what extent they will mutually influence

each other, are problems which the data at present available cannot solve. It must be left to future enquirers, by a comparison with the facts at present ascertained to estimate the strength and resultant of the forces making respectively for dispersion and integration.

14. Coast Ranges.—With the fourth natural division the element of discontinuity is introduced. Not only are the Arakan and Tenasserim coasts separated by the interposition of the delta of the Irrawaddy, but the district of Salween is separated from the Tenasserim littoral districts by a portion of the Thatôn District. But for practical difficulties, it would have been better to have eliminated the second and minor discontinuity by transferring the Hlaingbwè Township of the Thatôn District from the second to the fourth natural division. This would have been a much more satisfactory arrangement in every way. But practical difficulties intervened, and the actual scheme adopted is one of many examples of the triumph of expediency over theoretical perfection. A further difficulty is the inclusion of the Districts of Northern Arakan and Salween in what is primarily a littoral division. Their physical characteristics are however sufficiently uniform with those of the remainder of the division to justify their inclusion as being the least anomalous of all the possible alternatives. This division with its discontinuities and its anomalies must be considered in the light of the opinion of Mr. Lowis that a satisfactory division of the Province by physical characteristics is impossible. It does not claim to be more than an empirical solution of a difficult problem. The intimate connection of Arakan with Burma commenced with the simultaneous and associated evolution of the two main branches of the Burmese race from the same racial ingredients. The destruction of Tagaung by the Shans at some time about the commencement of the Christian era, and of Prome by the Talaings somewhat later, resulted in an acceleration of the dispersal of the tribes and colonists then dwelling in the valley of the Irrawaddy. Remnants of the fugitive Indian colonists from Tagaung, and of the indigenous Saks and Kamrams from the vicinity of Prome were forced over the Yomas into Arakan and introduced the decisive elements in the development of the Arakanese portion of the Burmese race. Proximity to the sea, to Bengal and to Chittagong, has introduced many racial modifications, but the Burmese language and characteristics have been sufficiently firmly implanted to withstand all possibilities of elimination or suppression. The connection of Tenasserim with Burma is much more remote. Until a comparatively recent period, Burmese influence reached Tenasserim either by maritime intercourse through Arakan or indirectly through the Talaings. It was not till the latter part of the eighteenth century that the conquests of Alompra established the Burmese in a region hitherto mainly populated by the Talaings, the Siamese and the Karens. Despite a differing racial development, due to the differing circumstances of their respective hinterlands, the two portions of the littoral hill ranges of the province have several affinities of race and language which render their grouping and treatment in one natural division less anomalous than would at first sight appear.

15. Specially Administered Territories.—The fifth and last of the natural divisions would from its designation appear to be formed on administrative rather than on physical considerations. It is of course convenient that territories under special administration should be isolated in special division of their own, but the formation of the division has not been dictated entirely by considerations of expediency. It comprises the regions where the main Himalayan mass is definitely divided into eastern and western systems by the interposition of the Irrawaddy and the Chindwin Valleys. Its two portions form respectively the eastern and western connections between the coastal ranges and the central continental mountain system. Their administrative peculiarities are largely the resultant of their physical characteristics. They form the only division of the province where Burmese racial influence is of a subordinate character. Their ethnical development has been mainly the product of extra provincial forces. In the western portion the population is composed of the various tribes of the Chin race. In the eastern portion the Shans are predominant, but its natural features are sufficiently like those of the Northern Hill Districts to have induced a similar diversity of minor races, tribes and languages. The main interest of the statistics for this natural division lies in the illumination that can be given as to the effect of settled and distinctive administration on the several races within its limits.

16. Intention of opening Paragraphs.—These introductory paragraphs, commenced with praiseworthy resolutions of extreme brevity, have expanded themselves beyond their original intention. Intended to supply a framework on which the subsequent portions of the report might be formed, they have anticipated much that should only have been suggested. They have stated conclusions with greater precision than a closer consideration of the material available may substantiate. They have possibly over-estimated the importance of the physical features of the country in shaping its racial development. The claims of accuracy and brevity are difficult to reconcile in an anticipatory statement of the treatment of many phases of national life. It is hoped that the necessary modifications of any propositions stated in too general terms will be introduced in the course of subsequent analysis; while the undue length of the introduction may be forgiven if it has suggested a unified and coherent method of dealing with statistics applying to numerous and divergent conditions, and almost irresistably tending towards a discursive consideration.

AREA, POPULATION AND DENSITY.

17. Scope of Chapter.—The natural starting point for a review of the population of a country is a consideration of its distribution at some given time, ignoring its variations and its migrations, and without regard to the age, sex, race, religion or language of its members. Before such aspects as the rate of increase of the inhabitants, or their movements from place to place can be considered, and before their elements of diversity can be estimated, some knowledge of their actual numbers, and their aggregation into rural and urban communities is essential. This chapter will be confined to a presentation of the broad general facts concerning the distribution of the inhabitants of Burma over the various parts of the province on the 10th March 1911, considering in somewhat greater detail the forces operating to determine the numbers who were recorded as dwelling in towns and villages respectively. The material for such a purpose is to be found in Imperial Table I which gives the area and population for each district of the province and in Provincial Table I, which gives the same information for each Township, State or similar minor administrative areas. Seven subsidiary statements printed as an appendix to this chapter have also been compiled, mainly with the intention of illustrating the effect of the physical characteristics of the country on the distribution of its inhabitants. Where necessary to elucidate the text, where a fact is being presented which would otherwise entail reference to several statistical tables, minor statements will be given in the margin, but every effort has been made to avoid in such statements a mere repetition of figures easily accessible.

18. Density of Population.—Within the census area of 230,839 square miles, 12,115,217 inhabitants have been recorded, the average density being 53 persons per square mile. If the sparsely populated, specially administered territories be excluded, 10,610,256 persons were recorded within an area of 164,410 square miles, giving an average density over this restricted area of 65 persons per square mile. The calculation of mean densities of population over such far-reaching areas of widely varying conditions is a misleading operation unless its applications are strictly limited. Its principal utility is to afford a standard of comparison of the distribution of population with that of other periods, other countries, and of its own constituent parts. In themselves, the figures of 53 and 65, the average densities of the whole province and of Burma Proper respectively, are unmeaning, being a mere arithmetical expression of a hypothetical uniformity. But they may serve a useful, if subordinate, function in effecting comparisons which would otherwise be impossible. It is natural that the object of the first comparison should be to ascertain the position which Burma holds within the Indian Empire, with respect

Natural Division.	Area (Square Miles).	Population.	Density.
Central Basin ...	44,445	4,113,894	93
Deltaic Plains ...	34,815	4,332,402	124
Northern Hill Districts	45,522	662,821	15
Coast Ranges ...	39,629	1,501,139	38
Specially Administered Territories.	66,428	1,504,961	23
Burma Proper ...	164,411	10,610,256	65
Province { Census area	230,839	12,115,217	53
Province { Total area	262,000	...	...

to density of population. At the time of writing, the figures for the current census for the remaining provinces are not available, but for the purposes of comparison the figures for the census of 1901, almost equally suitable, will be utilised.

Of the 20 natural divisions into which India was divided in 1901, the dry zone, the coast districts, and the wet zone of Burma occupied respectively the sixteenth, seventeenth and nineteenth positions in order of density of population. Of the provinces, states, and agencies, only Baluchistan, described as a "network of rugged hills, stony plateaux and wastes of windblown sand, interlaced here and there with narrow stretches of cultivable soil", has a density lower than that of Burma. Its relative scarcity of population is enunciated in the general proposition :— "The areas of minimum density lie at the extreme ends of the Empire, Baluchistan, Sind and Rajputana, on the west, Burma and the Brahmaputra Valley on the east." The degree of its disparity is indicated by a comparison of its mean densities of 53 and 65 persons per square mile with a mean density of 167 for the whole of India in 1901. The disparity is not due entirely to the relatively large proportion of sparsely populated mountain regions in Burma. It remains if the three mountain divisions are excluded. In the deltaic plains of Burma the density of population per square mile is 124, whereas in the delta of Bengal in 1901 it amounted to 552. The corresponding figures for the central basin of the Irrawaddy Valley and the Western Gangetic Plain are 93 and 409 respectively.

19. Causes of low Density.—The first comparison instituted emphasises the widely diverging nature of the problems concerning the distribution of the populations of India and Burma respectively. The primary cause of the striking difference is the isolating effect produced by the enveloping mountain ranges, effectually screening Burma from immediate contact with the main currents of continental development. Even now, between the teeming multitudes of the Indian and Chinese plains and the comparatively empty valley of the Irrawaddy, there intervenes a dreaded unknown hill country, inhabited by untamed hill tribes, operating as a barrier to any but the most fragmentary degree of intercourse. In past ages the possibilities of intercommunication must have been even less than at present. The area of this isolated region (especially if the time when the area now occupied by the deltaic plains formed an arm of the sea is considered), was not sufficiently expansive for the spontaneous evolution of an indigenous civilization. Consequently, at a time when settled government had been established over the larger Asiatic areas, the valley of the Irrawaddy remained the habitat of numerous hostile nomadic tribes. Ultimately the influence of the outside world produced an effect. Small groups of colonists from beyond the hills and beyond the sea established themselves. From India, from China and from Cambodia, settlers came and introduced the rudiments of wider national organisation, and under their tutelage, the nomadic tribal life of the more primitive inhabitants was gradually abandoned. In the course of time from these elements the Burmese and the Talaing races established their supremacy in the northern and southern portions of the valley region respectively. But even yet, the conditions necessary for the growth of an expanding population had not been established. For many centuries, the Burmese, the Talaings, and the Shans, who were gradually being driven out of China, waged sanguinary and exterminative wars with one another. Their effect on the growth of population can be gauged by an illustration from beyond the borders of the province. In the course of a discussion on the density of population in Assam, in the Census Report for India for 1901, one of the causes of the scanty population in the Brahmaputra valley cited is "the Burmese invasion of less than a hundred years ago which left the country at the time of our occupation almost denuded of inhabitants." If such an effect could be produced by an isolated incident of war as carried on by the Burmese, the cumulative effect of almost continuous warfare of a similar nature protracted through centuries of time can be imagined. The causes of the scanty population of Burma are now fully explained. The greater portion of the country is of a wild and mountainous character unable to support a large population with the necessaries of life, while the growth of population in the more fertile regions has been impeded by the comparatively late evolution of national life, and the still later introduction of the security of peaceful and settled government.

20. Principal Influences determining Density.—The marginal statement in paragraph 18 above indicates that the arithmetical expression that the mean density of the population of Burma is 53 covers diversities ranging from a density

of 15 persons per square mile in the Northern Hill Districts to one of 124 persons per square mile in the Deltaic plains. Subsidiary Table I appended to this chapter shows how these figures in their turn are but hypothetical assumptions covering greater diversities in their constituent districts, and Provincial Table I of the Statistical Volume shows still further diversities of the densities of minor areas such as townships or states are considered. The process might be repeated indefinitely, each step forward resulting in greater accuracy of presentation, combined with greater difficulty and complexity of analysis. Considering only for the present the broad general differences presented by the mean densities for the five natural divisions of the province, an examination of the various columns of Subsidiary Table I indicates that the principal measurable factors influencing the distribution of the population, in the order of importance, are the percentage of total area culturable, the rainfall, and the extent of irrigation. It is unfortunate that a few questionable figures have crept into column 3 of the table, the percentage of culturable area given for Northern Arakan, though obtained from authoritative sources, being specially open to grave suspicion. Fortunately the amount of disturbance introduced is not sufficient to destroy the utility of the figures for the purposes of illustration. The primary influence of the area culturable on the density of the population is seen by a comparison of columns 2 and 3 of the table. There are numerous departures from an extremely close correspondence between the columns, which will be considered in detail when the density of each separate division is being considered. But the general resultant by natural divisions, the order of density coinciding with the order of percentage of area culturable, is conclusive proof that the principal determinant of density of population in Burma is the area available for cultivation.

Natural Division.	Density.	Percentage.		Mean Rainfall.
		Of total area culturable.	Of irrigated to culturable area.	
Central Basin ...	93	46	18	38
Deltaic Plains ...	124	49	...	117
Northern Hill Districts	15	22	24	67
Coast Ranges ...	38	39	...	174
Specially Administered Territories.	23	...	...	82

No such coincidence exists between the mean density and the rainfall of the five natural divisions. But this lack of correspondence does not mean that the two phenomena are entirely independent. If the operation of other factors be allowed for, the influence of rainfall is seen to have an important though secondary effect on the density of the population. No advantage could possibly be gained by comparing the relative influence of rainfall on population in the delta or in the central basin and in one of the three hilly divisions of the province. Other factors of greater potency are at work to counteract any possible effect due to rainfall only. But the comparison of the influence of rainfall in the Central Basin and in the Deltaic Plains, between them supporting 70 per cent. of the inhabitants of the province, is of the highest value. There, other disturbing conditions, are not sufficiently varied to conceal the correspondence between rainfall and density. With culturable areas in approximately equal proportions (46 and 49 per cent. respectively) the Central Basin, notwithstanding the influence exercised by extensive irrigation supports only 93 persons per square mile, against 124 supported by the more generously watered Deltaic Plains.

The discrepancy between these two figures is much less than a mere consideration of their respective rainfalls would justify. That with a mean rainfall of only 38 inches the Central Basin supports a population of 93 per square mile, while the Deltaic Plains with a rainfall of 117 inches only supports 124 per square mile, must be attributed largely to the influence of irrigation. Eighteen per cent. of the cultivated area of the former is irrigated, while the irrigated area of the latter is too insignificant to be perceptable as a percentage. Other factors besides irrigation are no doubt at work, the principal being the recent opening out of large portions of the delta to cultivation. But the comparatively slight difference of density of population when the difference in rainfall is so disproportionately great, must be attributed in the main to the powerful effect of irrigation to supplement the adverse influence of a low rainfall.

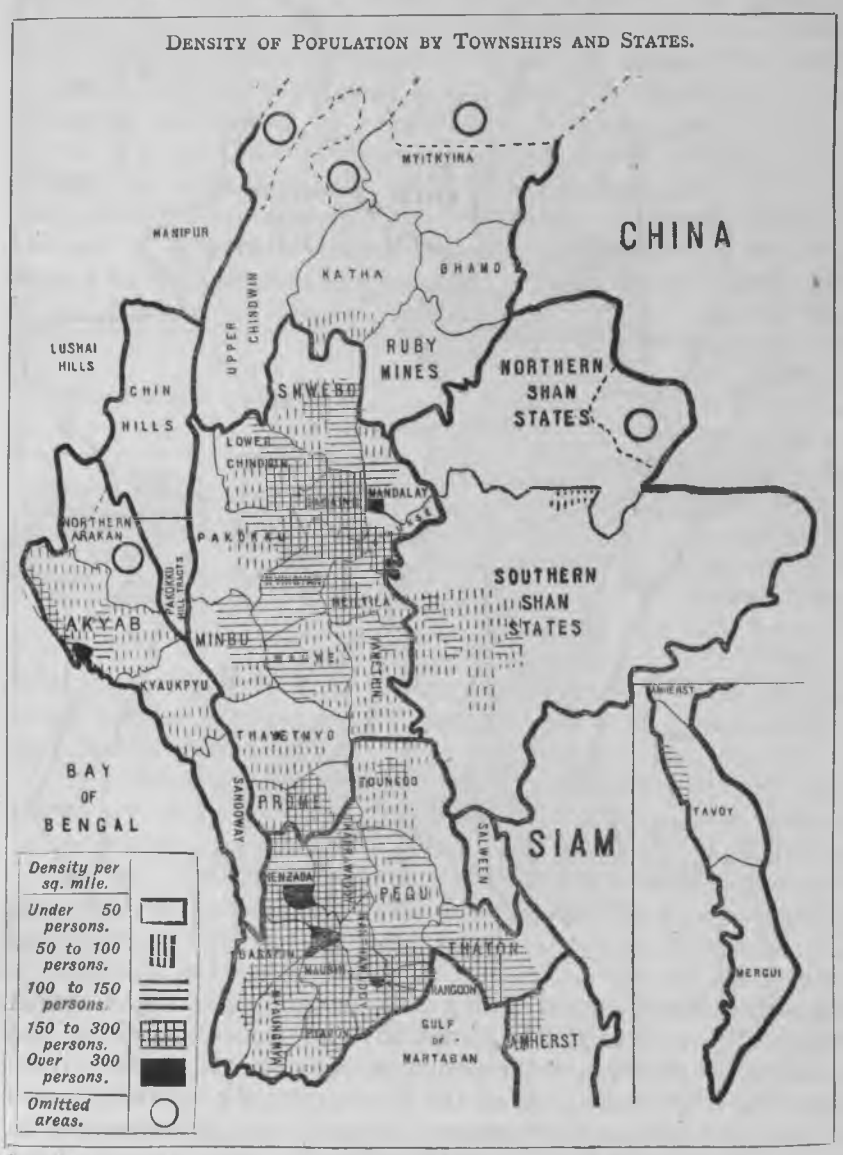
21. Central Basin.—The appearance of the map designed to show the density of population by district areas would suggest that this natural division comprised a nucleus of maximum density in the districts of Mandalay and Sagaing,

a compact block of moderate density comprising the districts of Kyauksè, Myingyan and Meiktila, a crescent of minimum density extending from Shwebo in the north to Thayetmyo and Yamèthin in the south, and an isolated district of medium density in the extreme south. A much more accurate, if less symmetrical distribution of population is shown on the map giving densities by township or state areas. Here the prominent position of Mandalay District is shown to be due to the aggregation of population in Mandalay City and the Urban Township of Amarapura. Considering the rural density only with the help of the second map the region of maximum density is seen to stretch in a south-easterly direction from the east of the Lower Chindwin District to the western portion of Meiktila District. This coincides very closely with the broadest stretch of culturable land within the division, the broad plain formed by the meeting of the valleys of the Irrawaddy and the Chindwin. The District of Sagaing uniquely situated on the peninsula between these two rivers occupies the central position in this tract. With the lowest rainfall of all the districts in the Central Basin, and the smallest proportion of irrigated area, it maintains its position as its most densely populated district by means of an extremely high percentage of culturable area. The adjacent portions of the Lower Chindwin, Myingyan and Pakôkku Districts sustain their large density in a similar manner, their high percentage of culturable area affording a compensation for a scanty rainfall and an absence of irrigation. In the more eastern portions of this tract of maximum density, in the Kyauksè and Meiktila Districts, irrigation plays a much more important part, in the former district being responsible for 76 per cent. of the area cultivated. In the extreme south of the Division a wedge of deltaic land pierces the heart of the Prome District. Indeed both in position in rainfall and in contour of surface it occupies a marginal position partaking partly of the nature of the districts of the Central Basin and partly approximating to those of the Deltaic Plains.

Still following the density by townships as being the more accurate guide, the region of medium density roughly coincides with the valleys of the Irrawaddy and the Chindwin, above and below the region of their confluence in the districts of Shwebo, Mandalay, Lower Chindwin, Pakôkku, Myingyan, Minbu, Magwe, Thayetmyo and Prome, and the valley of the Sittang in Yamèthin District. Here the percentage of culturable area falls, but a moderately high density is sustained generally with the assistance of more or less extensive irrigation. The areas of minimum density are the hilly townships principally on the western and northern

boundaries of the division, but also occupying the greater portion of the Thayetmyo District and the eastern portions of the districts of Mandalay, Kyauksè and Prome. They are occupied largely by hill tribes who practise a wasteful system of cultivation by annually burning the jungle on the hill sides and growing their crops on the areas so cleared.

22. Deltaic Plains.—The map of density by districts shows three well defined degrees of density ; a belt of maximum density running through the centre from north to south and comprising the four districts of Tharrawaddy, Henzada, Ma-ubin and Hanthawaddy ; a block of moderate density occupying the south-western portion of the Division and comprising the three districts of Bassein, Myaungmya and Pyapôn ; and an eastern belt of lesser density formed by the districts of Toungoo, Pegu and Thatôn. As in the Central Basin, the map of density by townships dispels the symmetrical arrangement of the District map. The centres of maximum density are the Henzada and Ma-ubin Districts with populations of 187 and 185 to the square mile. They contain the Henzada and Danubyu Townships with densities of 379 and 302 respectively, the only two rural townships in the province with over 300 persons per square mile. Generally speaking, density is proportionate to culturable area, but this is a proposition which requires considerable amplification. The crude percentages shown in column 3 of Subsidiary Table I do not distinguish between areas well protected from inundation and those on which inundation is an annual liability. Henzada with a comparatively low percentage of culturable area has a high degree of protection. Column 4 gives a much closer approximation to reality in this respect than Column 3, and the comparison between density and area actually cultivated is much more trustworthy. Moreover, population has been settled for a much longer period in the Districts of Henzada, Tharrawaddy, Ma-ubin and the northern portion of the Bassein District, than in the littoral portions of the delta, and it is naturally much less dense in the more recently settled tracts. Allowing for these modifying factors, which cannot easily be reduced to percentages, there is a close correspondence between the density of population and the percentage of culturable area available. The central portion of this Division, with its excellent rainfall and its high percentage of cultivated land, constitutes the area of maximum density of the province. To the west the final spurs of the Arakan Yomas reduce the density of the western border of the Bassein



District, while large areas of reserved forests explain the low density of the southern townships of Myaungmya and Pyapôn. The three eastern districts are but slightly typical of the Division within which they have been placed. Their deltaic areas are comparatively small, and their hilly portions are extensive. The extreme eastern border possesses the natural characteristics of the neighbouring Divisions rather than of the deltaic plains. This diversity is reflected in the density of the population. The impression produced by the uniform appearance of the District density map needs to be corrected by the extremely diversified markings of the map showing density of population by townships. Contour is the primary influence in producing these variations. Rainfall is both timely and sufficient in the eastern districts of this Division and has no effect whatever in the distribution of population.

23. **Northern Hill Districts.**—To adequately appreciate the significance of the figures for the density of this natural Division, it is necessary to draw attention to Subsidiary Table II appended to this Chapter. As originally devised columns 2 and 3 of this table were intended to give particulars of the area and populations of townships having a density of less than 150 persons per square mile. From a purely Indian point of view any distinction of densities less than 150 is superfluous. Had the originally devised statement been adopted 93 per cent. of the census area, and 63 per cent. of the population of Burma would have been massed together in this lowest category. To meet the conditions peculiar to Burma the table has been expanded, and distinctions of densities below 50, from 50 to 100, and from 100 to 150 respectively have been introduced. Yet, notwithstanding this extension, the table has proved inadequate to exhibit the variations of density in the Northern Hill Districts. Only one township with a population of 33,135, exceeds the moderate limit of 50 persons per square mile. It is obvious that a mean density of 15 cannot be due to deficiency of rainfall. With nearly twice the rainfall of the neighbouring Central Basin, this Northern Division has less than one-sixth its density of population. Such a discrepancy is produced by the operation of numerous factors, the principal of which is the mountainous nature of the country. This has produced various secondary conditions, all of which have tended towards a dispersed and scanty population. The resulting difficulties of communication have hampered the introduction of effective administration which even now has not been extended to the whole of this area. The resulting isolation has facilitated the multiplication of numerous semi-independent, semi-barbarous clans and tribes, speaking various languages and dialects. A low scale of civilization prevails except where the Irrawaddy River has served to provide communication with the outside world. It is to these secondary causes of isolation and lack of civilization that the low degree of density of population must be attributed. They are more potent even than the primary factor of the percentage of culturable area available. With 22 per cent. of the total area suited for cultivation only one per cent. has been cultivated, and even this low percentage has not been attained in the Ruby Mines and Myitkyina Districts. A fictitious importance is given to the influence of irrigation by the figures in column 7 of Subsidiary Table I, but these relatively large percentages are concerned with such small absolute areas that their significance may be neglected.

24. **Coast Ranges.**—The respective densities of population of the third and fourth natural divisions of the province are approximately proportionate to their mean rainfall. But the higher density of 38 persons per square mile enjoyed by the Coast Ranges is due rather to their proximity to the sea than to their more abundant rain. The potent influence of isolation in inducing a low standard of civilization with a resulting low density of population has already been mentioned when considering the density of the Northern Hill Districts. This influence has its effect in the more remote portions of the coastal districts, more especially on the districts of Northern Arakan and Salween. But the principal influence at work is the area of available culturable land. It is unfortunate that suspicion attaches to the figures for the Northern Arakan District and to this extent the general principle cannot be tested. If the percentage of culturable area for this district were placed at 6 instead of 86, a far more probable figure, there would be a striking correspondence between columns 2 and 3 of Subsidiary Table I. The principal divergence is for Mergui District, whose extremely low relative density is due to the devastating influences of the continual guerilla warfare carried on within its confines between the Burmese and the Siamese for a period of sixty years prior to its annexation by the British.

25. Specially Administered Territories.—No administrative statistics are available to test the various influences operating to produce the low density of 23 persons per square mile within the Specially Administered Territories of the province. Intermediate between the Northern Hill Districts and the Coast Ranges in position, in rainfall, and in general natural characteristics, they have an intermediate density of population, which is the resultant of similar forces working with a partial or moderating effect. The western portion comprising the Pakôkku Hill Tracts and the Chin Hills are so similar in their general condition to the remote portions of the Northern Hill Districts that the remarks made concerning the latter can be applied with scarcely any reservation to the latter. Very similar conditions apply over the greater portion of the Northern and Southern Shan States. It is only in the states of the Myelat and the Yaunghwe Valley that the existence of large culturable areas and the possibilities of communication with Burma have induced a comparatively high density of population.

26. General Summary.—It is now possible to make a general survey of the various forces which acting in widely diverse conditions produce the existing distribution of population within the province. More especially, it is possible to give an accurate estimate as to how far the principle that the primary influence on density is rainfall modified by irrigation, can be applied in Burma. The results though complex are reducible to complete harmony by an adequate consideration of all the forces operating. In brief, the province may be divided into two regions; the hilly envelope comprising the third, fourth and fifth of the natural divisions adopted, and the central valley and plain comprising the first and second divisions. Throughout the hill regions the influence of rainfall and irrigation are subordinate to that of contour, which operating through the media of communications, civilization, race and culturable area, primarily determines the distribution of the population and the number of its inhabitants. In the plain and valley region, if allowance be first made for the amount of culturable area available, then the amount of rainfall and the regularity of supply are the most important factors, and where the influence of rainfall ceases, that of irrigation begins.

TOWNS AND VILLAGES.

27. Definition of Town.—A complete discussion of the problems affecting the relative strength of the rural and urban population of Burma is a matter of extreme difficulty. It involves a consideration of the racial and industrial characteristics of its indigenous races, of the number and quality of its immigrants, and of the distribution and density of its general population. Moreover it necessitates an estimate of the influence exercised by the land policy of the Government on the tendencies towards rural and urban life respectively. The complexity of the problems is increased by the absence of any scientific definition of what constitutes a town. It is not exclusively a question of size, or of density, or of the nature of the dominating industry, or of the method of Local Government adopted. All these factors are relevant to a greater or less degree. But no criterion exists by which marginal or doubtful cases may be determined. Consequently for census purposes an unscientific and empirical definition in the following terms has been adopted.

Town includes—

(1) Every municipality;

(2) All civil lines not included within Municipal limits;

(3) Every Cantonment;

(4) Every other continuous collection of houses inhabited by not less than 5,000 persons which the Provincial Superintendent may decide to treat as a town for census purposes.

The absence of any precision in the definition leads to an absence of definite meaning in the resultant statistics. Many irrelevant considerations enter into the question whether a residential unit should be constituted a municipality, and numerous anomalies between district and district might be cited. Again, the Provincial Superintendent at the conclusion of census operations might be in a position to determine whether any continuous collection of houses should be treated as a census town; but he is called upon to make the decision at an initial stage when he is necessarily dependent on the opinion of the district officer.

28. Indeterminate Results.—The town of Insein the centre of the constructive activity of the Burma Railways Company, situated about 10 miles north of Rangoon will serve to illustrate the disturbance introduced by the absence of any distinguishing criterion between urban and rural areas. In 1901, although a town of about 11,000 inhabitants and of decided industrial and urban characteristics, it had not been created a municipality owing to a series of irrelevant causes. It was classed as a rural community and exercised a disturbing influence in a double direction, enhancing the rural at the expense of the urban population. It led to the striking conclusion that the district of Hanthawaddy, the most populous district in the whole of Burma, was inhabited by a purely rural population. Its disturbing effects still remain, for having been created a municipality in the interval between the two enumerations, it shows an apparent addition of 13,922 inhabitants to the urban population instead of a real addition of only 3,000 persons.

But it is rather in the contrary direction, in the over-estimation of the urban population, that the disturbance principally operates. This is indicated in paragraph 64 of the India Census Report for 1901 in the following statement:—

"Burma with 9·4 per cent. of its inhabitants living in towns, has in most parts a much smaller urban population than would appear from this figure."

Many of the towns included are almost exclusively agricultural and distributive. They have no special urban function or industry. They serve as centres for the collection, on a more or less retail scale, of the agricultural produce of the surrounding country, distributing in return the general necessaries of life to its inhabitants. A large proportion of their residents are purely agricultural in their pursuits and modes of life. They range from large and important country towns to residential units, not separated by any distinguishing characteristic from the larger villages of the province. It is a matter of accident, rather than of function, whether a community, ranging from 4,000 to 6,000 inhabitants, is enumerated as a town or a village. With such a broad and doubtful border line it is necessary that the figures showing the respective numbers of the rural and urban population of the province should not be accepted without some qualification.

29. Classes of Urban Population.—It is essential first of all to draw a distinction between towns with special industrial or urban characteristics and those primarily of an agricultural or distributive character. Of the 63 towns, there are 14 only to be placed in the former category. Of these, six (Rangoon, Moulmein, Akyab, Bassein, Tavoy and Mergui) are seaports; two (Prome and Henzada) are inland ports of considerable dimensions; two (Insein and Syriam) are industrial communities in the vicinity of Rangoon; two (Mogôk and Yenangyaung) are principally concerned with the extraction of mineral products; Maymyo is a centre of provincial administration, and Mandalay is the centre of Burmese national life in its many aspects. The remaining 49 towns are country towns occupying an intermediate position between the central and industrial units on the one hand and the purely rural communities on the other. Their aggregate population (415,050) is much less than that of the 14 central and industrial towns (712,925). They serve to modify the impression produced by the percentage of 9·3 for the total urban population of the province, their inhabitants accounting for 3·4 per cent., leaving 5·9 per cent. as the measure of the population living under distinctively urban conditions.

Class.	Town.	Population.
Towns with special urban characteristics.	Rangoon ...	293,316
	Mandalay ...	138,299
	Moulmein ...	57,582
	Akyab ...	37,893
	Bassein ...	37,081
	Prome ...	26,911
	Tavoy ...	25,074
	Henzada ...	25,052
	Mergui ...	14,889
	Insein ...	13,992
	Maymyo ...	11,974
	Mogôk ...	11,069
	Syriam ...	10,897
	Yenangyaung	8,896
	Total 14 (towns)	712,925
Agricultural and Distributive.	49 towns ...	415,050
Total (63 towns) ...		1,127,975

Class of Town.	No. of Towns.	Population.	Percentage of Provincial Population.
Central and Industrial ...	14	712,925	5·9
Country	49	415,050	3·4
Total ...	63	1,127,975	9·3

30. Comparison with 1901.—It is convenient in dealing with the question of urban population to ignore the rigid distinction between statical distribution and

dynamic variation which is necessary in the treatment of the population as a whole. Consequently the present discussion will anticipate much that should logically be deferred to the next Chapter. It is one of the numerous instances in which, in order to avoid a fragmentary consideration of some particular problem, the claims of theoretical arrangement must give place to those of practical expediency. The first difficulty arises in the want of correspondence in the constituent units of the urban populations of 1901 and 1911 respectively. Of the 52 census towns in 1901, and the 63 census towns of 1911, 48 only are common to both. Three of the towns included in 1901 have fallen out of the list, and 14 new towns have taken their place in 1911, while Pagan Municipality has been transformed both in name and in status into Nyaung-u Notified Area. For the sake of convenience Pagan is treated as an excluded town, and Nyaung-u as a new town now included for the first time. A further difficulty in effecting a comparison is the transfer of large urban and suburban populations from Hanthawaddy District to the City of Rangoon in the interval between the two enumerations. The marginal statement succeeds in isolating the disturbing constituents, and the respective figures for the remaining 47 coincident towns are of great value in estimating the conditions of urban life within the province.

Towns.	Population.	
	1911.	1901.
52 towns (1901) ...	...	989,938
4 excluded towns ...	...	18,945
Rangoon (1901 boundary)	...	734,881
47 coincident towns ...	728,926	736,112
Rangoon (1911 boundary)	293,316	...
15 new towns ...	105,690	...
63 towns (1911) ...	1,127,975	...

31. Contrary tendencies of Urban Population.—It is remarkable that the aggregate population of the 47 comparable towns should have been 7,143 greater in 1901 than in 1911. Of course, this result is largely due to the exclusion of Rangoon from, and the inclusion of Mandalay within, the comparison. But even allowing for this the figures are sufficiently striking to justify a more detailed examination. Turning to Imperial Table IV, the entries in columns 9 and 10 are full of significance. In 1901 there are 19 towns out of a total of 48 showing a decrease of population during the preceding decade. In 1911 there are 17 towns showing a decrease, and one (Ngathainggyaung) with a stationary population. Thus over a period of two decades, while the population of the province has been steadily increasing at rates of 20 and 15·2 per cent., respectively, portions of its urban population have been subject to remarkable fluctuations. The exact degree of fluctuation has been obscured by extraneous factors; by the successive inclusion of fresh rural areas within the census limits, by the disproportionate expansion of the City of Rangoon, and by the variation in the constituent towns contributing to the aggregate total. Under such conditions percentages are but partial or deceptive methods of presenting the variations. The inclusion of fresh rural areas has not been sufficiently great to affect the figures for the past decade. The percentage of urban to the total population of the province has fallen slightly from 9·4 to 9·3, whereas for Burma Proper, an identical area for both enumerations, the percentage has similarly fallen from 10·7 to 10·6. The significance of these figures lies not so much in the fact that there has been a fall in the percentage, as in the fact that the fall has occurred despite the net gain of a population of 86,745 in the 11 extra towns enumerated.

Percentage of Urban Population.			
—	1911.	1901.	1891.
Burma Proper ...	10·6	10·7	12·4
Province ...	9·3	9·4	12·4

Urban changes.	No.	Population.
New towns added	15	105,690 (1911)
Old towns excluded	4	18,945 (1901)
Resultant ...	11	86,745

The extremely slight difference between the percentages of the urban population for 1901 and 1911, respectively, suggests that the loss of population by certain towns has been compensated by its increase in other towns and by the growth of the 15 new urban centres now included for the first time. It would almost appear as if the loss in one direction had been made good in another, leaving the proportion of urban to total population practically unaffected. Such a

conclusion, though apparently justified by the figures would not be consistent with the facts. It may safely be said with respect to 13 out of the 15 new towns that they exhibit exactly the same characteristics under a different label. For instance, Insein was labelled a rural area in 1901 and is now labelled an urban area, but its characteristics have been the same at both periods. Syriam and Mogôk are the only two new towns which could be claimed as genuine additions to the urban population. The percentage has only been maintained by the transfer of large numbers of persons from one class to another, by the operation of irrelevant causes, without any corresponding change in conditions.

The examination of totals and general percentages having proved ineffectual in obtaining credible results, nothing remains but a detailed analysis of the figures for individual towns. They may be divided into three groups according as they exhibit progressive tendencies, or are in a declining or stationary condition, or are entered as towns for the first time. It will simplify matters to assume, quite legitimately, that the new towns should be entered as being progressive. If this assumption be made, the 63 census towns comprise 37 progressive towns and 26 which are stationary or declining. Roughly, three-sevenths of the urban population of the province live in towns which seem to be divorced entirely from the general progressive life of the province. The line of division between progressive and non-progressive towns has no relation whatever to the distinction, previously considered, between country towns and towns with special urban characteristics. Indeed, four out of the six largest industrial towns are to be found in the non-progressive category. The causes underlying the complex movements of the urban population though allied to the primary distinction between industrial and agricultural towns do not follow closely their line of cleavage.

Progressive Towns.		Declining or Stationary Towns.		New Towns.	
Name.	Population.	Name.	Population.	Name.	Population.
Sandoway	3,360	Akyab ...	37,893	Syriam ...	10,897
Rangoon...	293,316	Kyaukpyu	3,323	Insein ...	13,992
Thônzè ...	6,929	Prome ...	26,911	Kyônpyaw	5,429
Letpadan	9,247	Shwedaung	9,021	Wakèma	7,031
Gyobingauk	7,410	Ngathaing-gyaung.	7,182	Danabyu	7,695
Pegu ...	17,104			Pyapôn ...	7,066
Paungdè	12,104	Zalun ...	6,155	Kyaiklat	8,438
Bassein ...	37,081	Lemyethna	5,372	Bogale ...	3,279
Henzada	25,052	Kyangin ...	8,386	Dedayè ...	6,189
Myanaung	8,331	Yandoon ...	12,500	Sinbyugyun	5,053
Myaung-mya.	6,561	Toungoo ...	18,546	Myitkyina	5,663
		Shwegyin	8,037	Mogôk ...	11,069
Ma-ubin ...	7,022	Kyaikto ...	6,127	Kindat ...	3,592
Thatôn ...	14,392	Moulmein	57,582	Pyawbwè ..	4,571
Tavoy ...	25,074	Thayetmyo	11,577	Nyaung-u	5,726
Mergui ...	14,889	Pakôkku	20,010		
Allan-Ywa taung.	12,894	Minbu ...	5,501		
		Salin ...	7,547		
Taung-dwingyi.	6,402	Magwe ...	4,967		
	11,974	Mandalay	138,299		
Maymyo		Amarapura	7,866		
Shwebo ...	10,629	Bhamo ...	9,762		
Mônywa ...	8,628	Kyauksè ...	5,877		
Yenan-gyaung.	8,896	Meiktila ...	7,076		
		Yamèthin	8,083		
Sagaing ..	10,937	Pyinmana	14,074		
		Myingyan	16,379		
22	558,232	26	464,053	15	105,690

Nature of Town.	No. of Towns.	Population.	Percentage of total population.
New and progressive ...	37	663,922	5·3
Declining and stationary ...	26	464,053	4·0
Total ...	63	1,127,975	9·3

32. Effect of Agricultural Development on Urban Population.—It is possible to give some specific, conclusive, local reason in each instance for the failure of the 26 non-progressive towns to keep pace with the general movement of the province for the past twenty years. And yet such detailed explanations would be of little value. The symptoms are too wide spread to be the result of the operation of purely local causes. There must be some broad, potent influence, operating over a wide range of space and time, to produce so extensive and so unexpected a result. An untimely outbreak of plague, the silting of a river channel, the deterrent effect of Municipal taxation, and similar minor causes, may be ostensible and genuine immediate factors in the diminution of the population of a town. But such factors could not simultaneously prevail over a wide area if the urban population of the province were proportionate to the economic functions it performed. The existence of so large a proportion of non-progressive towns in

a rapidly progressive province indicates some mal-adjustment of population gradually being corrected by the transfer of the superfluous urban inhabitants to localities where their services are more urgently required. It suggests a natural spontaneous movement back to the land. It implies an exact reversal of the economic conditions which are driving the surplus rural population of Western Europe into the towns. It is in fact due to a comprehensive instinctive effort to effect the colonisation of the waste places of the province. The movement from the towns is but one aspect of the general movement towards its available culturable areas. It is in this direction, and not in a minute examination of petty, partial and diverse local causes, that the true solution of the problems of the urban population of Burma is to be found. In the past, circumstances have permitted a larger concentration of the population in towns than modern conditions will support. The Burman is extremely fond of the amenities of town life, but is most averse to the hard, rigid discipline essential to modern urban industry. His ideal is an urban life with an agricultural occupation. Want of security and the comparatively small area of cultivated land tended in the past towards its realisation. But with the advent of peace and security the possible area of cultivation has widely extended. High prices, a strong export demand, the certainty of a market, and land waiting to be cultivated, have combined to exert a strong economic pressure towards areas remote from the possibility of urban residence. The policy of the Government in preventing the wholesale appropriation of available areas, and in making a plot of 15 acres the unit of distribution, has tended to effect a wide dispersal of population, and to perpetuate the conditions of dispersion. The object of the government, the establishment of a peasant proprietary on the land gradually coming under occupation, has stimulated the growth of an agricultural, rather than of an urban population. It has happened that some towns, peculiarly well situated for the collection and transport of the enhanced agricultural products, have benefited by the new conditions. Others, with well established industries, have progressed in spite of them. But for the 26 towns which have been classed as non-progressive it can generally be concluded that whatever may be the local immediate factor ostensibly operating, they have ceased to progress because the demand for agricultural extension has been irresistably attracting their actual or potential surplus population.

33. City of Rangoon.—The population of Rangoon increased from 234,881 in 1901 to 293,316 in 1911. Part of this increase was due to an extension of its limits, a suburban area on its northern boundary and an urban area on the Kanaungto Creek being transferred from the Hanthawaddy District. The population for 1901 within the boundaries, as subsequently adjusted, has been calculated to be 245,430. The increase of the population since 1901 is therefore 47,886 or approximately 20 per cent. Since the first census in 1872, the population has increased by 194,571 or 197 per cent. on its original population of 98,745.

Population of Rangoon adjusted to 1911 boundaries.

Year.	Population.	Increase.	
		Actual.	Per cent.
1872	98,745	...	...
1881	134,176	35,431	36
1891	182,080	47,904	36
1901	245,430	63,350	35
1911	293,316	47,886	20
Increase since 1872		194,571	197

Considerable surprise was expressed when the figures were published. It was confidently anticipated that they would exceed 300,000, and in many quarters a much higher figure was anticipated. The rate of increase since the first census was taken in 1872 had been consistently about 35 or 36 per cent. and a similar rate was assumed to have been in operation during the decade just completed. Allowing for the population introduced by the change in area, the actual rate of increase of 20 per cent. was considered to be unduly low. The figures, however came as no surprise to persons who had really studied the conditions affecting the progress of population in Rangoon for the period 1901 to 1911. Its commencement was signalised by a land boom of extensive dimensions the effects of which are felt in the commercial activity of the city up till the present day. Towards the close of the period a mania for stock exchange speculation raged, followed in due course by a reaction which was particularly acute at the time of the census. Thus, although there has been a general period of advancement and prosperity, their full effects have not been realized. Much capital that would otherwise have been devoted to legitimate enterprise has been dissipated in fruitless speculations in land and shares. The lessened rate of increase is a reflection of the influences

which have been operating to minimise the generally advancing prosperity of the city.

But apart entirely from local considerations, a new influence has recently arisen affecting not only the population of Rangoon but also the broader question of the immigration into the province of Burma. The striking development of the rubber industry in the Federated Malay States within the past few years has led to a large demand for cooly labour from Southern India. The sources from which Rangoon has been accustomed to draw its supplies of manual labour are now subjected to a drain in other directions. It is not possible to anticipate the consideration of the general question of immigration into Burma, which will be given in Chapter III of this Volume. But it may be briefly stated that the effect of the competition thus introduced has been to materially diminish the net gain to the population of the province by immigration. How vitally the population of Rangoon is effected by such an influence can only be gauged by reference to the extreme disparity existing between its male and female population of 208,111 and 85,205 respectively. The natural increase of any community is proportionate to its female, rather than to its total, population. Any undue shortage in the proportion of females requires compensation by immigration from outside sources. A glance forward to column 6 of Subsidiary Table III of Chapter II showing a deficiency of 53,745 for the decade in the number of births compared with the number of deaths affords another illustration of the same principle. Even to maintain the population of Rangoon in a state of equilibrium, immigration from outside sources is essential; but to overcome a natural tendency to decreasing numbers and to produce an enhancement of 35 per cent. within a period of ten years, requires a combination of extremely favourable internal and external conditions. Such a combination has not existed. Both internally and externally, forces have been operating to prevent the maintenance of the rate of increase of the population of Rangoon at the rate which it has previously been progressing.

34. Overcrowding in Rangoon.—The problem of overcrowding in Burma arises only so far as the central area of the city of Rangoon is concerned. A superficial study of the figures for Rangoon as given in the various columns of Subsidiary Table VII would suggest that it is much less acute in 1911 than it was in 1901. The number of houses per square mile has diminished from 2,064 to 1,774, and the average number of inhabitants per house has diminished from 5·99 to 5·91. But these changes are not due to any such improvement in housing conditions. They are the resultant of an extension of the city boundaries to include an area of nine square miles relatively less densely populated than the original area. If a comparison be made of the population of equivalent areas for the years 1901 and 1911, it will be seen that the density of population, instead of diminishing from 12,362 to 10,476 per square mile, has in reality increased from 8,765 to the latter figure. The problem is very largely not one of space but of racial habits. The immigrant cooly from Southern India is accustomed to live in overcrowded barracks whatever may be the area of dwelling space available. It is probable that he lives in less congested conditions in Rangoon where skilled supervision is effective in controlling the more extreme abuses of overcrowding, than in the surrounding district where no such supervision is exercised. Overcrowding caused by want of space is manifest in the area lying between Godwin Road and Judah Ezekiel Street, as its western and eastern boundaries, and between Montgomery, Fraser, Canal Streets and the Rangoon River. The population of this area of 468·7 acres has increased from 73,309 to 80,942 in the past ten years. The resultant density of 110,524 persons per square mile is exceedingly high, though it is largely exceeded by the more congested portions of other cities in India. Thus, in the Colootola, Jorasanko and Joraban wards in the heart of the old town of Calcutta, the densities of population were 281, 202 and 201 persons per acre, respectively and in the headquarters of the Jain community in

	1901.	1901 (Present boundaries).	1911.
Population ...	234,881	245,430	293,316
Area (sq. miles) ...	19	28	28
Population per sq. mile	12,362	8,765	10,476
Houses per sq. mile ...	2,064	Not calculated.	1,774
Persons per house ...	5·99		5·91

Congested area of Rangoon.

	1901.	1911.
Area (acres) ...	468·7	468·7
Population ...	73,309	80,942
Density per sq. mile	100,102	110,524

Bombay, densities of 598 and 556 persons per acre are recorded. Compared with these densities, that of 110, 524 persons per square mile, or 172 per acre, is not excessive for the most congested quarter of the City of Rangoon.

35. City of Mandalay.—The most striking phenomenon revealed by the census figures for 1911 is the large decline in the population of the city of Mandalay. Some diminution in numbers was anticipated. But a decrease of 45,517 persons, or 25 per pent. of the population of 1901 was beyond all expectations. Yet the figures are explainable by a consideration of the cumulative effect of all the adverse influences to which the city has been subjected. The creation of Mandalay as a Burmese capital is too recent for its population to have become rooted to the spot by the force of lengthy association. With the abolition of the Burmese Court the period of decline commenced. For a period this was masked by counteracting influences. The construction of a railway with Mandalay as its extreme northern terminus enhanced its commercial activity, while its adoption as the military and administrative centre of the recently annexed territory partly compensated for the loss of the Court. It was not till the railway was extended northwards towards Myitkyina and through the Shan States to Lashio that the extent of the decline was fully manifested. Its activity as a collecting and distributing centre for the northern portions of Burma and the Shan States was greatly curtailed, and its area of commercial dominance was reduced to extremely narrow dimensions. Almost simultaneously, with the creation of a hill station at Maymyo, the importance of Mandalay as a military and administrative centre rapidly decreased. Other influences have been at work. For several years plague has acted as an effectual factor in the dispersal of the population of the declining city. At the date of the census it was estimated that owing to this cause nearly 10,000 of its population were temporarily absent. But when a city is in a stage of decline, intentions of temporary absence are apt to result in permanent departure. Another contributory to the magnitude of the decrease was an extensive fire which destroyed over a square mile of the most populous portion of the city a few months prior to the census enumeration. And during the entire period of the operation of these adverse influences of fire, plague and commercial and administrative readjustments there was a strong insistent demand for population to cultivate the waste areas of the province.

Year.	Population.	Decrease.	
		Actual.	Per cent.
1891	188,815	...	...
1901	183,816	4,999	3
1911	138,299	45,517	25

It is to the cumulative effect of these forces both national and local, the broad general trend of national life in combination with the rapid incisive movements of local conditions, that the remarkable decrease in the population of the City of Mandalay is to be attributed. The successive declines of 3 and 25 per cent. in the population of the second city of a province, whose expansion for the same periods has been at the rates of 20 and 15 per cent., respectively, is an exceptional phenomenon which at first appears to elude explanation. But a careful analysis of the conditions obtaining has proved that the figures are a credible representation of the resultant of the forces operating.

36. Urban Population by Religions.—In the course of the preceding discussion, a few suggestions may be found to the effect that the movement from town to country is largely racial in its operation. No analysis of the urban population by races has been effected, but racial and religious differences coincide so closely that the figures for religion may be utilized with almost equal effect. The Buddhist population comprises the indigenous races (preponderantly Burmese) in towns. The Animist urban population is almost exclusively Chinese, the indigenous Animist races not being town dwellers. The figures for Hindus and Mahomedans can be taken as representing either immigrants from India or their descendants. The Christian

Religion.	1911.		1901.	
	Actual.	Percentage.	Actual.	Percentage.
Buddhist ...	693,589	61·5	668,623	67·6
Animist ...	24,821	2·2	13,294	1·3
Hindu ...	207,601	18·4	155,563	15·7
Mahomedan ...	147,907	13·1	115,808	11·7
Christian ...	47,099	4·2	32,457	3·3
Others ...	6,958	·6	4,193	·4
Total ...	1,127,975	100	989,938	100

population is rather less homogeneous, comprising Europeans, Anglo-Indians and Indian and indigenous Christians of various races.

The most trustworthy estimate of the extent of the movement from town to country is to be found in the relative decrease in the Buddhist urban population. Although reinforced by a net gain of eleven towns mainly Buddhist in character, the percentage of Buddhists to the total urban population has declined in the decade from 67·6 per cent. to 61·5 per cent. The actual increase of approximately 25,000 is far less than the number of Buddhists nominally added to the urban population by the inclusion of the eleven extra towns. Simultaneously, with this relative, and in some respects actual, decrease of the Buddhist population, there has been an increase, both actual and relative, in all the other constituent elements. The figures for Animists suggest that the Chinese population in the towns has nearly doubled. Those for Hindus and Mahomedans demonstrate that the Indian residents have increased from 27·4 per cent. to 31·5 per cent. and now form nearly one-third of the total urban population.

Subsidiary Table IV presents another aspect of the composition of the urban population of the Province. Over one-half of its Hindu inhabitants and over one-third of its Mahomedan inhabitants live in towns compared with so low a proportion as 7·5 per cent. of the Buddhist community. The discrepancy between these proportions is even greater if specific portions of the Province are made the basis of the comparison. In the Deltaic Plains, the Hindus to the extent of 53·7 per cent. and the Mahomedans to the extent of 63·1 per cent. of their numbers are town dwellers as compared with a Buddhist proportion of only 8 per cent. In the Central Basin, considerably more than half of both the Hindu and Mahomedan populations reside within town limits. An apparent modification to the general rule shown by the low percentage of 13·9 for the Mahomedan population dwelling in the Coast Towns. This is due to the fact that a large number of indigenous, and therefore agricultural, Mahomedans are to be found in most of the littoral districts of the Province. Apart from this exception, over one-half of the Hindu and Mahomedan immigrants and their descendants within the province are congregated within its towns. While the Buddhist races have been tending towards the resumption of a more agricultural life, the immigrant races have been supplying the demand for population suited to the requirements of modern industrial conditions. It is easy to magnify the forces at work and to over-estimate their resultant effects. Modern industrial conditions are in their infancy. They affect but a small portion of the population, even of the urban population. The extent to which they have actually operated may be gauged by a separate consideration of the six towns where they have been most effective, and a comparison of the religious distribution of their inhabitants with that of the remaining fifty-seven towns in the province. The six selected towns are the four large ports of Rangoon, Moulmein, Akyab and Bassein, and the two industrial towns of Insein and Syriam which may almost be considered as suburbs of Rangoon. They comprise 450,761 inhabitants, or approximately 3·7 per cent. of the total population. Within their limits, the proportion of the Buddhist population has declined till it only forms 37·2 per cent. of the whole. Their inhabitants professing other religions, and therefore principally non-indigenous, comprise the remaining 62·8 per cent. Over the remaining fifty-seven towns which include the majority of the provincial urban population, the indigenous Buddhist population still amounts to 77·7 per cent. of the whole, leaving less than a quarter to be distributed among the various immigrant populations.

Religion.	Six selected Towns.		Remaining fifty-seven Towns.	
	Actual.	Percentage.	Actual.	Percentage.
Buddhist ...	167,520	37·2	526,069	77·7
Animist ...	10,764	2·4	14,057	2·1
Hindu ...	150,113	33·3	57,488	8·5
Mahomedan ...	89,139	19·8	58,768	8·7
Christian ...	29,938	6·6	17,161	2·5
Others ...	3,287	·7	3,671	·5
Total ...	450,761	100	677,214	100

37. Summary.—It is a matter of extreme difficulty to obtain a correct conclusion from the total figures and the general percentages of the urban population of Burma. The real facts are obscured, partly by the want of coincidence of the constituent towns at successive enumerations, partly by the absence of any scientific distinction between urban and rural populations, and partly by a want of uniformity in the manifestation of the operating forces. But penetrating beneath

this obscurity, two definite and distinct tendencies are observed. The first is a slow but continuous transfer of a portion of the indigenous population from the towns to the available uncultivated areas of the province. The second is a complementary invasion of the towns by the members of alien races who are quite prepared to undertake the mechanical and routine occupations of modern industry. The two movements act and react upon one another. At the present time they are tending towards a racial cleavage between the rural and urban populations of the province. But the tendency is by no means extensive, or established, or permanent, or inevitable. The occupation of available land by the indigenous races is not a process capable of indefinite extension. Neither is the continued future immigration of Indians and Chinese in large numbers a matter of absolute certainty. For the time being, the Burmese and their allied races find their greatest economic advantage in an agricultural direction. But when the conditions change, when the available culturable areas diminish, and their occupation becomes less profitable, it is probable that their powers of adaptation will be adequate to check the present tendencies, and to secure a predominant influence on both the urban and the rural development of Burmese national life.

38. Burmese Villages.—It is singular that in a work touching with illuminating effect almost every aspect of Burmese life, a special consideration of the general village life of the people should have been omitted. Although 92·5 per cent. of the Buddhist inhabitants of Burma proper reside in villages, there is no chapter on village life in Shway Yoe's standard work on the Burman, his life and notions. It might almost be said that village life is so inseparable from life in general in Burma, that it pervades every chapter of the book, and that its treatment in a special chapter would be less effective than the assumption throughout the volumes that each and every phase is portrayed with the village as the background. Though the Burman ideal is to dwell in a town, it is seldom capable of realisation; and it is almost impossible to obtain an impression of his national characteristics except in a setting of village life.

The Burman satisfies his craving for the amenities of social life by congregating in the largest village which will permit of reasonable access to his daily occupation. The solitary farmhouse in the centre of the agricultural holding is not a feature of the Burmese landscape. Conditions of security of life and property, rigidly enforced by legislative enactments, preclude the possibility of any such system. During the cultivating season a temporary hut in the vicinity of a holding distant from a village may be necessary, and permission is readily given by the administrative authorities to meet such cases. But with the harvesting of the crop such dwellings are dismantled and abandoned, and village life resumes its accustomed course.

In its rudimentary form, the Burmese village consists of two long rows of bamboo dwellings extending on each side of the road which forms its means of communication with the outer world. There are necessary modifications where it is situated on the banks of a stream or on one bank of a larger river. In the larger villages shorter supplementary roads run parallel with the main artery and are connected with it by means of small subsidiary pathways. The main road is generally raised and occasionally paved with bricks set edgeways in chessboard patterns. In a conspicuous part of the village, usually at one of its extremities, are the pagodas, the monasteries, the shrines and the rest-houses essential to the complete religious life of the community. In Upper Burma all villages are enclosed in a fence of thorn or bamboo, two or more gates, which are closed and guarded at night, giving access from the main points of approach. In most districts of Lower Burma, partly owing to the custom of fencing having been allowed to lapse after the British occupation, partly to the difficulty of obtaining fencing material, and partly to the rapid rate of expansion, villages are rarely fenced, though in a few districts adjoining Upper Burma fencing is rigidly enforced. Each house is detached from its neighbours and is set in a compound combining in various degrees the respective characteristics of orchard, farmyard and vegetable garden. Industrially, the Burmese village is not a self-sufficing unit to the same extent as the village in India. For the greater part of the year it is independent of the outside world for its requirements, but as harvest approaches it is drawn into contact with the wider life of the community in many ways. First, the peripatetic broker, the representative of some local or central paddy firm, arrives to arrange for the purchase of the crops the price paid generally varying inversely with the necessity for an immediate payment or advance. Then the harvest and the movement of the crops to the nearest railway station or landing place occurs,

followed immediately by the arrival of travelling pedlars with general requirements for the villagers until their next harvest matures. Necessities having been provided and religious obligations fulfilled, surplus proceeds are usually devoted to recreative purposes, theatrical companies travelling from village to village being the principal means of satisfaction. After a few eventful months, the village lapses into its state of semi-independence of the external world until its next harvest approaches. The administrative control of the village is vested in a village headman whose jurisdiction generally includes two or more of the residential units just described. He has extensive powers of administration including the trial of petty offences, the decision of minor civil disputes, and now he is being gradually made the principal revenue collecting agency of the province. Indeed in all matters he is the point of contact of the central government with the people at large. Other aspects of village life will be considered incidentally in their appropriate chapters; but the brief description of its broad characteristics now given is necessary before the connection between the census figures and the actual facts they purport to portray can be appreciated.

39. Administrative Villages.—There are two methods by which the statistics relating to village life can be presented, according to residential or administrative village units. Both are equally untrustworthy. The administrative village has been in a state of transition for the past twenty years. In order that the village headman shall receive a remuneration proportionate to his responsibilities the methods of collection of revenue are being transformed. The more centralised collecting agencies are gradually being abolished, and the administrative village, under the name of the Village-tract, is now becoming the unit of revenue collection, as well as the unit of general administration. Consequently, many considerations irrelevant to the village life of the community enter into its formation. It may contain one or more separate hamlets within its borders, or its boundaries may cut with seeming irrelevancy through the heart of some large central residential unit. The governing principles determining its formation are, that its area must not be too great for the control of a village headman, and its revenues must be sufficient to afford by the commission on their collection an adequate remuneration for his various responsibilities. It is obvious that any figures as to the number of inhabitants or houses per village tract are governed by these administrative considerations. They are divorced from the actual intimate life of the people. An increase in the average population per village tract may mean either a readjustment, by amalgamation or subdivision, of the official scheme of jurisdictions, a process in continual action. It may mean the creation of fresh hamlets and may conceivably accompany a dispersal of population from the central hamlet of the tract.

40. Residential Villages.—To obviate such anomalies and to obtain figures really representing the village life of the community, Mr. Lowis in 1901 made a bold attempt to classify the village population by residential hamlets instead of by administrative village tracts. It is doubtful if by this method any closer approach to reality was effected. In order to accomplish the actual work of enumeration the administrative village must be recognised. It forms the only conceivable means by which the record of the enumeration results can be effected. But it has been seen that the administrative and residential village boundaries do not necessarily correspond. A large residential village may fall within five or six village tracts. It is a centre from which the surrounding country is governed, each village tract radiating from the common centre and containing as its nucleus a sector from the central village. All such sectors must be treated separately in the actual course of enumeration, and it is difficult to conceive machinery which would effect the amalgamation of the severed portions at any subsequent period. Consequently such a central village, a common feature in the administration of most districts in the province, would be entered several times in the final returns as a number of smaller separate units. Furthermore, camps, landing places, temporary collections of huts, and any places which need to be formed into separate census units, without the most rigid supervision are liable to be entered as actual residential units. None of the census registers give information which enables the residential unit to be automatically distinguished from the census unit in the great majority of cases. Except where such an automatic check is possible, the census block is entered as a residential unit and tends to unduly increase the number of villages with a small population. So doubtful were the advantages of the classification by residential units, that at a conference held in

February 1910 Mr. Lowis was of the opinion that existing conditions were such that he would be inclined to favour that adoption of the village tract as the census unit. A more complete discussion of the comparative disabilities of the two alternative methods of presentation is given in the companion volume devoted to census technique and administration.

41. Village Population.—It is obvious that for many reasons no trustworthy conclusions concerning village life can be deduced from any figures that can be presented. In the census between the enumerations of 1891 and 1911, a different unit of classification was adopted, entirely precluding the possibility of effective comparison. Nor, if the intermediate figures for 1901 be eliminated from the comparison, is the result any more reliable. The reduction in the number of villages in Burma proper from 28,709 in 1891 to 18,640 in 1911 represents technical and administrative changes rather than any change in the actual numbers of villages existing at these respective dates. In 1891, the administrative village had not crystallized into a unit essential to all branches of the administration. It had not been numbered and registered. It had not even been given an official designation, and was generally referred to obliquely as to the jurisdiction of a Village Headman. Under such circumstances, there was no means of checking the accuracy of the number of Villages returned. For the current census, any departure in the number of census villages from the official lists of village tracts maintained at the district headquarters was a source of enquiry, continued until the discrepancies were reconciled. A comparison between the freshly created units of 1891 and the finished products of 1911 is devoid of value. But even if a purely statical analysis of the village population is attempted, the results are equally inconclusive. The fact that the average number of houses in a village is 105 simply indicates that experience has led to the formation of village tracts containing on an average this number of houses. They may be concentrated in one large central village or separated in a series of hamlets at a considerable distance from each other. They may form a certain portion of a large central residential unit, with or without the addition of smaller, more or less distant, hamlets. Exactly the same remarks might be made concerning the fact that the average population per village is 509. Nor can any important deductions be drawn from the increase in the village population of Burma proper from 8,262,937 to 9,482,281 inhabitants, in a proportion so exactly similar to the general increase for the province, that the percentages of the whole remain practically unchanged. Such figures obscure the real growth of village population by suggesting that mere transfers of residential units from the category of villages to that of towns is necessarily accompanied by a change in their essential characteristics. In reality, village growth has been greater than the figures would imply. There is promise of better results from the figures for the number of houses within village limits, the expansion of their numbers at a considerably greater rate than the expansion of the village population being quite unconnected with administrative changes. The exact import of these diverging rates of change can however be considered better with reference to the average population per house rather than in the course of a treatment of the problems of village population. Practically, the statistics of the population of rural areas are interesting as measuring the nature and extent of administrative changes, but are valueless for the purpose of illustrating any phases of the life and habits of the people.

Village population—Burma proper.

——	1891.	1901.	1911.
Number of Villages ...	28,709	44,955	18,640
Number of Village houses	1,249,522	1,662,422	1,958,296
Average number of houses per Village.	44	37	105
Average population per Village.	233	184	509
Percentage of Village to total population.	82·5	90·6	90·7

HOUSES AND FAMILIES.

42. Definition of a House.—For the purpose of the census, the following definition of a house was framed as the most suitable for covering widely varying conditions :—

" House ordinarily means the separate residence of a family. The criterion to determine

whether a residence is separate is that it should be an enclosed building having a separate entrance from the common way. This definition will cover over ninety per cent. of the houses in the rural areas of the province. For the remaining exceptional cases, and for towns, as near an approximation as is possible to the above definition should be adopted. Alternative definitions of a house in towns are —

" (i) a building separately assessed to Municipal taxation ;
" (ii) a tenement."

" Where it is possible to readily identify the tenement as a residential unit (as in Rangoon Town), it would appear to be the more appropriate definition to adopt. The tenement should invariably be taken as the house in the case of coolie lines and lodging-houses. When servants' quarters are in separate blocks, each block should be treated as a separate house."

The intention in framing this definition was to avoid any rigid definition which would be difficult of application in unforeseen circumstances. Two elements were considered primary, those of " family life " and " separate entrance " ; but the definition was purposely left vague to allow of the application of these principles according to local conditions. Inspections tended to show that the definition led to over-minute distinctions. In Rangoon, tenement was suggested as the residential unit to adopt ; but in actual practice, it was interpreted to be the separate apartment, and indeed the two generally coincide.

43. Description of House.—It is necessary for a correct appreciation of the published figures to obtain a more real conception of the Burmese house as it exists than is given by the mere technical definition adopted for census purposes. The following extract from Chapter IX of the first Volume of Shway Yoe's work on " The Burman " gives the necessary information : —

* * * * *

" The Burman's dwelling, then, is always shaped more or less like a marquee tent, and never more than one storey high, to avoid the humiliating possibility of the feet of some one being over your head. But the whole house stands on posts, so that the floor is seven or eight feet from the ground. It consists often of only one room, usually, however, of two or more, and to the front of the house there is always a verandah, three or four feet lower than the general level of the house, and as often as not quite open to the street, or the garden, or whatever may be in front. The posts which form the main or central part of the house are usually six in number, and all have their names, such as Oo-yoo, Kyah-hngan, Nyoung-yan. Poor people use bamboo instead of wood, and make their walls of mats, woven of the same substance, split up. Occasionally, however, they rise to the dignity of common jungle timber. Richer people make use of the invaluable teak, or of *pyinkado,* a wood almost as durable, and equally expensive. White ants will attack neither of these. The walls of such houses are planked. The roof is sometimes composed of small flat tiles, but more commonly of thatch. In Rangoon and Moulmein, shingles, that is, small wooden slabs like slates, are being very generally introduced. In the better class of houses the floors are made of planking but poorer people have nothing better than a series of whole bamboos laid side by side on the cross-beams and tied down with rattans. This is not very pleasant to walk on, and has the further disadvantage of being anything but cleanly, for the spaces between the bamboos offer an irresistible temptation, to drop all litter and garbage on to the ground immediately underneath the house, and were it not for the pariah dogs the sanitary condition of the place would soon be very bad."

* * * * *

The principal changes introduced by lapse of time are the substitution of zinc as a material for roofing the better class of houses in the larger villages, and the gradual decay of the Burman prejudice against houses of two stories.

44. Number of Houses per Square Mile.—The figures in columns 6 and 9 of Subsidiary Table VII appended to this Chapter show a remarkable increase in the number of houses per square mile. Part of this increase, especially between the years 1891 and 1901, is due either to the closer enumeration of the latter year, or to the enumeration of portions of districts omitted in the former year. But this disturbance in the relative figures has but little weight in the comparison of the figures for 1901 and 1911. Considering Burma proper only, and thereby removing entirely the disturbing effects of the inclusion of new areas, the number of houses has increased from 10·9 to 13·2 per square mile. It is possible that this increase may be due partly to a different application of the term " house " when effecting the enumeration. The definition of the term " house " adopted in 1901 left the application entirely to the discretion of local officials. In the current census greater precision of the definition was attempted ; but the application of the definition to local circumstances was left for local officers to determine. The

effect of the change in the definition may have been a tendency towards over subdivision especially in towns ; but the same tendency existed, notably in Rangoon, at the census of 1901. From enquiries made in the course of inspection, I came to the conclusion that the application of the definition was much the same on both occasions, and that the possibilities of variation of application in rural areas was extremely small.

45. Average Population per House.—The best method of considering the causes which have produced the relatively greater increase of houses as compared with population can best be studied by a consideration of the average population per house. From the definition of house adopted and also from its method of application, it is clear that the average number of persons per house corresponds with the average size of the Burmese family. The figures in columns 2 to 5 of Subsidiary Table VII, showing generally a successive decline in the average population per house, are therefore of considerable significance. In the census report for 1901, Mr. Lowis drew attention to the diminution in the average number of residents per house in rural areas side by side with an increase in the average for the urban population. He, however, considered that the possibilities of variation introduced by differences of treatment rendered doubtful any far-reaching conclusions. The present figures show a diminution in the average population per house both in rural and urban areas. I agree with Mr. Lowis in thinking that the possibilities of variation in the application of the definition of a house in urban areas is so great that it would be unsafe to base important conclusions on the resulting averages. But in rural areas, it may be assumed that the possibilities of error are comparatively slight, and the successive diminution in the average from 5·34 in 1891 and 4·97 in 1901 to 4·84 in 1911 does really represent a gradual change in the constitution or the size of the Burmese family. The following extract from Chapter VII of Shway Yoe's work on " The Burman " written in 1882 indicates the extent to which the size of a family might be effected by the custom of married couples after marriage living in the house of the bride's parents :—

Average population per house.

—	1891.	1901.	1911.
Urban ...	5·22	5·87	5·29
Rural ...	5·34	4·97	4·84
Burma Proper	5·39	5·05	4·89

* * * * *

" After marriage the couple almost always live for two or three years in the house of the bride's parents, the son-in-law becoming one of the family and contributing to its support. Setting up a separate establishment, even in Rangoon, where the young husband is a clerk in an English office, is looked upon with disfavour as a piece of pride and ostentation. If the girl is an only daughter, she and her husband stay on till the old people die."

* * * * *

In the ensuing thirty years, economic changes have tended to modify this practice to a considerable extent. Obviously it refers more to a stationary state of society than to one in a condition of rapid transition. The dispersion of population caused by the rapid extension of cultivation has been one of the factors in modifying the custom described. The probabilities of the son-in-law having his occupation in the same village as the bride's parents is now much less than formerly, and on marriage it is quite customary for the couple to set up house independently for themselves. It is this dispersal of population with the modifications it has introduced into family life which is responsible for the decline in the average population per house in rural Burma. A widely dispersed population needs a greater number of houses for its accommodation and consequently a smaller number of persons per house ensues. In the Central Basin, an area contributing a large number of emigrants to the southern portion of the province, the average size of the family is diminished by their absence. Correspondingly the average size of the household in the Deltaic Plains is enhanced by the presence of numerous immigrants who have yet created households for themselves. But with the gradual occupation of the country more normal conditions are being attained and the number of inhabitants per house is slowly approximating to the size of the family. The figures for the specially administered territories would appear to show a contrary movement and to indicate an increase in the size of the average family. The value of the comparison is however but small. These territories contain a large proportion of estimated areas, and the methods of enumeration are not similar in some portions to those for the previous census. There are therefore numerous possibilities of variation in the actual methods of record rendering any conclusions as to the underlying facts of no value.

SUBSIDIARY TABLE I.—*Density, Water-Supply and Crops.*

District and Natural Division.	Mean density per square mile in 1911.	Percentage of total area.		Percentage to cultivable area of		Percentage of cultivated area which is irrigated.	Normal rainfall.	Percentage of gross cultivated area under			
		Cultivable.	Net cultivated.	(1) Net cultivated.	(2) Double cropped.			Rice.	Other cereals and pulses.	Oil seeds.	Other crops.
1	2	3	4	5	6	7	8	9	10	11	12
Province	53	...	...	...	...	...	93	...	...	...	...
Burma Proper	65	40	17	42	...	8	95	71	12	9	8
I.—Central Basin ...	*93*	*46*	*19*	*41*	*3*	*18*	*38*	*38*	*29*	*22*	*11*
Prome	130	32	18	56	...	16	50	86	3	...	11
Thayetmyo	52	27	6	22	...	6	40	51	6	27	16
Pakôkku	66	26	19	73	5	7	42	11	45	20	24
Minbu	80	30	11	37	3	27	37	36	28	27	9
Magwe	96	56	21	37	9	15	38	27	31	40	2
Mandalay	161	18	13	72	4	48	37	59	22	4	15
Shwebo	62	51	16	31	...	27	33	80	9	8	3
Sagaing	171	83	42	51	...	3	27	22	42	22	14
Lower Chindwin ...	91	52	23	44	...	3	34	24	45	25	6
Kyauksè	111	40	21	52	8	76	33	63	9	14	14
Meiktila	128	67	29	43	6	35	40	42	23	20	15
Yamèthin	72	60	14	23	...	38	44	73	9	14	4
Myingyan ...	142	73	32	44	6	4	35	10	43	39	8
II.—Deltaic Plains ..	*124*	*49*	*29*	*59*	...	...	*117*	*94*	...	...	*6*
Rangoon	10,476	14	14	100	...	...	104	43	...	...	57
Hanthawaddy ...	177	66	61	92	...	...	121	94	...	...	6
Tharrawaddy ...	151	59	27	46	...	...	71	94	2	...	4
Pegu	97	36	30	83	...	...	137	98	...	...	2
Bassein	107	56	24	43	...	...	117	93	...	...	7
Henzada	187	38	30	79	...	1	74	87	2	...	11
Myaungmya ...	127	69	24	43	...	...	100	96	...	...	4
Ma-ubin	185	69	40	58	...	...	93	88	1	...	11
Pyapôn	119	67	44	66	...	...	103	98	...	...	2
Thatôn	85	60	21	35	...	3	215	92	...	...	8
Toungoo	57	15	10	67	...	...	148	92	...	...	8
III.—Northern Hill Districts.	*15*	*22*	*1*	*6*	...	*24*	*67*	*91*	*1*	*1*	*7*
Bhamo	16	32	1	3	...	27	69	92	...	...	8
Myitkyina	8	32	...	1	...	33	80	76	...	...	24
Katha	28	20	4	20	...	35	61	97	...	1	2
Ruby Mines	18	14	...	4	...	29	58	71	...	...	29
Upper Chindwin ...	11	19	1	4	...	...	67	89	4	1	6
IV.—Coast Ranges ...	*38*	*39*	*6*	*14*	...	...	*174*	*88*	...	...	*12*
Akyab	103	70	21	30	...	...	172	93	..	...	7
Northern Arakan ...	15	86	...	...	...	...	118	75	...	...	25
Kyaukpyu	42	12	7	58	...	..	195	92	...	...	8
Sandoway	27	4	3	75	...	...	208	87	...	...	13
Salween	17	2	1	54	...	...	110	84	...	...	16
Amherst	52	43	11	26	...	1	207	90	...	...	10
Tavoy	25	28	4	14	...	...	227	74	...	...	26
Mergui	11	40	2	5	...	...	155	73	...	...	27
V.—Specially Administered Territories.	*28*	...	...	...	...	...	*82*	...	...	...	...
Northern Shan States	32	Not available.					68	Not available.			
Southern Shan States	22						81				
Pakôkku Hill Tracts	7						114				
Chin Hills	15						65				

SUBSIDIARY TABLE II.—*Distribution of the Population classified according to Density.*

Natural Division.	Townships with a population per square mile of																	
	Under 50.		50—100.		100—150.		150—300.		300—450.		450—600.		600—750.		750—1,000.		1,000 and over.	
	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.	Area.	Persons 000's omitted.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Province ...	168,460	3,847	27,657	1,919	18,404	2,245	17,690	3,580	674	232	85	44	72	50	5	4	92	524
Burma Proper ...	99,737	1,992	27,657	1,919	18,404	2,245	17,690	3,580	674	232	85	44	72	50	...	...	92	523
I. Central Basin ...	15,053	489	13,829	942	8,057	1,018	7,387	1,456	...	...	85	44	...	..	...	...	34	165
I. Deltaic Plains ..	7,825	284	7,742	538	9,467	1,128	9,079	1,857	674	232	...	...	...	..	...	...	28	293
III. Northern Hill Districts.	44,634	587	888	51	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV. Coast Ranges...	32,225	632	5,198	388	880	99	1,224	267	...	...	...	...	72	50	...	...	30	65
V. Specially Administered Territories.	68,723	1,496	...	...	...	...	...	...	...	...	...	...	...	...	5	4	...	...

SUBSIDIARY TABLE III.—*Distribution of the Population between Towns and Villages.*

Natural Division.	Average population per		Number per mille residing in		Number per mille of Urban population residing in Towns with a population of				Number per mille of Rural population residing in villages with a population of			
	Town.	Village.	Towns.	Villages.	20,000 and over.	10,000 to 20,000.	5,000 to 10,000	Under 5,000.	5,000 and over.	2,000 to 5,000.	500 to 2,000.	Under 500.
1	2	3	4	5	6	7	8	9	10	11	12	13
Province	17,904	292	93	907	586	190	204	20	10	67	534	389
Burma Proper ...	17,904	509	106	894	586	190	204	20	8	76	608	308
I. Central Basin...	15,240	517	93	907	486	264	225	25	11	85	571	333
II. Deltaic Plains	20,527	649	133	867	618	152	224	6	9	75	699	217
III. Northern Hill Districts.	7,521	221	45	955	...	368	513	119	12	34	331	623
IV. Coast Ranges...	23,687	490	95	905	848	105	...	47	...	72	584	344
V. Specially Administered Territories.	...	79	...	1,000	...	...	...	...	14	13	71	902

SUBSIDIARY TABLE IV.—*Number per mille of the total Population and of each main Religion who live in Towns.*

District and Natural Division.	Number per mille who live in Towns.					
	Total population.	Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.
1	2	3	4	5	6	7
Province	93	67	35	532	352	224
Burma Proper	106	75	76	543	354	236
I.—Central Basin	*93*	*71*	*112*	*588*	*544*	*668*
Prome	127	113	94	671	731	474
Thayetmyo	99	89	19	766	844	699
Pakôkku	49	46	53	319	521	613
Minbu	69	65	50	210	498	673
Magwe	64	57	729	332	576	392
Mandalay	464	405	999	772	835	984
Shwebo	30	21	874	457	171	408
Sagaing	35	30	653	383	346	186
Lower Chindwin	27	22	890	497	781	865
Kyauksè	42	37	1,000	395	60	225
Meiktila	25	16	411	309	277	808
Yamèthin	87	63	186	589	450	320
Myingyan	50	46	973	449	482	606
II.—Deltaic Plains	*138*	*80*	*282*	*587*	*681*	*189*
Rangoon	1,000	1,000	1,000	1,000	1,000	1,000
Hanthawaddy	46	20	93	165	226	145
Tharrawaddy	54	45	236	325	335	98
Pegu	40	30	104	106	215	28
Bassein	113	82	375	783	738	55
Henzada	100	88	492	578	578	96
Myaungmya	41	33	201	239	183	16
Ma-ubin	89	76	286	520	382	48
Pyapôn	97	78	401	285	502	43
Thatôn	49	41	41	143	194	53
Toungoo	76	63	38	249	526	46
III.—Northern Hill Districts ...	*45*	*30*	*26*	*425*	*441*	*254*
Bhamo	91	82	26	590	777	275
Myitkyina	66	38	9	476	406	231
Katha	...	...	...	...	...	...
Ruby Mines	110	93	87	563	434	682
Upper Chindwin	21	17	13	236	285	197
IV.—Coast Ranges	*95*	*65*	*81*	*577*	*139*	*288*
Akyab	72	43	12	590	87	840
Northern Arakan	...	...	...	...	...	...
Kyaukpyu	18	14	2	275	216	221
Sandoway	33	20	7	407	290	159
Salween	...	...	...	...	...	...
Amherst	157	87	501	635	440	448
Tavoy	185	176	211	615	734	149
Mergui	134	123	129	316	200	76
V.—Specially Administered Territories. ...	...	...	...	...	...	...
Northern Shan States ...	...	...	...	...	...	...
Southern Shan States ...	...	...	...	...	...	...
Pakôkku Hill Tracts	...	...	...	...	...	...
Chin Hills	...	...	...	...	...	...

SUBSIDIARY TABLE V.—*Towns classified by Population.*

Town.			Percentage of total Urban Population.	Number of Females per 1,000 Males.	Increase per cent. in the Population of Towns as classed at previous Census.				Increase per cent. in Urban Population of each Class from 1872 to 1911.	
Serial No.	Class.	No. of Towns in 1911.			1901 to 1911.	1891 to 1901.	1881 to 1891.	1872 to 1881.	(*a*) In Towns as classed in 1872.	(*b*) In the total of each class in 1911 as compared with the corresponding total in 1872. (Lower Burma only.)
1(*a*)	1(*b*)	1(*c*)	2	3	4	5	6	7	8	9
I	100,000 and over	2	38	554	3	16	176	...	...	...
II	50,000—100,000	1	5	639	—1	5	5	36	197	— 42
III	20,000—50,000	6	15	648	7	—9	8	12	24	+ 16
IV	10,000—20,000	16	19	718	3	8	17	25	46	+ 31
V	5,000—10,000	32	21	824	2	17	27	—3	28	+ 88
VI	Under 5,000 ...	6	2	782	86	75	79	...	68	...

SUBSIDIARY TABLE VI.—*Cities.*

City.	Population in 1911.	Number of Persons per square mile.	Number of Females to 1,000 Males.	Proportion of foreign born per mille.	Percentage of Variation.				
					1901 to 1911.	1891 to 1901.	1881 to 1891.	1872 to 1881.	Total 1872 to 1911.
1	2	3	4	5	6	7	8	9	10
Rangoon	293,316	10,476	409	583	20	35	36	36	197
Mandalay	138,299	5,532	984	93	—25	—3	...	...	...

SUBSIDIARY TABLE VII.—*Persons per House and Houses per Square Mile.*

District and Natural Division.	Average Number of Persons per House.				Average Number of Houses per square mile.			
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.
1	2	3	4	5	6	7	8	9
Province	4·91	5·01	5·66	...	10·7	8·8	6·8	...
Burma Proper	4·89	5·05	5·39	...	13·2	10·9	8·3	...
I. Central Basin	*4·61*	*4·77*	*5·25*	...	*20·1*	*17·4*	*12·1*	...
Prome	4·71	4·89	4·85	5·13	27·6	25·6	25·7	22·3
Thayetmyo	4·44	4·82	5·11	4·97	11·8	10·5	15·7	16·2
Pakôkku	4·84	4·89	5·42	...	13·6	11·7	9·1	...
Minbu	4·75	4·67	5·03	...	16·8	15·2	13·9	...
Magwe	5·19	5·39	6·27	...	18·4	15·7	6·4	...
Mandalay	4·42	4·73	4·86	...	36·5	36·6	36·7	...
Shwebo	4·41	4·26	4·57	..	14·2	11·9	11·1	...
Sagaing	4·41	4·77	5·25	...	38·8	31·8	9·5	...
Lower Chindwin... ...	4·48	4·53	5·58	...	20·3	17·5	12·2	...
Kyaukse	5·09	3·91	4·11	...	21·8	28·4	29·3	...
Meiktila	4·92	5·16	5·45	...	26·1	22·4	12·6	...
Yamèthin	3·96	4·96	5·42	...	18·2	11·5	4·4	...
Myingyan	4·68	4·88	6·24	...	30·3	23·3	15·1	...
II. Deltaic Plains	*5·14*	*5·39*	*5·52*	*5·66*	*24·2*	*19·9*	*15·3*	*11·6*
Rangoon	5·91	5·99	6·36	6·49	1774·1	2063·6	1288·5	1036·8
Hanthawaddy	5·06	5·32	5·27	5·93	34·9	30·1	26·1	17·8
Tharrawaddy	4·92	5·26	5·37	5·58	30·8	26·4	32·1	26·1
Pegu	5·16	5·43	6·04	...	18·9	14·6	20·5	...
Bassein	5·34	5·67	5·57	5·58	20·1	16·7	12·1	10·8
Henzada	5·09	5·21	5·42	5·73	36·8	32·5	36·1	30·2
Myaungmya	5·14	5·41	}		24·6	18·9	}	
Ma-ubin	5·12	} 5·61	} 5·84	5·75	36·2	} 24·9	} 14·1	10·1
Pyapôn	5·07	}	}		23·5	}	}	
Thatôn	5·45	5·55	5·11	5·37	15·6	12·2	7·2	6·1
Toungoo	4·58	4·65	4·72	5·65	12·4	9·7	5·4	4·7
III. Northern Hill Districts ...	*4·88*	*4·91*	*5·31*	...	*2·9*	*2·5*	*1·3*	...
Bhamo	4·87	4·59	5·31	...	3·2	4·2	1·1	...
Myitkyina	4·96	4·86	...	...	1·6	1·3	} 2·5	...
Katha	4·82	4·91	5·16	...	5·9	5·1	}	
Ruby Mines	5·13	5·17	6·56	...	3·6	3·1	1·9	...
Upper Chindwin... ...	4·81	4·98	5·21	...	2·3	1·6	·9	...
IV. Coast Ranges	*5·03*	*5·06*	*5·23*	*5·46*	*7·5*	*5·9*	*4·9*	*3·9*
Akyab	4·89	4·94	5·02	5·28	21·1	18·9	14·9	12·6
Northern Arakan ...	4·08	4·32	3·82	4·31	3·6	·9	3·8	3·4
Kyaukpyu	4·43	4·47	4·78	5·21	9·5	8·6	10·9	6·9
Sandoway	5·19	5·17	5·52	5·51	5·2	4·6	3·8	3·3
Salween	4·33	4·27	4·65	4·71	4·1	3·3	1·5	1·4
Amherst	5·71	5·84	5·79	5·82	9·1	7·3	4·7	3·9
Tavoy	4·81	4·86	4·97	5·51	5·2	4·3	2·7	2·3
Mergui	5·43	5·53	5·46	5·57	2·1	1·6	1·7	1·3
V. Specially Administered Territories.	*5·01*	*4·73*	...	...	*4·5*	*3·8*	...	...
Northern Shan States ...	5·45	5·13	...	...	5·9	4·3	...	...
Southern Shan States ...	4·86	4·72	...	..	4·0	3·9	...	...
Pakôkku Hill Tracts ...	4·81	4·81	..	...	1·5	1·2	...	...
Chin Hills	4·68	3·68	..	...	3·2	2·9	...	...

CHAPTER II.

Movement of Population.

46. Statistical References.—The term "Movement of the Population" at the head of this chapter is not used in its literal sense of migration. This aspect will be considered subsequently, in Chapter III, in which the statistics of birthplace will be utilised to indicate the extent of migration from place to place. The present chapter will be devoted to movements with respect to time, or to variations in the population from time to time, rather than to physical movements from place to place. In the first chapter the distribution of the population as it stood at the time the census was taken was considered. The variations that have taken place since the first census in 1872 and more particularly the variations since the last census in 1901 are now to be the subject of treatment. From an administrative point of view this chapter is the most important in the report. The changes of population from time to time not only allow the effect of past administration on the people to be estimated, but are of the greatest utility in suggesting the degree of correspondence between existing administration and the ever varying population under its control. A list of the statistical materials essential for a complete study of the variations would be lengthy, including the majority of the tables of the current and the four preceding enumerations. Imperial Tables II and IV and Provincial Table I in the statistical volume of this report and the five subsidiary tables specially prepared to illustrate different aspects of the variation of the population, however, afford the principal material to be utilised. The five tables show respectively :—

Subsidiary Table I.—Variation in relation to density since 1872.
Subsidiary Table II.—Variation in natural population.
Subsidiary Table III.—Comparison with vital statistics.
Subsidiary Table IV(a).—Variation by townships classified according to density. Actual variation.
Subsidiary Table IV(b).—Variation by townships classified according to density. Proportional variation.

VARIATION PRIOR TO 1901.

47. Population of Burma prior to the Census Era.—But little reliance can be placed on the estimates of the population of Burma prior to the cession of Arakan and Tenasserim in 1826. Father Sangermano at the end of the eighteenth century estimated the population of the Burmese empire at about two millions. Colonel Symes at about the same time thought that it amounted to seventeen millions, and Cox a little later estimated it at about eight millions. It was impossible at that time to make even an approximate guess at the population of a recently extended and loosely amalgamated empire, seething with rebellion and subject to almost continuous warfare. What is certain is that the populations of Arakan, Tenasserim and Pegu were at one time much greater than when they came under British control by two successive annexations in 1826 and 1852. The descriptions of the visits of early European travellers show that the coasts of Arakan and Tenasserim were exceedingly populous, but when they were ceded to the British after the first Anglo-Burmese war they were found to be almost depopulated. In 1829, a census taken in Arakan showed that the population was 121,288. Three years later, in 1832, it has risen to 195,107. This remarkable increase of 60·86 per cent. was principally due to the return from Chittagong of the Arakanese, who had fled from Arakan during the occupation of that kingdom by the Burmese from 1784 to 1826. Similarly along the sea-coast of Tenasserim there were numbers of ruined towns laid waste during the wars between the Burmese and the Talaings, and subsequently between the Burmese and the Siamese. So poor and so sparsely populated was Tenasserim on its first occupation by the British, that the question of restoring it to the king of Burma was

seriously debated. The area corresponding roughly with that of the three districts of Amherst, Tavoy and Mergui was then found to contain only 70,000 inhabitants. The history of Burmese warfare is full of incidents which indicate that it was carried almost to the point of extermination. It is related that about the end of the sixteenth century, one of the Talaing kings on a single occasion burnt 10,000 people to death, and it is not surprising that at the end of his reign the country was depopulated. But the wars waged from the time of the rise of Alaungpaya in 1754 till the British invasion of 1824 were responsible for the depopulation existing at the latter date. From Manipur and Mogaung in the north, to Mergui and Siam in the south, from the Shan States in the east to Arakan in the west, warfare was incessant for this period of about seventy years. Depopulation was caused not only by the numbers killed in actual warfare, though prisoners and conquered garrisons were invariably put to the sword. In retaliation for defeats in warfare whole tracts of country were devastated, neither age nor sex being spared. Large populations were either compulsorily transferred to some remote region in the conqueror's territory, or driven to take refuge in other countries. With the energies of the country so dissipated by warfare, and with no possibility of peace and security, there could be neither industry nor agriculture sufficiently extensive to support a growing population. It is probable that had the Burmese been granted sufficient time to consolidate their conquests, an era of expanding population would have commenced. The British appeared at the moment of greatest exhaustion produced by the extension of the Burmese Empire. Under the conditions of warfare prevailing, depopulation was a preliminary essential to territorial expansion. The expansion having been effected, if it had been confined to the natural frontiers of the province, the era of internal warfare would probably have been succeeded by an era of peace and internal development. It is a legitimate assumption that the population of Burma was at a lower level during the first half of the nineteenth century than it had been for centuries previously.

Year.	Arakan.	Tenasserim.	Pegu.
1826 ..	...	70,000	...
1829 ...	121,288	...	...
1832 ...	195,107	...	...
1835 ..	...	84,917	...
1842 ..	246,766	...	...
1845 ..	..	127,455	...
1852 ...	352,348	191,476	...
1855 ...	...	...	631,640
1858 ...	...	...	890,974
1862 ...	381,985	394,264	1,244,385

The marginal statement shows the movement of population from 1826, the year of the annexation of Arakan and Tenasserim, to 1852 when Pegu was added to British territory, and on to 1862 when the three territories were formed into the province of British Burma. The population of Arakan and Tenasserim, considerably less than 200,000 when taken over by the British, had risen to about 540,000 in 1852. In that year the addition of Martaban and Shwegyin to Tenasserim and the annexation of the province of Pegu brought the total up to nearly 1,200,000. In 1862 it had risen to 2,020,634. This advance was due very largely to the introduction of peace and settled government into Pegu, where previously warfare and repression had reigned, and to the return of exiles back to their homes in the settled area; but improved methods of enumeration must have also been responsible for a portion of such a remarkable increase. In 1863 the population of the now unified province was 2,092,331. A period of almost uniform expansion brought it to a total of 2,747,148 in 1872 when the first census was taken.

British Burma.	
Year.	Population.
1862 ...	2,020,634
1863 ...	2,092,331
1872 ...	2,747,148

48. Difficulties in Estimating True Variations in Population since 1872.—The real increase in the population may be obscured by variations due to the inclusion of fresh areas and to improvements in the machinery of enumeration. It is possible to gauge the extent of the first of these disturbing influences accurately, but the second can be only estimated from a knowledge of the conditions under which the various enumerations were taken and the inherent probability or improbability of the resultant figures. In Burma there has been a progressive extension of census limits since 1881, rendering a determination of the increases due to this cause imperative before the true increases of the population can be ascertained. In 1872 and in 1881 the census area coincided with the province of British Burma. In 1891 it was extended to the greater portion of Upper Burma, but the Specially Administered Territories, and portions of the Upper Chindwin, Katha, Myitkyina, Bhamo and the Ruby Mines Districts, were

either excluded from the operations entirely or from statistical treatment in the report. In 1901, the Specially Administered Territories were included and the census or estimate was taken over the whole area of the province except:—

(i) The unadministered portion of the Northern Arakan District.

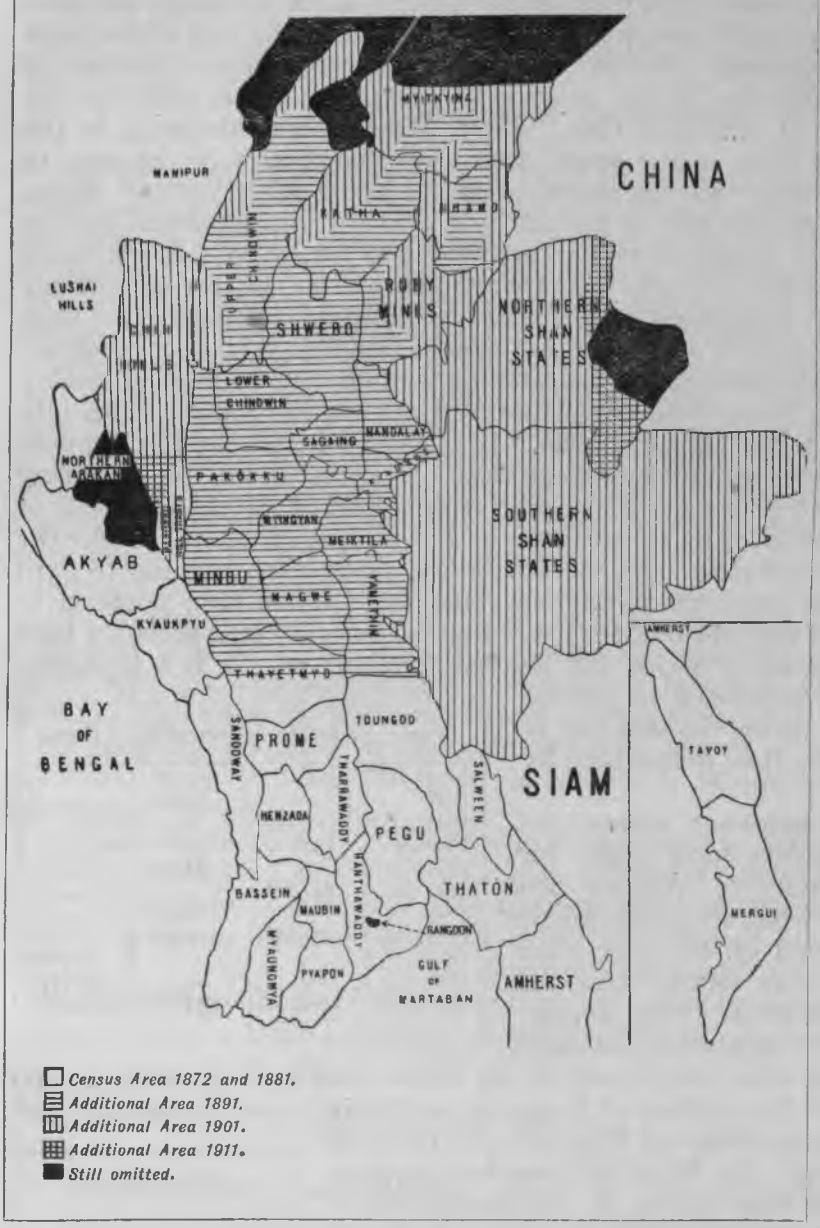
(ii) The unadministered portion of the Pakôkku Hill Tracts.

(iii) The unadministered areas to the north of the Myitkyina and the Upper Chindwin Districts.

(iv) Kokang and East and West Manglun on the eastern borders of the Northern Shan States.

Of these areas, excluded in 1901, the unadministered area of the Pakôkku Hill Tracts, Kokang and West Manglun have now been included within the census limits to the extent of having a close estimate made of their populations. There still remains no record or estimate whatever in the following areas which are entirely beyond census limits:—

MAP SHOWING ADVANCE OF CENSUS LIMITS SINCE 1872.



(i) The unadministered area of Northern Arakan District.

(ii) The unadministered areas to the north of the Myitkyina and Upper Chindwin Districts.

(iii) East Manglun in the Northern Shan States.

In estimating the variation of population during the census era there are therefore four distinct census areas over which the population must be examined.

Statement showing populations of five Census years over four different Census areas.

Census area of	Population.				
	1911.	1901.	1891.	1881.	1872.
1911 ...	12,115,217	...	...	...	...
1901 ...	12,061,928	10,490,624	...	...	...
1891 ...	10,418,531	9,118,734	7,722,053	...	...
1872—1881	6,460,687	5,645,673	4,658,627	3,736,771	2,747,148

To compare the population of Burma as recorded in the census of 1911 with that recorded in 1872, 1881, 1891 or even in 1901 is highly misleading, unless allowance is made for the differences in the areas over which the census was taken. The marginal statement exhibits in the most concise form the populations of the five census years over the four different census areas. In the census area for 1891, to avoid complications, the small

portion of the Shan States over which a modified enumeration was effected has been excluded. The horizontal rows of the statement show the populations at each census year for any particular census area ; the vertical columns show the populations for any particular year in the various census areas. Horizontal differences will show the actual increases over the separate census areas with the disturbing element of increased area eliminated. Vertical differences for the year of transition will give the increase due to the extended area. By this method the influence of the extensions of census limits or the population can be isolated and excluded.

Considering first the increases due to such additional areas, it is seen that the population of that portion of Upper Burma which was first brought under census enumeration in 1891 amounted to 3,063,426. In 1901 the extension of census limits in the Northern Hills Districts and the inclusion of the greater portion of the Specially Administered Territories added 1,371,890 persons to the total population. The minor extensions in the Pakôkku Hill Tracts, Kokang and West Manglun made at the census of 1911 have caused an increase of 53,289 only. Excluding these increases the marginal statement gives the variations due to all other causes over the three census areas of 1872-1881, 1891 and 1901. Roughly speaking the three census areas can be termed British Burma (that of 1872-1881); Burma Proper, less excluded areas (that of 1891); and the Whole Province, less excluded areas (that of 1901). These areas have no reference to the life of the province as a whole at the present time. They were the limits over which a census enumeration was possible for the various years in which it was taken. Yet, unmeaning as they have now become, they afford the only means of calculating the variation of the population and of isolating the disturbing influence of additional areas on such variation. Moreover, it is only by an examination of the figures for these areas, now artificial and divorced from the administrative and natural divisions of the province, yet important as being identical areas throughout the series of census enumerations which have been effected, that the magnitude of the other disturbing factor of progressive efficiency of enumeration can be estimated.

Increase due to extensions of Census limits.

Year.	Population of extended area.
1891 ...	3,063,426
1901 ...	1,371,890
1911 ...	53,289

Actual increases over different Census areas omitting those due to extension of area.

Census area of	1901-1911.	1891-1901.	1881-1891.	1872-1881.
1901 ..	1,571,304	...	...	...
1891 ...	1,299,797	1,396,681	...	...
1872-1881	815,014	987,046	921,856	989,623

49. Variation in Population since 1872.—To obtain a review of the population since the first census was taken in 1872 it is necessary to consider only the area which constituted British Burma at that period. It is not coincident with the area now known as Lower Burma, the district of Thayetmyo (modified in area) having been transferred to the upper portion of the province. Considering the percentages only, it would appear highly probable that the unduly high percentages of the earlier periods and their gradual diminution were largely due to progressive efficiency of enumeration. A consideration of the actual increases of population tends to modify somewhat the impression produced by a study of the percentages. There is a remarkable uniformity in the additions to the population decade by decade, the extreme range being from 815,014 to 989,623. During the period from 1872 to 1901, large tracts of Lower Burma were virgin country in a stage of rapid colonisation, and there is nothing inherently improbable in the actual increases for that period. The amount of disturbance caused by under-enumeration in 1872 and 1881 is exceedingly difficult to estimate. If the area were dependent upon its natural increase of population the abnormal rates of increase, the progressive decline in its percentages of increase, and the stationary and even receding actual increases would be open to grave suspicion. But the factor of immigration both from Upper Burma and from outside the province has

Variation in population since 1872.

Year.	Population.	Increase.	
		Actual.	Per cent.
1872	2,747,148	...	...
1881	2,736,771	989,623	36
1891	4,658,627	921,856	25
1901	5,645,673	987,046	21
1911	6,460,687	815,014	14·5
1872-1911 ...		3,713,539	135

played a most important part in its development. As will be subsequently ascertained there are errors of under-enumeration for the whole province for the years 1891 and 1901 which from the rough tests which can be applied amount to about 2·8 and 1 per cent. respectively. The former was in a great measure due to the extension of census enumeration to the recently annexed and barely pacified area of Upper Burma. It is legitimate to presume that the percentage of error for British Burma in 1881 was not greater than this. In 1872 the degree of under-enumeration was probably much greater.

50. Variation in Population since 1891.—The variation in the population since 1872 can be studied for a limited portion of the province only. But from 1891 it is possible to consider its variation over an area nearly coincident with Burma proper. With the exception of the remote and hilly portions of the Northern Hill Districts the census area of 1891 was extended to the whole of Upper Burma. It has been a matter of some difficulty to obtain the populations for 1901 and 1911 for this area, owing to numerous administrative changes since the census of 1891 was taken. Moreover in 1901 the word "excluded" was used to denote not only those areas entirely excluded from the operations, but also areas excluded from regular operations but where an estimate of the population was effected and the figures included in the census statistics. The first marginal statement has been prepared to show the populations for 1901 and 1911 over every portion of Burma proper for which statistics were recorded in 1891. As there is a possibility of error due to the uncertainty of the boundaries of this area a companion statement prepared for Burma proper, excluding the doubtful Northern Hill Districts, has been prepared. The latter statement though not so comprehensive is much more accurate. In his memorandum on the Age Tables and Rules of Mortality of the Indian Census of 1901 Mr. Hardy, F.I.A., F.S.S., found the Northern Hill Districts most disturbing factors in his calculations. He reports to the following effect:—

Population of Census area 1891.			
Year.	Population.	Increase.	
		Actual.	Per cent.
1891	7,722,053	...	...
1901	9,118,734	1,396,681	18·0
1911	10,418,531	1,299,797	14·2
1891—1911 ...		2,696,478	34·9

Population of Burma Proper excluding Northern Hill Districts.			
Year.	Population.	Increase.	
		Actual.	Per cent.
1891	7,390,065	...	...
1901	8,687,493	1,297,428	17·5
1911	9,947,435	1,259,942	14·5
1891—1911 ...		2,557,370	34·6

"In Burma, as already stated, the Buddhist population alone was dealt with in order to eliminate any serious difficulties as to immigration. Here the recorded increase since 1891 amounts to 19·4 per cent., or about 17·9 per mille per annum, and in the previous decade the rate of increase was still higher. It appears to me quite certain that this recorded rate is much higher than the true figures, and that improved enumeration must be answerable for some considerable share of this large increase. The progression of the graduated age figures would indeed indicate that if the natural rate of increase in the population is 18 per mille per annum, then the mortality rates from about 10 to 25 must be nearly zero. Mr. Lowis, in his report on the Burma census (Volume I, pages 19-24), has discussed the observed increase of population from various points of view, and arrives at the conclusion that if certain districts are excluded where the recorded increase is quite abnormal, the average increase for Upper Burma for the past ten years would be 11·2 per cent. equivalent to 10·7 per mille per annum. Part of the abnormal increase in the districts referred to may be due to emigration from the remaining districts, and, having regard to the fact that Burma has been free from any scarcity, and that the relatively large numbers of the population returned at the older ages indicates much lower rates of mortality than those prevailing in India generally, it will not be an extreme assumption that the 'natural' rate of increase of the population is about 12 per mille per annum about equal to the rate in non-famine periods in Madras and Bombay."

It was unfortunate that in this actuarial examination, the non-coincidence of the census areas of the five Northern Hill Districts in 1901 and 1911 was not appreciated. The extremely large increase of 19·4 per cent. was due partly to the fact that in 1891 portions only of these districts were enumerated, whereas in 1901 the census limits in these districts were widely extended. If the actuarial calculations had been based on the figures for the remaining districts of the province much more

accurate results might have been obtained for the lesser area. Even including immigrants the increase for these districts was 17·5 per cent. only, against 19·4 per cent. for Buddhists when the Northern Hill Districts were included. Mr. Hardy accepts the figures of the 1891 census for the Buddhists in the remaining districts of Burma as being sufficiently reliable to base a natural increase of population of about 12 per mille per annum or 12·7 per cent. for the decade. This rate of increase is confirmed by an examination of the difference in the populations of 1901 and 1911. It is possible from this figure to test the reliability of the percentage of increase of 17·5 shown by the census figures. The net gain by immigration for the decade as calculated from the birthplace statistics was 149,245 or approximately 2 per cent. of the population. The loss by emigration was imperceptible. Assuming that the net gain from migration amounted to 2 per cent. then the two factors of natural increase and migration accounted for 12·7 + 2 = 14·7 per cent. of the increase. There remains a percentage of 17·5 —14·7 or 2·8 per cent. which can only be accounted for by the increased efficiency of the enumeration in 1901. The enumeration in Upper Burma in 1891 was effected under great difficulties very shortly after that portion of the province had been annexed, and immediately after complete pacification had been effected. The subordinate officials had not yet grown accustomed to the methods of the new regimé, and it is probable that a large portion of the under-enumeration indicated was due to so large an extension of census limits over an area where both the population and the supervising and enumerating staff possessed no previous experience of the methods and objects of the census enumeration.

Net gain by immigration 1891-1901.

Year.	Immigrants.
1901	475,484
1891	326,239
Increase	149,245

PROVINCIAL VARIATION, 1901-1911.

51. Conditions of Decade, 1901-1911.—Before commencing a detailed examination of the statistics concerning the increase of the population of the last decade a brief review of the conditions likely to influence the growth of population which have prevailed in the province is necessary. In an agricultural country the most important factors are the general climatic conditions and their influence on the crops, the price of the resultant produce, and the amount of waste land available for cultivation, or made available for cultivation by means of irrigation or improvements to communications. In Burma climatic conditions are of less importance than in India generally. The pressure of population on the means of subsistence is so slight, and the extent of culturable area available is so great, that cultivation has not spread into tracts where a slight diminution in the rainfall means scarcity, or even famine. A perusal of the season and crop reports suggests that floods, or excess of water, are as frequent a cause of crop failure as the opposite extreme of scarcity of water. Generally speaking climatic conditions were favourable. In the ten years of the decade there were only two years, 1902 and 1905, in which the crops in Lower Burma were reported as being markedly below normal. In Upper Burma the crops for the year 1901, 1902 and 1907 can also be classified as much below normal. But the effects of such years cannot be compared with the effects which such shortages would have in the more densely populated Indian provinces. A small portion of the total crop in such years would, if necessary, be deflected from the normal export from the province to the areas of shortage. It is extremely doubtful whether any appreciable effect on the increase in the population resulted from the partial failure of crops in the years mentioned. The scarcity in Upper Burma in 1907 affords the best means of ascertaining what effect, if any, is produced on the population of Burma in years of scarcity. It is described as being the worst season since 1896. In Upper Burma the rains were poor and untimely; the rise of the Irrawaddy and Chindwin rivers was abnormally small, and irrigation works gave short supplies of water in many cases. The agricultural season throughout the dry zone, except in Magwe, was a wretched one, in some districts worse even than in 1896. The area on which crops failed to mature was nearly double that of 1906, and where unirrigated crops did mature the outturns were generally poor. Yet the demands for food supplies from the areas affected was met almost wholly from the irrigated areas in their vicinity, supplies from Lower Burma not being required to supply the deficiency. As to the effect of the scarcity on the health of the population, the Sanitary Commissioner of the province records that a certain amount of scarcity was reported at the end of 1907 in Sagaing, Myingyan, Meiktila and the northern subdivision of

Yamèthin District and that some movement of the populations of these districts towards Lower Burma and the irrigated area in the Kyauksè District was observed; but that no excessive sickness or mortality appears to have resulted from the scarcity. Returning to the same subject in the Sanitary Report for the year 1908 he records that the scarcity reported at the end of 1907 in the Meiktila and Sagaing Divisions of Upper Burma was of no long duration and produced no serious degree of sickness or mortality nor decrease in the birth-rate among the population. An examination of the vital statistics of the districts affected fails to indicate that any portion of the mortality recorded in 1907 and 1908 was due to any shortage in the food supply. It can be generally concluded from this consideration of the most serious scarcity in the decade, that adverse changes in climatic conditions do not have an appreciable effect on the increase of the sparsely distributed population of the province. They may affect the general distribution, increasing the population of one district at the expense of another, by migration. But on the population as a whole, they do not fall with such oppressive severity that they actively influence the birth or death rates of the localities in which they occur.

Of far greater influence than the variation from year to year in the climatic conditions of the province is the amount of culturable area available for extensions of cultivation. The occupied portion of Burma proper has increased from 13,868,497 acres in 1901 to 17,169,806 acres in 1911, or nearly 25 per cent. It has expanded at a greater rate than the population it supports. According to the Season and Crop Report of Burma for 1911 there still remains an area of 23,833,000 acres of culturable waste a considerably greater area than that already occupied, available for future expansion. This figure rather over-estimates future possibilities. The Northern Arakan District shows 2,881,570 acres of culturable waste, but it is highly probable that this area is largely in excess of the true figures, and that similar though not such extensive over-estimation exists in other districts. The term culturable is an elastic one and liable to different interpretations. Much of the area included is only culturable at the cost of expensive irrigation or embanking schemes. But making all necessary deductions, there remain areas available for future development and for the maintenance of increased populations, in excess of the area already taken up. Such areas are generally either remote from existing means of communication or require a large amount of labour to bring them under cultivation. Most of the accessable areas, and those culturable with but a moderate amount of preliminary preparation, have already been occupied; and those that remain will require a progressively increasing amount of preparation, either on a large scale in the provision of means of access, irrigation or embankments, or on the small scale of the more arduous cultivation of individual holdings.

This surplus of unoccupied land existing in every portion of the province, save in the immediate vicinity of Rangoon, is the safeguard of the province against an extreme congestion of population, and renders its inhabitants practically immune from the worst effects of climatic variations. It is also responsible for a large portion of the increase in the population in excess of the natural increase of births over deaths. Though a large number of the immigrant races do not settle directly on such waste areas, they arrive to supply a deficiency of labour in the commercial and industrial occupations caused by the tendency of the indigenous population to confine itself to a great extent to agricultural extension. Prices have been generally favourable to the cultivators during the period elapsing since the last census. In 1901 the price of paddy in Rangoon per 100 baskets of 9 gallons capacity oscillated at about Rs. 100. There were many fluctuations during the decade but the price never went for more than a short period below this figure. There was always a tendency to rise and the centre round which the fluctuations in price ranged in 1911 was Rs. 130 per 100 baskets. This marked increase in price in its main staple crop was favourable to a large increase in population in an agricultural country like Burma, and naturally tended towards an increase in the rural rather than in the urban portions of the population.

Total area irrigated.	
1901 ...	832,537
1902 ...	755,585
1903 ...	649,062
1904 ...	686,588
1905 ...	797,342
1906 ...	793,739
1907 ...	733,817
1908 ...	848,620
1909 ...	985,187
1910 ...	1,057,076
1911 ...	999,272
Increase in decade.	166,735

The statistics for irrigation would appear to show that it had but the slightest effect on the increase of the population for the decade. This is due to the facts that the figures for the earlier years contain a high proportion of area irrigated from small local systems, and that the areas given are unreliable. Thus in 1901 an area of 192,000 acres in the Magwe District is given as being irrigated. In the

following year it dropped to 65,349 acres and a report was made to the effect that the figures previously given were unreliable. In the early part of the decade the irrigation systems of Burma were almost entirely dependent on the rainfall. In the Season and Crop Report of Burma for 1902 the extent to which they were dependent on rain, and not on snow, was emphasised, and it was pointed out that if the rains were short or untimely on the hills as well as in the plains, irrigation could not supply the place of a good rainfall. It was also stated that both the quality and the quantity of irrigation was in many districts purely a matter of conjecture. Despite the small apparent increase in the figures, substantial advances have been made. The areas given for the earlier years are highly conjectural, those for the later years contain only those areas where the irrigation was fully adequate to support the crop to maturity. In the Season and Crop Report for 1911 it is stated that in a year of good rainfall an area of 1,426,236 acres would be irrigated. So far as it affected the variation of the population, the increase of irrigation, or rather its gradual transformation from local and detached systems into large connected schemes, is concerned with the natural division of the province termed the Central Basin. When the variation in the population of this area is being discussed the influence of irrigation on the increases recorded will be estimated.

The general industrial progress of the country is almost inseparably bound up with its agricultural development. Most of its industries are concerned with the disposal of its agricultural produce. Of the independent industries, the oil-fields and oil refineries have had considerable effect on the population of the Magwe and the Hanthawaddy Districts. Developments in other districts are too small or too recent to have had produced any appreciable effect. The same may be said about the rubber and mining industries. At the time the census was taken, they were in a state of great activity, but they were still in a rudimentary stage and their effect on the population had not begun to reveal itself. There is a general feeling prevalent that the general industrial progress of the province has not been so great as the opportunities it afforded have permitted. Much capital urgently needed for expansion in legitimate directions has been either dissipated in speculative commercial enterprises, or locked up in speculative purchases of land. It is probable that every country in a stage of rapid transition must necessarily pass through such an era of fictitious enterprise. The past ten years has proved such an era for Burma. Amid much substantial industrial progress, there is to be recorded a high proportion of enterprises whose main result has been to retard rather than advance the industrial interests of the province. The effect on the population has been felt in its influence on the number of immigrants, slackening the rate of increase from this constituent of the total resultant. Its effect on the indigenous population has been scarcely felt.

52. **General Comparison of Population for 1901 and 1911.**—Apart from the extension in the census limits, the most important elements of disturbance in the comparison of the census figures for 1901 and 1911 are the areas in which the population was estimated in 1901 and enumerated in 1911. There were seven such areas, two of them, in the Upper Chindwin and the Bhamo Districts, being due to the breakdown of the arrangements for enumeration in 1901, at the last moment. The total population for these areas shows an increase of 89,211 or 42 per cent., a very large proportion of which must be due to the greater accuracy of the enumeration over the estimate previously made. There is no means of ascertaining the exact amount of error and any correction made would be of a mechanical nature. If a comparison of any value is to be made between the population of the province for the years 1901 and 1911 it is necessary that any of these areas of sufficient magnitude to disturb the percentage of increase must be excluded. The figures for the Upper Chindwin and Bhamo districts are too insignificant to have any appreciable weight. The effect of the disturbance of Myitkyina District is greater, but it is not of sufficient magnitude to justify the exclusion of a portion of one of the regular districts of the province. Combining together those areas to be excluded because they have appeared for the first time in the census of 1911, and those to be excluded because of the difference

Population of the areas which were estimated in 1901.

	1911.	1901.
Karenni	63,628	45,795
Kachin Districts, North Hsenwi.	75,421	45,127
Pakôkku Hill Tracts	17,128	13,116
Chin Hills ...	119,556	87,189
Upper Chindwin ...	223	188
Bhamo	2,115	1,500
Myitkyina	23,319	19,264
Total ...	301,390	212,179

in the system of enumerations adopted in 1901 and 1911, they can be classified as follows :—

Territory.	Areas excluded from comparison.	Population.	
		1911.	1901.
Northern Shan States	Kokang ...	25,604	...
	West Manglün ...	18,562	...
	Kachin Districts of North Hsenwi.	75,421	45,127
Southern Shan States ..	Karenni ...	63,628	45,795
Pakôkku Hill Tracts	Administered ..	17,128	13,116
	Unadministered	9,123	...
Chin Hills	The whole ...	119,556	87,189
	Total ...	329,022	191,227

If these figures be excluded from the total population of the province as given by the enumerations of 1901 and 1911, the amount of variation is 1,486,798 or 14·4 per cent. This is as true a presentation as the census records will permit after all known disturbing influences have been excluded. There still remains an analysis of this increase to determine to what extent it is due to the natural increase of births over deaths, and how far it is due to the effect of migration. The following methods are available for estimating the respective portions of this increase of 1,486,798 due to the natural increase of births over deaths and to the gain by migration :—

Population with incomparable areas excluded.	
Year.	Population.
1901 ...	10,299,397
1911 ...	11,786,195
Increase ...	1,486,798
Per cent. ...	14·43

(i) the statistics of births and deaths recorded for the province ;

(ii) the statistics for the Buddhist population, which, being free to a great extent from the disturbing factor of migration beyond the limits of the province, may be expected to give an increase closely approximating to the natural increase of births over deaths ;

(iii) Mr. Hardy's estimate of a natural increase of 12 per mille per annum ;

(iv) the statistics for birthplace given in Imperial Table XI from which an estimate of the extent of migration can be compiled.

53. Vital Statistics.—The most obvious method of obtaining reliable figures for the natural increase of the population by the excess of births over deaths is an examination of the actual records of births and deaths for the province. But a difficulty at once presents itself. The record of deaths was not extended to the rural areas of Upper Burma till 1901 and the record of births till 1907. Consequently there exists no complete record of births and deaths for this portion of the province for the decade. Even this late extension does not extend to the whole of Upper Burma, and on the date of the census the Salween and the Northern Arakan Districts and the five Northern Hill Districts were still without any records of births and deaths. Any examination of the vital statistics must therefore be partial and can refer to only a portion of the province.

The duty of recording the occurrence of births and deaths is imposed on village headmen in rural areas and ward headmen in towns. Each recording officer is supplied with blank books prepared for entries in counterfoil. At regular intervals, varying from three days to a month according to general police requirements, the counterfoils are collected by the police beat patrol, which regularly visits every village and hamlet in each police station jurisdiction. The book of foils remains with the village headman and enables inspecting officers to test the accuracy of the entries. Government vaccinators are the principal testing agency, but superior executive officers are supposed to check the records in every village visited. When the counterfoils have been collected they are taken to the police station and sent with a return month by month to the Civil Surgeon, who in turn prepares a return for the whole district from the returns of the various police stations.

Both Mr. Eales and Mr. Lowis in the Census Reports of 1891 and 1901, commended adversely on the accuracy of the statistics compiled by this agency. In the ten years that have elapsed since the Census for 1901, it was hoped that a

great improvement would have been effected. But a perusal of the reports of the department actually concerned in their preparation shows that but little reliance can be placed on them. In the Report on the Sanitary Administration of Burma for the year 1901, dated 14th May 1910, less than a year before the actual enumeration was made, the Sanitary Commissioner for the province makes the following remarks on the reliability of the vital statistics :—

"As to the general inaccuracy of the returns of births and deaths in the rural areas and towns of Burma there is a little doubt in the minds of those who have enquired into the subject. The argument that among the very large numbers of occurrences registered the omissions will to some extent counteract the exaggerations cannot be admitted to apply to the statistics of relatively small populations. The fact that the infantile death-rate for so large an area as Upper Burma is excessively high, and that therefore the estimated natural increase of the population is extremely low is of serious moment if the returns are to be depended upon as possessing any approach to accuracy. In the area under registration the percentage increase for the year on a census population of 8,543,753 was 0·57. The natural increase for Lower Burma was 42,110 lives, equal to 0·76 per cent. of population, and for Upper Burma only 6,835 lives, equal to 0·23 per cent. The natural increase for the whole of British India including Lower Burma for the year 1906 was 0·29 per cent. while that for Lower Burma in the same year was 0·52 per cent. which, while being much above the average for British India, was below the ratio for the year now under review. There has been some increase in the population since 1906 so that the actual increase is less than that given, which is estimated on the census population of 1901. This marked discrepancy between the ratios for natural increase of the Lower and Upper Burma populations throws serious doubts upon the even approximate correctness of the registration returns as a whole. The much higher infantile mortality in Upper Burma than in Lower Burma confirms this suspicion. The registration of births in rural areas in Upper Burma has only been in force since January 1907, and it is to be expected that the return of births will be less accurate in that area than in the districts of Lower Burma where the system has been in force for many years. On the other hand, the number of births recorded in Upper Burma is, proportionally to population, larger than in Lower Burma, and there is also evidence that the returns of births in rural areas of Lower Burma are anything but accurate. The problem bristles with contradictions, and at the same time affords no data for arriving at a correct solution. Under these circumstances any exhaustive analysis of the returns of infantile mortality must prove unfruitful. But the uncertainty which undoubtedly exists as to the accuracy of the returns provides very strong reasons for instituting careful enquiries for their verification in places where special need for such investigation exists, and the result of such an enquiry should afford indications for improving the conduct of the registering agency there and elsewhere or, should the returns under suspicion prove to be reliable, some explanation of the high mortality should be forthcoming which will afford suggestions for counteracting the morbific agencies responsible for it.'

In the Resolution by the Local Government on the same report it is stated that the want of accuracy must be regarded as inevitable, if it is remembered that the registration is, except in towns, carried out by the village headmen, who are often barely literate and whose duties daily become more multifarious. In the following year, a year which extended to within two months and ten days of the date of the census, in the city of Mandalay where a high degree of accuracy was to be expected, the registrars discovered 1,150 unregistered births out of a total of 5,611. If over 20 per cent. of the births remain unrecorded in Mandalay, where more efficient registration is possible, but little reliance can be placed on returns from rural areas. In the same report it is explicitly stated that in urban areas registration is more effectively controlled than in rural areas, and that more accurate reports may be expected from the former. It is therefore probable that the degree of inaccuracy considerably exceeds the 20 per cent. detected in one specific city area. One cause of the large degree of inaccuracy of the record is due to the system of inspection by government vaccinators. In many districts there is a strong objection to vaccination, the older method of prevention of small-pox by inoculation being preferred. In such districts the knowledge that the government vaccinator is an official inspector of vital statistics leads to the omission to report the occurrence of births on a large scale. Apart from omissions to report and omissions to record, there is a liability to error in the collection and preparation of the returns. In 1910, collecting agencies were prosecuted on 21 occasions for failure in the collection of counterfoils, falsification of registers and neglect of partrol duty, and suitable punishments were awarded.

It is probable that the omissions to record births are much greater than the omissions to record deaths. As Mr. Eales stated in his report, there are so many people who must know about every death that occurs. A funeral is a social function involving the maximum of publicity whereas there is no public ceremony closely connected with the birth or first years of the life of a child. There is therefore a much greater possibility of a birth than a death being omitted. It is with respect to the births rather than with respect to deaths that the complaints

as to errors and omissions are most frequent. It is necessary to allow for these errors in considering the percentages shown in the marginal statement. Those for births and for natural increase are less than they would be if more accurate records could be compiled. The percentage of increase for the decade, 8·22 (or 9·59 if Rangoon be excluded) understates the true rate of natural increase. The effect of the figures for Rangoon town on the statistics for the province is remarkable. A large masculine immigration has resulted in a set of conditions tending towards an abnormally high death rate and an abnormally low birth rate. The potency of the contrary tendencies of the rate of increase in Rangoon and the remainder of the province is demonstrated if a comparison is made of the rates obtained when it is included and excluded from the calculation. Its exclusion from the districts comprising the Deltaic Plains serves to raise the rate of increase from 7·40 to 9·43, while its exclusion from the provincial totals raises the rate of increase from 8·22 to 9·59.

Vital Statistics.

Area.	Percentage of population of 1901.		
	Births.	Deaths.	Natural increase.
Central Basin (2 districts only).	36·10	27·62	8·48
Deltaic Plains ...	32·86	25·46	7·40
Deltaic Plains (Rangoon excluded).	33·83	24·40	9·43
Coast Ranges (6 districts only).	32·67	22·09	10·58
Province	33·17	24·95	8·22
Province (Rangoon excluded).	33·82	24·23	9·59

The principal epidemics affecting the increase in the population for the decade 1901-1911 were :—

(i) an epidemic of cholera in 1903, and a series of epidemics of the same disease from 1905 to 1909 ;
(ii) an epidemic of small-pox in the years 1905 and 1906 ;
(iii) the appearance of plague in Burma in 1905.

The actual mortality from all these cases is given in Subsidiary Table X of Chapter V. The extra mortality due to the epidemics mentioned after deducting the normal mortality found to prevail in ordinary years is 91,848. Allowing for the fact that the record of deaths is not extended to the Northern Hill Districts, the Specially Administered Territories and the Northern Arakan and the Salween Districts, this extra mortality was responsible for a death rate of approximately one per cent. of the population.

Mortality from epidemics (1901-1911).	
Cholera ...	38,130
Small-pox ...	10,701
Plague ...	43,017
Total ...	91,848

54. Natural Increase of Buddhist Population.—The second method of estimating the natural increase of population for the province, a method which promises more accurate results than a consideration of the vital statistics, is a consideration of the increase of the Buddhist population for the province as a whole. This was the method employed by Mr. Hardy in his comparison of the statistics for 1891 and 1901. It did not then achieve accurate results because the populations compared were not for identical areas for the two enumerations. The Buddhist population is but slightly affected by migration either by sea or overland. Practically no Buddhists are included among the immigrants by sea, the immigrant races being principally Hindu, Mahomedan, Animist and Christian. Animists preponderate in the immigrants arriving by land, and though there is a tendency for the Animist immigrants to embrace Buddhism, the numbers would not be so great as to largely affect the figures of the comparison. The emigration of Buddhists from the province is also insignificant. There is a large internal migration of Buddhists, but this does not affect the figures for the province as a whole. It is of course necessary to exclude from the comparison the areas

Buddhist population.

Population of	1911.	1901.
Province	10,384,579	9,184,121
Areas excluded from comparison.	42,095	...
Areas available for comparison.	10,342,484	9,184,121
Increase	1,158,363	..
Per cent.	12·61	...

for which no religious classification was effected in 1901. Provincial Table II enables the Buddhist population of these areas (Kokang, West Manglun, the Kachin Districts of North Hsenwi, Karenni, the Chin Hills and the Pakôkku Hill Tracts) for 1911 to be excluded. The marginal statement indicates the result after this deduction has been effected. The Buddhist population over the comparable areas of the two census years has increased by 1,158,363 or 12·61 per cent.

55. Variation in Natural Population.—An attempt has been made to discount the effect of migration by a consideration of what may be termed the natural population as distinguished from the actual population of each district. The natural population may be defined as comprising the persons actually born in the district. It is calculated by deducting the number of immigrants or persons born in other districts from the actual population, and then adding the emigrants, or persons born in the district concerned, but enumerated in other districts. The method of calculation and the percentage of variation in the natural population is given in Subsidiary Table II, and its increase is compared with the excess of births over deaths in Subsidiary Table III. It is doubtful if this method would have produced any conclusive results even if the districts in Burma had been fixed, permanent and universally known territorial areas. Mr. Gait, in paragraph 91 of the Bengal Census Report of 1901 has demonstrated that the actions and reactions existing between migration and natural increase of population are of a complex nature, and not to be separated by the simple device of working from the natural instead of from the actual population. The mere record that a person born in one district is recorded in another, without a consideration of his age, the nature of his migration, whether permanent or temporary, and the date of his migration, whether prior to or subsequent to the previous census, is ineffective in estimating the separate factors of natural increase and migration in the variation from one census to another. But in Burma, the recent annexation of Upper Burma and the state of administrative transition of the province within the lifetime of the present generation, have rendered the records of natural population of but little value in themselves. Most of the districts in the province have been the subject of extensive territorial changes. A reference to the Census Report of 1872 shows that of the eleven districts now included in the natural division of the Deltaic Plains, nine are new names, only two having been in existence at that time. It is natural that an emigrant who has severed his connection with a locality should enter the name of the district with which he was familiar at the time of his migration. A person who left the Rangoon District, as constituted in 1872, might have been born in any of the present districts of Rangoon, Hanthawaddy, Pegu, Ma-ubin or Pyapôn, yet he would probably enter Rangoon District as the place of birth. Similarly a person who left the Bassein district as constituted at a much later date, might have been born in any of the present districts of Bassein, Henzada, Ma-ubin, Pyapôn or Myaungmya. Many instances of the errors due to the change in administrative areas since migration occurred might be given. The small number of emigrants from the Yamèthin, Thatôn and the Upper Chindwin Districts and the large number from Bassein and Mandalay in 1901 are obviously due to an incorrect appreciation of the exact territorial limits of these administrative areas at that time.

It is possible, by treating wider and more constant areas than are enclosed within narrow and fluctuating district boundaries, to eliminate the sources of error and confusion caused by changes in the boundaries of birth districts. The Central Basin, the Deltaic Plains and the Coast Ranges are three of the natural divisions of the province, wide enough to eliminate the majority of the entries rendered incorrect by administrative changes, and sufficiently distinctive to be taken as unit areas for a comparison of the natural populations at the dates of the enumerations of 1901 and 1911. It is rather difficult to explain concisely the exact meaning of the statement embodied in Subsidiary Table II that the increase in the natural population of the Deltaic Plains between 1901 and 1911 was 19 per cent. As briefly as possible, it means that the persons born in the Deltaic Plains and living in 1911 were 19 per cent. more numerous than the persons born in the same area and living in 1901. But such an increase is not identical with the natural increase of population in that area for the period 1901 and 1911. The difference between the two elements of the comparison is due to forces operating largely prior to the intervening period, rather than during the intervening period. The natural population of 1901 is the resultant of a series of births and deaths within a certain area operating for a certain period up to that date. The natural population of 1911 is the resultant of a similar series of ten years' later date. But they have

been influenced by many extraneous factors. The abnormal increases of 36, 25 and 21 mentioned in paragraph 49 (in so far as they are true increases) have operated on them in widely varying degrees. The most probable conclusion to be drawn from the comparison is that the general average size of the population from which the generation of 1911 was born was 19 per cent. greater than the general average size of the population from which the generation of 1901 was born. The natural population is a measure of the past population of an area, whether indigenous or immigrant, and any comparison between the natural populations of two periods must contain the disturbing element of previous migrations. The increase of 19 per cent. for the populations of the Coast Ranges and the Deltaic Plains while that of the Central Basin has increased by 10 per cent. only, indicates in the former cases that past immigration has assisted the rate of increase, and in the latter case, that past emigration has had a retarding effect. They cannot be regarded as assisting in any way to a determination of the natural rate of increase.

In considering the variation in the natural population for the province as a whole it is necessary to reduce the figures given in Subsidiary Table II in order to get a comparison over identical areas. The necessary deductions from the actual populations for 1901 and 1911 are given in the first marginal statement to paragraph 52. To obtain the natural populations for these areas it would be necessary to use corrected figures for the immigrants and emigrants adjusted to these reduced areas. Such figures would be impossible to obtain, as no statistics for birthplace were taken for the majority of the areas now excluded from the comparison. Even if they were obtainable their effect on the figures would be inappreciable. It will make no appreciable difference if the deductions of paragraph 52 for the excluded areas are made direct from the natural populations as given in Subsidiary Table II. There is a resultant increase of 1,421,348 or 14·5 per cent. This is however no indication of the natural increase of population. As previously shown, the figures for the natural populations at the two periods are affected in varying degrees by previous immigration into the province. Although actual immigrants are excluded from the figures, such children and descendants of immigrants as are born in the province are included. In Burma with such a large immigration from year to year, the number of children and descendants of immigrants would be relatively greater at the later period, and would cause an enhancement in the rate of increase of the natural population over the natural rate of increase.

Variation in Natural population.	
Year.	Population.
1901 ...	9,812,416
1911 ...	11,233,764
Increase ...	1,421,348
Per cent....	14·5

56. Comparison of Actual Population of 1901 with Natural Population of 1911.—The fact that though immigration into Burma is of considerable dimensions, the emigration of the indigenous population is barely appreciable, suggests another method of estimating the natural rate of increase of the population. Ignoring such emigration as being too insignificant to affect the resulting percentage, the actual population of 1901 can be compared with the population shown as being born in the province in 1911. This comparison is practically between the actual population of 1901 and the natural population of 1911. There is one factor however which vitiates this method. Although the number of emigrants calculated from the statistics of birthplace given in Imperial Table XI as given in Subsidiary Table V of Chapter III is insignificant, there exists as will be seen in the succeeding chapter of this report, a large seasonal emigration which cannot be detected by these tables. A very large proportion of the 475,489 immigrants recorded in the census tables for 1901 were temporary immigrants only. Such temporary immigrants would have little or no effect on the natural increase of the population. It may be said that their places would be taken by others, and that though the individuals themselves might be temporary sojourners in the province, yet their numbers as a whole were constant or increasing, and would have practically the same effect as if they comprised the same individuals year after year. But even allowing for the constancy or increase in their numbers, while the actual individuals change

Year.	Population.	
	Class.	Numbers.
1911 ...	Actual ...	11,786,195
	Immigrants	590,965
1911 ...	Natural ...	11,195,230
1901 ...	Actual ...	10,299,397
1901-11 ...	Increase ...	895,833
	Per cent. ..	8·7

from year to year, there are the factors of the absence such temporary immigrants during off seasons, the large preponderance of males in their numbers, and the impossibility of family life, which operate to prevent their contributing to the increase in the population proportionately to their numbers. The low percentage of increase of 8·7 for the decade must be attributed to the inclusion in the figures for 1901 of the immigrant population of nearly half a million persons, a very large proportion of whom were temporary immigrants divorced entirely from the general life of the province, and living in such conditions that they exercised a negative rather than a positive effect on the increase in the population. The effect of the inclusion of this class of persons on the natural rate of increase can be seen in the figures illustrating paragraphs 53 and 57 of this chapter.

57. General Conclusions as to Natural Rate of Increase.—The marginal statement has been prepared to summarise in a form handy for reference all the materials available for estimating the natural rate of increase of the population for the decade 1901-11. The areas over which the rates of increase have been calculated differ for each item included in the statement, but the greatest care has been taken that for each item the calculation should be made for an identical area for the two periods compared. The first item gives the corrected rate increase of all sections of the population, immigrants included, as obtained in paragraph 52 above. The second is deduced from Mr. Hardy's estimate of a rate of increase of 12 per mille per annum after an examination of the census statistics for 1891 and 1901. The third, fourth and fifth have been deduced from a comparison of the census statistics for 1901 and 1911. The last six have been obtained from the vital statistics as recorded in twenty-one districts of the province. The most reliable test of all is the third item. It has been calculated on a widely-spread indigenous and practically homogeneous population, comprising 85·72 per cent. of the total inhabitants of the province, not appreciably affected by external migration, and living in natural conditions in their own country. This percentage may be slightly enhanced above the true rate of increase by the gradual acceptance of Buddhism by the animistic tribes on the borders of the province. This disturbance would be extremely slight, as most of the areas where such tribes dwell have been excluded from the comparison in order to ensure that it should be effected over identical areas. It has been seen that the percentage of the fourth item is above and that of the fifth item is below the true natural increase. It is also certain that the percentages of the items deduced from the vital statistical records are below the real rates of increase. It is also demonstrated that the rate of increase of the immigrant races is much below that of the indigenous population, and that the difference is sufficiently marked and sufficiently extensive to influence the rate for the province as a whole. All these indications seem to converge to the conclusion that the natural rate of increase for the Buddhist population is very closely approximate to that of 12 per mille per annum or 12·65 per decade which was assumed by Mr. Hardy as a result of his examination of the census statistics for 1891 and 1901. This figure is perhaps a trifle greater than the true rate of increase which would fall most probably between 12 and 12·5 per cent. for the decade. A reduction, approximately one-half per cent., would be necessary if the natural rate of increase of the total population rather than that of the Buddhist population were required. The most probable figure for the variation of all classes of the population between 1891 and 1901, from natural increase only, would be about 12 per cent.

No.	Rate of increase 1901-11. Section of Population.	Increase per cent.
1	All Sections	14·43
2	Buddhists (1891-1901)	12·65
3	Buddhists (1901-1911)	12·61
4	Natural population	14·48
5	Actual (1901), Natural (1911) ...	8·70
6	21 Districts (Rangoon included)	8·22
7	20 Districts (Rangoon excluded)	9·59
8	Deltaic Plains (Rangoon included)	7·40
9	Deltaic Plains (Rangoon excluded)	9·43
10	6 Districts (Coast Ranges) ...	10·58
11	Rangoon (natural decrease) ...	—22·89

It remains to be considered to what extent the increase of 14·43 per cent. is to be attributed to its constituents of natural increase and immigration, and what portion is due to increased efficiency of enumeration. Ignoring the emigration of persons born in Burma as being too insignificant to affect the percentage, the net gain to the province by immigration for the period 1901 to 1911 is 115,481. But this figure is not the actual number of immigrants within the area for which the comparison of the

Year.	Immigrants.
1911 ...	590,965
1901 ...	475,484
Increase ...	115,481

populations of 1901 and 1911 has been instituted. To the immigrants in the marginal statement it is necessary to add the immigrants arriving from the areas excluded from the comparison, as detailed in paragraph 52, into the area of comparison. It would also be necessary to add the immigrants from the unadministered portions of the Upper Chindwin, Myitkyina and Northern Arakan Districts. Such persons have been recorded as being born in these districts, though from a census point of view they should have been recorded as being outside the province. The numbers of such immigrants into the area of comparison between the populations of 1901 and 1911 would be considerable, as there is a marked tendency to migrate from the unadministered territory into districts under administrative control,a nd from the more remote areas of the province into the regularly administered districts. It is impossible, however, to estimate the number of such immigrants which should be added to the recorded increase of 115,481 to obtain the actual figure for the area now under consideration. Disregarding it for the present, the recorded increase due to immigration amounts to 1·12 per cent. Combining this with the 12 per cent. which has been deduced for the natural increase of the population,there remains a discrepancy of 14·43—13·12, or 1·31 per cent., to be accounted for. This percentage would amount to an actual population of 134,923. It can be allotted under the following heads :—

i. Immigration from the unadministered territory and from the excluded areas of paragraph 52.

ii. A marked improvement in the enumeration in the Bhamo and Myitkyina Districts and in the Northern Shan States.

iii. A slight general improvement in the efficiency of the enumeration throughout the province, rendered possible by administrative improvements, such as the more careful demarcation of village jurisdictions and the improvement in the status of village headmen in the province.

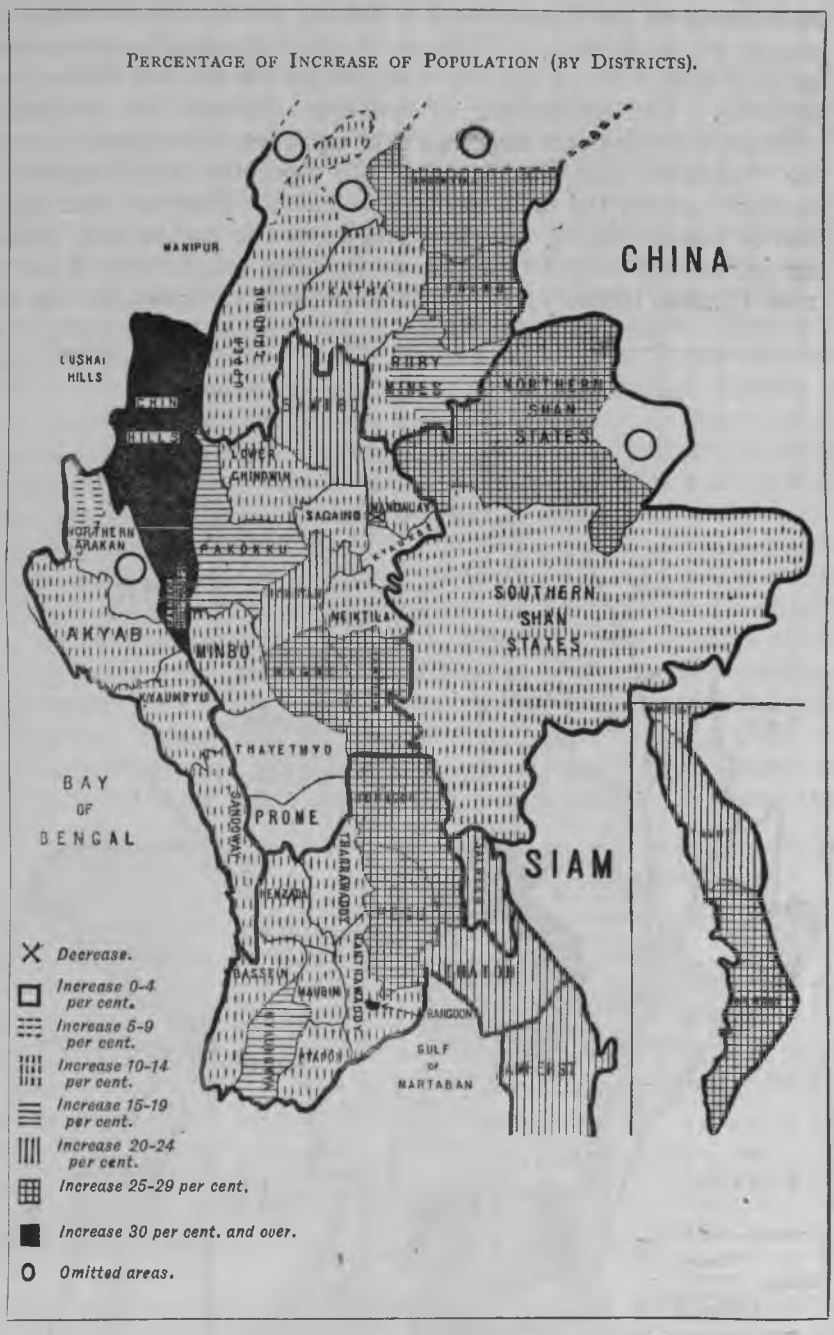
iv. An improvement in the enumeration in the areas hitherto treated non-synchronously in the Pegu, Thatôn, Amherst and Tavoy districts, but now enumerated synchronously.

Allowing for the first of these causes, the degree of under-enumerationin 1901 would be approximately one per cent. of the total population. It is too much to expect that the highest possible degree of accuracy has yet been attained. Even in Lower Burma, there remain areas in which a synchronous census is not yet possible, and one large region over which administrative control has not been attempted. In Upper Burma, the want of a clearly defined administrative boundary precludes the possibility of absolute precision in the results obtained. It has not yet been possible to attempt a synchronous census in any portion of the Specially Administered Territories. But apart from these main sources of error, there is not a district in the province outside Rangoon, which has not some borderland area, which is beyond the region of normal administration, and for which some special enumeration machinery has to be improvised out of whatever materials happen to be available. It is in such border areas, to which the general instructions issued cannot apply, and for which no check as to the comprehensiveness of the lists of the residential units can be imposed, that under-enumeration is most probable. With each succeeding census the liability to error becomes less, and the disturbance due to their omission gradually diminishes. The census enumeration in Burma is not a uniform record of the population of a homogeneous and fully administered province with fixed and determined boundaries. It is a record of varying degrees of accuracy following tentatively in the wake of administrative extensions, both general and local, gradually becoming more complete and correct, but still wanting in the elements of certitude and comprehensiveness which can only be attained by the slow and gradual process of improved administrative control.

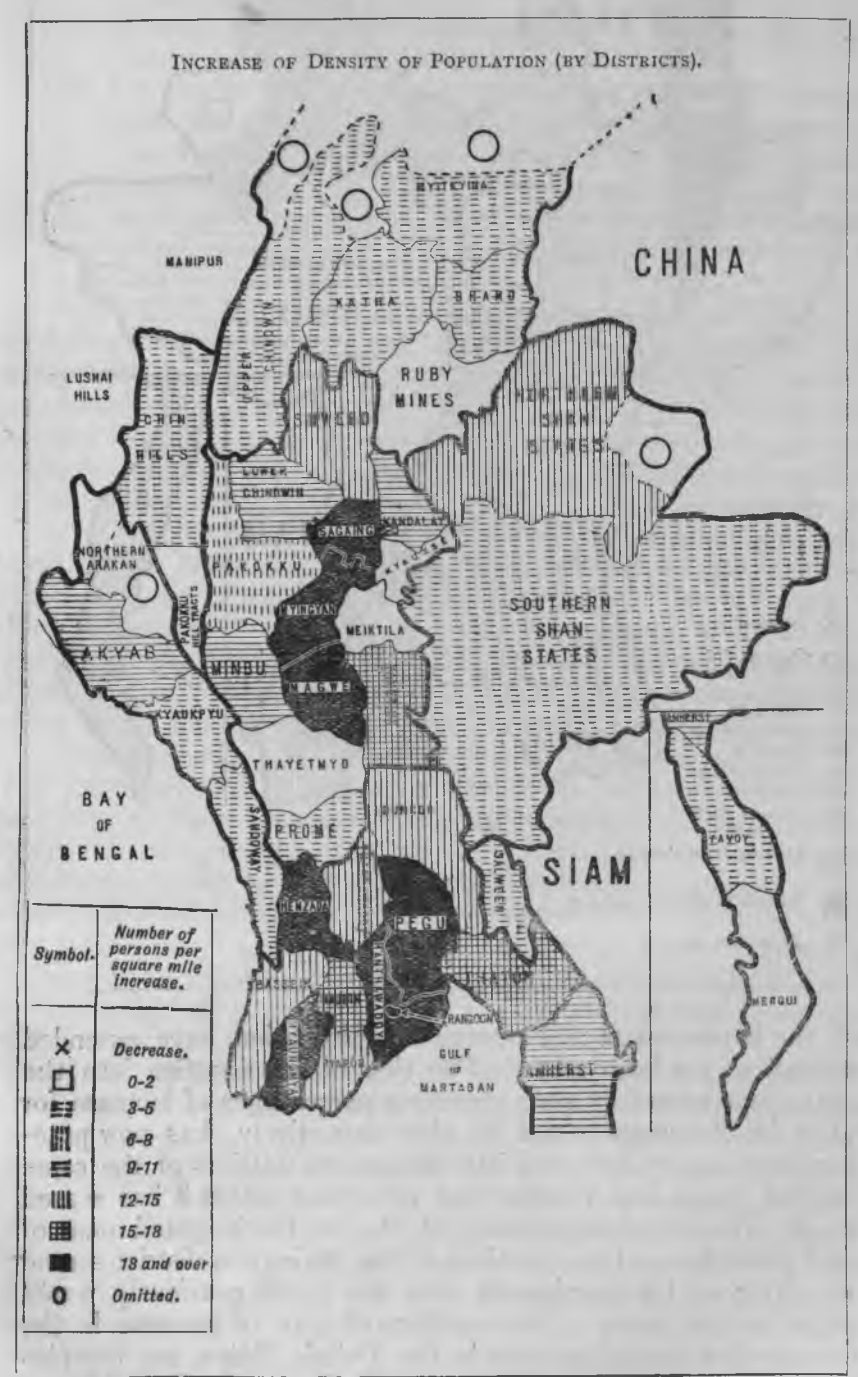
58 Modification in rate of Variation.—The increase of 14·43 per cent. in the population of the province is a marked decline from the increase of 17·5 per cent. experienced in the previous decade. Analysing the degree of decline over the five natural divisions, the Specially Administered Territories have to be omitted as they have no part in the increase for 1891 and 1901. The decline from 70 to 17 per cent. in the Northern Hill Districts is due to the non-coincidence of the areas of enumeration, and as these districts were excluded in obtaining the corrected return of 17·5, they have

Natural Division.	Increase per cent.	
	1891-1901.	1901-1911.
Province	14·4	17·5
Central Basin ...	13	9
Deltaic Plains ...	16	28
Northern Hill Districts	17	70
Coast Ranges ...	16	17

no concern in the general decline for the province. In the remaining three natural divisions, the variation in the rate of increase has been most remarkably distributed. While population has increased at an accelerated rate in the Central Basin, there has been a slight retardation in the Coast Ranges, and a striking retardation of the rate of increase in the Deltaic Plains. In the decade 1891-1901, the percentages of variation for the three natural divisions concerned ranged from 9 to 28. This range has now contracted to the narrow interval between 13 and 16 per cent. The population of the Deltaic Plains which previously increased at a pace over three times more rapid than the rate of increase in the Central Basin has now only the minor difference of three per cent. between their rates of variation. This tendency towards an equalisation in the rates of increase over the various portions of the province, indicates that there are forces tending towards the equalisation of economic conditions throughout its area. There are no longer vast tracts of culturable land in the delta, transformable into first class paddy land with a minimum expenditure of capital and labour. All such areas have been appropriated, and though large areas of waste still remain, they are only culturable at a progressively increasing cost. On the other hand, in the Central Basin the extension of the railway system, and the improvement and extension of irrigation, have extended the possibilities of cultivation over large areas. The tide of immigration into the western deltaic districts, represented by such enormous percentages of increase for the decade as 56 and 55 for Myaungmya and Ma-ubin respectively, has now practically ceased. It has been largely deflected into the eastern districts of the same natural division, Toungoo, Pegu and Thatôn; but to a great extent it has ceased to flow southwards at all. The petroleum industry at Magwe, the irrigated areas of Shwebo, Yamèthin and Pakôkku, and the portions of the Myingyan district served by the railway, have attracted the immigrants who ten years previously would inevitably have migrated to the delta. The accelerated rate of increase in the Central Basin, and the retarded rate of increase in the Deltaic Plains, are complementary to each other. They are not exactly cause and effect; they are different presentations of the same fact. They are both the resultant of the equalisation of



conditions in the two regions to such a degree that the southern area no longer presents an irresistible attraction to the resident of the northern area who is seeking to better his conditions. It is not here suggested that the districts of the Central Basin can compare in wealth and opportunity with those of the delta. But whereas in the decade 1891 to 1901 the relative advantages of the latter were represented by rates of increase of population of 28 and 9 per cent. respectively, they are now more correctly represented by increases of 16 and 13 per cent. The rate of increase in the eight districts belonging to the Coast Ranges has dropped from 17 to 16 per cent. It would have fallen to a much greater extent but for the commencement of the development of mining and rubber industries in the Tenasserim portion of the division. While the Arakan districts have increased by percentages ranging from 7 to 13, the increases of the Tenasserim districts range from 23 to 26 per cent. The appearance of the map showing the percentage of increase of population by districts suggests that there have been heavy increases in portions of the Northern Hill Districts and the Specially Administered Territories. Such increases are for the most part not genuine. They are due largely to the extension of census limits, and to changes in the methods of enumeration. Some of the increase is due to migration pushing southwards from unadministered or from Chinese territory, but it is impossible to estimate the extent of this constituent.



59. Variation in Density of Population. — The method of percentages is open to many objections in examining the variation of population over a given period. Where the density of population varies greatly, an increase per cent. in a sparsely populated district may appear to overshadow a much greater absolute increase in a district with a dense population. Its utility lies in measuring the rate of increase, which may be relatively high in a backward district because of the smaller population concerned. Taking a specific instance; on a reference to the map showing percentages of increase of population, Mergui District is seen to be increasing at a much greater rate than Henzada District, and Subsidiary Table I shows that their percentages

of increase are 26 and 10 respectively. From a consideration of percentages only, Mergui would appear to be exercising the greater influence on the increase of the provincial population. Yet the actual increase, as measured by the number of persons per square mile added to the population, is far greater in Henzada than in Mergui. This illustration suggests that in addition to an examination of the rate of increase measured by the percentage of added population, it is necessary to consider the inrcease measured by the added density of the population per square mile. A comparison of the map in the margin with the one illustrating the preceding paragraph indicates the extent of the difference of these two aspects of the variation in the population. The greatest increases measured by the number of persons per square mile added to the population occur in the central and western portions of the Deltaic Plains and in a line of riverain districts in the heart of the Central Basin. It is a matter for surprise that the largest increases in density have taken place where the density of population was already greatest. Henzada was in 1901 the most densely populated district in the province and it is among the seven districts which have added a population of eighteen persons per square mile or more during the decade. Sagaing, in 1901 the second most densely populated district in the Central Basin, is also included in the same seven districts. The remaining five of the districts showing a maximum increase of density also stood in 1901 in relatively high positions in order of density for the province. Subsidiary Tables IV (*a*) and IV (*b*) present quantitative statements of the actual and proportional variations of the population distributed among townships and states of different densities. As the mean density of population for the province is 53 only and that for Burma proper is 65, these statements indicate that the bulk of the increase of population is taking place in those portions of the province with a density already well above the mean. It is the comparatively densely populated Central Basin and Deltaic Plains, rather than the districts of the three outlying and sparsely populated natural divisions, which are contributing principally to the increase. And, it is in the comparatively densely populated portions of these two divisions, rather than those possessing but a sparse population, that the largest increases are occurring. The marginal statement gives the actual and proportional increases for all but a few exceptional townships in these two important divisions. Taking the three classes of townships with densities below 50, from 50 to 100, and from 100 to 150, the increases in actual population are in the same order of magnitude as the existing density, being greatest where the density is greatest, and least where the density is least. In the Central Basin, the percentages of increase follow the same order, showing that not only is the increase of population greatest where the density is greatest, but that the rate of increase of population is higher in the townships of greatest density. This would appear to indicate a tendency towards a great concentration of population in those areas where it is already most densely distributed, up to a limit of 150 persons per square mile. In townships beyond this limit both the actual increase of population and the rate of increase fall rapidly. In the Deltaic Plains the percentages of increase follow the reverse order of the density and of the actual increase of population, diminishing as the density increases. This indicates that although population has hitherto been attracted to the Townships of greatest actual density, the tendency is decreasing. In the Townships of least density the rate of increase is far beyond the natural rate, the discrepancy being accounted for by immigration. As the density rises, the difference between the actual and the natural rates of increase rapidly falls, until the two practically coincide in the Townships having a density over 150 per square mile.

Kind of Increase.	Mergui.	Henzada.
Actual ...	22,680	47,799
Per cent. ..	26	10
Persons per square mile.	2	18

Variation in population of townships by density.

Density.	Increase.			
	Central Basin.		Deltaic Plains.	
	Actual.	Per cent.	Actual.	Per cent.
Under 50 ...	54,242	13	69,154	32
50—100 ...	149,440	19	92,578	21
100—150 ...	172,210	20	172,791	18
150—300 ...	136,516	10	193,298	12

It is possible to interpret these statistical variations in terms of the actual conditions prevailing in the two natural divisions. In the Deltaic Plains conditions

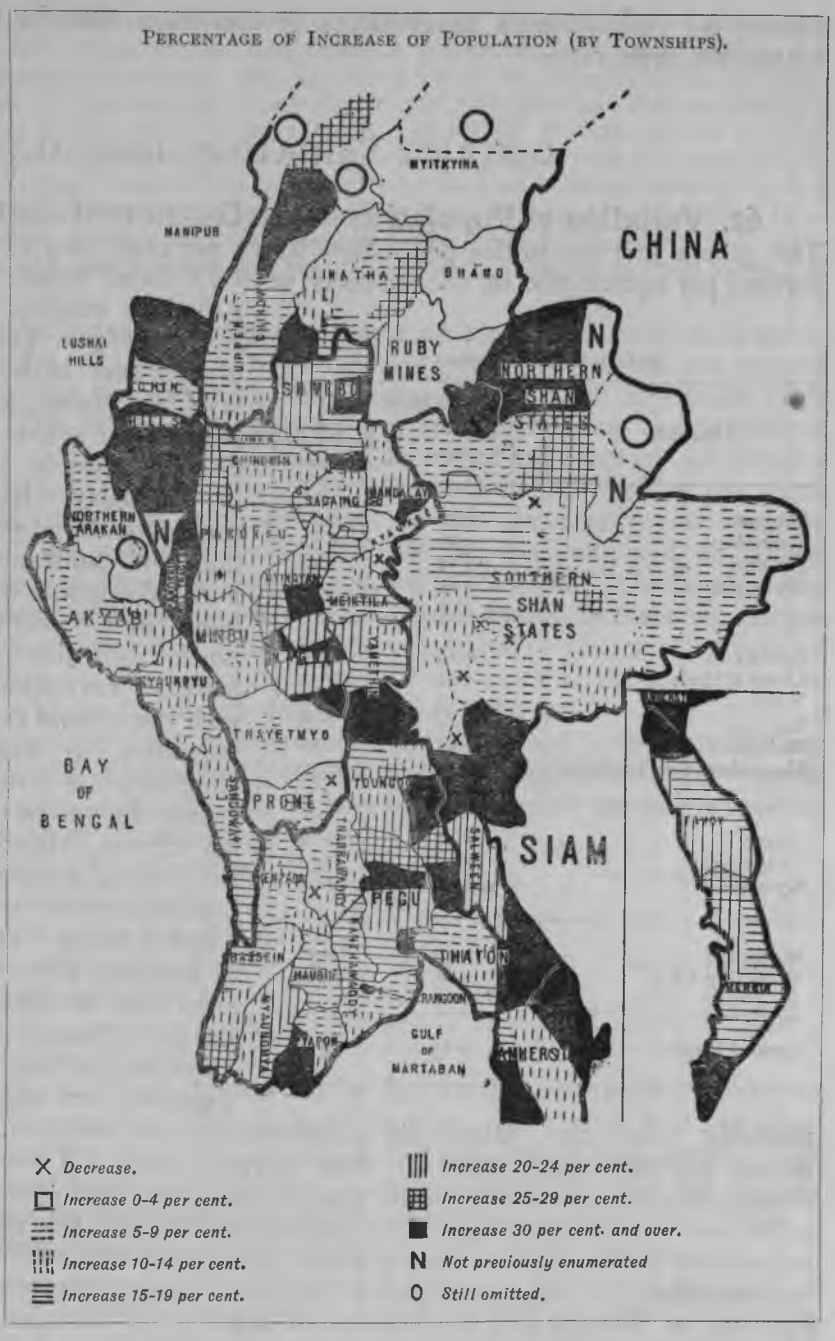
are much more uniform than in the Central Basin. The contour of the country is less diversified, the rainfall is more regular, and natural means of communication by water are plentiful. Consequently population can be much more widely distributed. Expansion commencing in the neighbourhood of occupied areas proceeds fairly uniformly, but as the density of population rises there is a tendency to go further afield to more remote areas. When the density of population attains a level of 150 per square mile, increase by immigration tends to cease and is deflected to areas of greater sparsity of population. In the Central Basin conditions are much less uniform. The contour of the country is more diversified, the area of culturable land is smaller, the rainfall is less regular, natural communications are more difficult, and there is a much greater degree of dependence on the artificial assistance of railways and irrigation. Consequently the tendency to a broader distribution of population is not so marked as in the deltaic region. It tends to concentrate in those localities having special natural or artificial advantages, up to a limit of 150 persons per square mile. Beyond that limit the tendency to dispersion commences, the increase of population in such localities being considerably below their natural increase.

The additions to the density of the population in the outlying portions of the province, the Coast Ranges, the Northern Hill Districts and the specially Administered Territories, do not compare with the increase of density in the two divisions forming the central portion of the province. Whereas an examination of percentages tends to obscure the amount of increase attained in the latter area, and to give undue prominence to the increases in the outlying regions, an examination of their respective increases of density serves to present their variations in a truer perspective. The differences in the two presentations are seen graphically in a comparison of the maps in the present and preceding paragraphs. The marginal statement gives a brief summary of the numerical contrast between them. The Central Basin and the Deltaic Plains have added to their densities at the rate of 11 and 16 persons per square mile while the Coast Ranges have added only three persons per square mile to their population, and the Northern and specially administered portions of the province have increased by a density of 5 per square mile only. These figures are a much more correct indication of the magnitide and importance of the variations than can be obtained by a consideration of the percentages alone.

Natural Division.	Increase, 1901-1911.	
	Per cent.	Density per square mile.
Central Basin ...	13	11
Deltaic Plains ...	16	16
Coast Ranges ...	17	3
Northern Hill Districts...	16	5
Specially Administered Territories.	22	5

60. Variation in Population by Townships.—The percentage of variation of the population by Townships is given in Columns 10 and 11 of Provincial Table I. Township areas however have as yet attained a lower decree of fixity than district areas. In the past decade, six townships have been abolished by amalgamation, nine extra townships have been created and the boundaries of 69 townships have been modified, 38 of the modifications being due to the reconstitution of fresh townships on entirely new lines, and the creation of entirely different townships with or without changes of name and headquarters. An attempt involving considerable amount of labour, has been made to reduce the variation of population for this period to the township areas as constituted in 1911. It cannot be claimed that the result possesses sufficient accuracy to base any reliable deductions as to the rates of variation by townships. In the majority of instances the notifications of change of area did not detail the village-tracts affected. Moreover the village statistics for the census of 1901 were given, not by village-tracts but by residential hamlets, and in the majority of cases of alterations of township boundaries, Deputy Commissioners were unable to identify which of such residential units were in the areas transferred from one township to another. The populations given in Column 9 of Provincial Table I contain many entries based rather on the probability that the transferred areas contained certain blocks of residential units, than on the certain identification of the population of such transferred areas. The percentages given in Column 10 of the same statement, and illustrated in the map showing the variation of population by townships, are not to be accepted as possessing any large degree of accuracy. No attempt has been made to carry the comparison over identical areas beyond 1901, and the percentages in Column 11 of Provincial

Table I include variations due to changes of area as well as to genuine increases of population. It was intended to utilise the variation by townships to trace to their ultimate sources any marked departures from normal rates of increase, but in the few cases in which the attempt was made the factor of changes of boundaries introduced such disturbances that the intention was abandoned. Such changes have been due largely to abnormal variations of population, and it is precisely where the details of township variations were most required that the figures are to be accepted with the greatest reservations.



61. Doubts as to Reliability of Statistics of Migration.—It is unfortunate that much reliance cannot be placed on the statistics showing the amount of emigration from each district. These are compiled from the records for birthplace presented in Imperial Table XI. The Upper Burma districts were created between 1886 and 1889 and many of them have been considerably modified since their original formation. A correct record of the district of birth cannot be expected, when the formation of the district, as at present constituted, did not take place till some time after the person enumerated was born, and probably after he had migrated from the locality, in the case of districts whose boundaries have been modified. Over larger areas the degree of error is lessened, but a utilisation of the statistics of inter-district migration for analysing the different factors responsible for the variation in the population of each district is not possible. The errors are naturally less in 1911 than in 1901, but their whole utility in this respect lies in a comparison between the figures for the two periods, and the earlier errors naturally effect the differences between them. The statistics for immigration are much more reliable. They are compiled from the numbers of people who were born outside the district of enumeration. In recording the birthplace of a person enumerated there is not much difficulty in determining whether he was born in the district of enumeration or not. The difficulty arises in determining in which of several possible recently-formed and distant districts the locality he mentions as his birthplace is situated. During, or shortly after, a period of transition the probability of error in the deduced

figures for emigration is many times greater than that for the corresponding figures for immigration.

DISTRICT VARIATION, 1901-1911.

62. Variation of Population in the Districts of the Central Basin.—The general increase of the population by 13 per cent. and of its density by 11 persons per square mile for the districts of the Central Basin, is the resultant of variations ranging from 28 per cent. in the Magwe District to a decrease of 7 per cent. in the district of Mandalay; and from an increase of 26 persons per square mile in Myingyan to a decrease of 12 per square mile in Mandalay. In the latter district the decrease is purely urban, and is due to circumstances already related in the discussion on the urban population in Chapter I. The remaining portion of the district shows an increase corresponding very closely with the natural rate of increase to be expected. It will therefore result in simplicity of treatment if the decrease due to the inclusion of Mandalay City is isolated and excluded from the general discussion of variations of population for the districts of the Central Basin. Considering the rates of increase after this exclusion it is seen that the districts fall into three distinct groups, according as they show an increase largely exceeding, departing but slightly from, or falling markedly below, the natural rate of increase for the province. The three groups do not approach each other in their extreme items. There is a broad line of division between the lowest constituent of one group and the highest constituent in the one next succeeding. The distinctions between the three groups are not so marked if the increase in population per square mile added during the decade be considered, the large variations in the initial density causing the two measures, the rate of increase and the increase of density, to diverge considerably in order of magnitude. But so marked are the original distinctions in the rate of increase, that the single interchange of positions of the two districts, Sagaing and Shwebo, would make the members of the threefold grouping coincide for both measures of increase. The measure of comparison by the rate of increase per cent. affords the best method of approaching the discussion, the alternative measure by increase of density being utilised when necessary.

Districts in Central Basin.

District.	Increase.	
	Per cent.	In density per square mile.
Magwe	+28	+22
Yamèthin	+26	+15
Shwebo	+24	+12
Myingyan	+23	+26
Pakôkku	+15	+ 8
Lower Chindwin ...	+14	+11
Minbu	+13	+ 9
Sagaing ...	+12	+19
Meiktila	+11	+12
Mandalay (City excluded)	+11	+10
Prome	+ 4	+ 4
Thayetmyo ...	+ 4	+ 2
Kyauksè	+ 0	+ 0
Mandalay	− 7	−12
Mandalay City ...	−25	−1,820
Central Basin ...	+13	+11

It is not suggested by the grouping of the four districts, Magwe, Yamèthin, Shwebo and Myingyan that they have any common characteristics beyond that resulting from their inclusion within the same natural division of the province and their abnormal rate of increase. An examination of the latter will indicate to what extent the causes of their exceptional increases are common to several or all of them, and to what extent, they are separate and individual. The following extract from the Census Report of 1901 expresses a common characteristic of three of them, which can be extended without hesitation to include the fourth:—

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Magwe ...	96	74	28	13
Yamèthin ...	72	57	26	18
Shwebo ...	62	50	24	21
Myingyan ...	142	116	23	1

"The inhabitants of the Myingyan District are only one per cent. more numerous now than they were ten years ago. In his district report Mr. Parlett adverts to the different causes which might have been expected to bring about this stage of things,

which at first sight suggests stagnation. 'Emigration and immigration in Myingyan' he says 'follow the barometer. It has long been an established custom in this district to migrate when scarcity threatens, and to return when the rains promise a livelihood.' It is doubtless the threatenings of scarcity in the past that has thus arrested the normal growth of the people, and it occurs to me as conceivable that the reason why the readjustment of population after the lean years is slower in Myingyan than in the neighbouring districts of Meiktila and Yamèthin and in Shwebo, areas also liable to scarcity—is that until quite recently Myingyan has not, like these other three districts, been traversed by a railway. Time will show whether the new branch line from Thazi to Myingyan will facilitate and expedite the ebb and flow that are bound to ensue on a failure of crops and a hint of famine."

The tendency to extensive temporary migration operates in various degrees. It was to a retardation of the return of the temporary emigrants that the almost stationary figures of the population of the Myingyan District for the decade 1891 to 1901 was due. This retardation operated in unduly depressing the population for that District in 1901, and thereby caused an undue enhancement of the rate of increase in the period 1901 to 1911. The abnormal increase of 23 per cent. in the decade 1901 to 1911 is complementary to the abnormally low increase of one per cent. in the previous decade. If the two be combined an almost normal rate of increase over a period of 20 years is obtained. Assisted by the branch railway, mentioned by Mr. Lowis as a probable factor in restoring normal conditions, by the discovery of oil and the commencement of the development of the Singu oil area, and by the generally favourable character of the seasons in the past ten years, most of the temporary emigrants have returned.

The increase of 28 per cent. in Magwe is to be attributed to the development of oil production in the Yenangyaung township of this district. There was an increase of 13 per cent. approximating to the natural rate of increase, between 1891 and 1901. Other factors have remained the same for the subsequent decade, but the remarkable increase in the amount of oil produced has attracted a large population which would previously have migrated southwards to the deltaic region of the province. The causes of increase in the Yamèthin and Shwebo Districts are sufficiently similar to be discussed concurrently. Prior to the construction of the railway to Mandalay, Yamèthin was a district of low density of population, and few means of communication with the outside world. The greater portion of the Shwebo District was in a similar condition until the railway was extended northwards towards Mogaung and Myitkyina. The construction of the railway made the cultivation of crops for export a profitable occupation. Extensive schemes of irrigation have also been carried out in the two districts which rank respectively first and second among the districts of the province, both in the total acreage irrigated, and in the amount of newly irrigated area added during the period, 1901 to 1911. Simultaneously with the increased possibilities of communication provided by the railway, and the increased areas rendered culturable by irrigation, a decline in the areas available for cultivation in the southern portion of the province began to operate. The course and magnitude of migration were deflected. Shwebo and Yamèthin offered opportunities to intending Upper Burman emigrants much nearer home than the distant districts of the delta. The large increases are a measure of the extent to which they have availed themselves of such opportunities.

District.	Area irrigated.		
	1911.	1901.	Increase.
	Acres.	Acres.	Acres.
Shwebo ...	135,117	32,643	102,474
Yamèthin ..	129,128	93,621	35,507

The six districts of the Central Basin with an increase departing but a small decree from the natural rate of increase for the province, would, but for the intrusion of Myingyan District, form a compact group in the centre of the dry zone of Upper Burma. It has been seen that the rate of increase of Myingyan District is normal if the incidental depression of the figures for 1891 be ignored and the comparison be taken over twenty years instead of for the decade. The group of seven Districts (Myingyan included) forms the most typically Burmese portion of the province. The statistics of migration show

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Pakôkku	66	58	15	14
Lower Chindwin ...	90	79	14	18
Minbu	80	71	13	8
Sagaing	171	152	12	15
Meiktila	128	116	11	16
Mandalay (City excluded).	97	87	11	— 2

that generally the number of emigrants from and immigrants to all these districts is much less than in 1901. The most marked exception is in the Lower Chindwin District where the number of immigrants has increased from 4,291 to 22,968. Pakôkku and Mandalay are the only districts of this group affected largely by extensions of irrigation. It is to the extension of irrigated area and the development of oil production in Yenangyat that the increase of population in the Pakôkku District above the natural rate of increase is to be attributed.

District.	Irrigated Area.		
	1911.	1901.	Increase.
	Acres	Acres.	Acres.
Pakôkku... ...	47,287	14,148	33,139
Mandalay ...	84,281	26,280	58,001

The Lower Chindwin District illustrates the possibilities of error in the record of birthplace in Burma. If the records of birthplace are to be accepted as correct the net loss by migration has been 43,278, 41,414 and 8,841 for the three years 1891, 1901 and 1911 respectively. This large diminution in the loss by migration between 1901 and 1911 would indicate a much larger expansion of population than was experienced in the decade, 1891 to 1901. Yet the records of the actual population show an increase of 18 per cent. in the earlier period, against 14 per cent. in the later period, when the remarkable difference in the emigration statistics suggests a higher rate of increase. Part of the discrepancy can be traced to its source by examining the statistics for immigration from the Upper to the Lower Chindwin District. It is contrary to actual experience that this southern migration should have increased in such a marked manner since 1901. The general movement southwards is perhaps the most outstanding fact concerning the past internal movements of population in the province. It is inconceivable that it was inoperative prior to 1901 along such an important line of communication as the Chindwin river. What probably happened is that the enumerators of the Lower Chindwin District omitted to record a distinctive entry for immigrants from the Upper Chindwin and in the course of tabulation they were entered as being born in the district of enumeration.

Lower Chindwin District.			
——	1911.	1901.	1891.
Immigration ...	22,968	4,291	2,693
Emigration ...	31,809	45,705	45,971
Net loss ...	8,841	41,414	43,278

District.	Area irrigated.		
	1911.	1901.	Increase.
	Acres.	Acres.	Acres.
Minbu ...	70,561	57,110	13,451
Meiktila ...	120,505	102,356	18,149
Mandalay ...	84,281	26,280	58,001

Concerning the remaining districts of this group their rate of increase is sufficiently near to that of the natural increase of population by the excess of births over deaths to render unnecessary an examination of the influence of migration on their population. They are districts which have proceeded steadily, losing a comparatively small proportion of their inhabitants by migration to Lower Burma. In three of the districts, Minbu, Meiktila and Mandalay there have been considerable improvements in irrigation and extensions in the areas irrigated. In Minbu this has been the cause of an advance in the rate of increase. In Mandalay it has enabled the outlying portions of the district to withstand the potent influence of the marked decline in the city population and has transformed a decrease of two per cent. into an increase of 11 per cent. In Meiktila it has enabled a district of high density to maintain a rate of increase of 11 per cent. and to supply a surplus for emigration. The increase in Sagaing, the most densely populated district in the Central Basin, coincides with the probable natural increase of births over deaths. It has been but little affected by migration within the past ten years. Irrigation plays no part in maintaining and increasing its high density of population. It is rather the long association of the people with the locality and the intimate connection it has exercised on the political development of the Burmese race, which have operated in preventing a large migration of its population.

Emigrants from Meiktila District.	
1911 ...	44,203
1901 ...	36,243
Increase ...	7,960

There remain three districts in the Central Basin, Prome, Thayetmyo and Kyauksè, whose increases are so small that they must have been influenced largely by migration. The vital statistics for the Prome and Thayetmyo Districts show increases of 8·80 and 9·52 per cent. respectively for the decade 1901-1911, by the

operation of the natural excess of births over deaths. These are in all probability an under-estimate owing to the liability of births to be omitted from the records to a greater extent than deaths. However, accepting the figures as they stand, the natural increases by excess of births over deaths are far greater than the increase in the actual population. The differences should be capable of reconciliation by allowing for the effects of migration; but discounting these as far as possible by calculating the natural population, the discrepancies still remain. The recorded numbers of emigrants and of immigrants in each district have diminished slightly, whereas to account for the low rate of increase, emigration should have proceeded at a more rapid pace than immigration. The variation in population in these two districts is due to a series of intricate causes. Prior to the annexation of Upper Burma their population was artificially enhanced by their position as districts near the frontier line between the two portions of the province under Burmese and under British rule respectively. After the annexation their importance waned, and their surplus population dispersed partly to Upper Burma whence it had largely been recruited, and partly to the delta districts which then offered such excellent opportunities for the settlement of surplus population. This dispersion was responsible for the decreases in their population for the decade 1891 to 1901, and it still operates to a limited decree in keeping the rate of increase below the natural rate due to the excess of births over deaths. The statistics for birthplace however are not sufficiently correct to permit the actual extent of this emigration to be determined. It is similarly impossible to reconcile the stationary population of Kyauksè District with the recorded figures for migration. There must have been in the decade a net loss by migration equivalent to about 12 per cent. of the population, but the statistics of birthplace show that the resultant effect of migration on the population differed but slightly at the beginning and end of the period of comparison. Kyauksè is one of the two districts of the Central Basin showing a surplus of immigrants over emigrants. This does not necessarily mean that it is a rapidly progressive district as the surplus of immigration over emigration may be growing less year by year. But it enhances the difficulties of reconciliation of the figures for migration with those showing the comparative absence of variation in the population. The most probable cause of the discrepancy is that the statistics of birthplace are not sufficiently correct to enable the exact amount of migration to and from the district to be determined.

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Prome ...	130	125	4	—1
Thayetmyo	52	50	4	—4
Kyauksè ...	111	111	0	12

District.	Natural increase.	Increase of	
		Natural Population.	Actual Population.
Prome ...	28,534	11,018	13,067
Thayetmyo...	22,825	9,838	8,569

Kyauksè District.		
——	1911.	1901.
Immigrant s ..	12,918	17,451
Emigrants ...	4,390	7,192
Gain ...	8,528	9,259

63. Variation of Population in the Districts of the Deltaic Plains.—The Districts of the Deltaic Plains can be divided into three groups for the purpose of discussing their variation in population for the ten years, 1901 to 1911. The eastern group, comprising the three districts of Pegu, Toungoo and Thatôn, has experienced the most rapid rate of increase. The western group, comprising seven districts and coinciding closely with the area of the delta of the Irrawaddy, shows a remarkable diminution in the rate of increase from that previously experienced. The City of Rangoon, whose variation in population has already been considered in Chapter I, must be placed in the third group by itself. The range of variation throughout this natural division is far smaller than is to be found in the districts of the Central Basin. Excluding the City of Mandalay the variation in the latter ranged from zero to 26 per cent., whereas in the Deltaic plains its range is

Districts in Deltaic Plains.		
Districts.	Increase.	
	Per cent.	In density per square mile.
Pegu	26	18
Toungoo ...	26	12
Thatôn ...	21	17
Myaungmya ...	18	20
Hanthawaddy	14	21
Bassein ...	13	12
Pyapôn ...	13	14
Tharrawaddy	10	12
Henzada ...	10	18
Ma-ubin ...	10	16
Rangoon ...	20	1,711
Deltaic Plains	16	16

from 10 to 26 per cent. only. A comparison between the figures in columns 2 and 3 of Subsidiary Table I for the districts of the Central Basin and the Deltaic Plains respectively, emphasises the diversities in variation in the former and the uniformity of variation in the latter. In the districts of the former, the rate of increase for 1901 to 1911 is sometimes greater than, sometimes less than, and in one case is equal to, the rate of increase for 1891 to 1901. In the latter, the increases for the past ten years are invariably less than for the previous decade. The general increase from 9 per cent. to 13 per cent. in the former is the resultant of most diverse movements. The decline in the rate of increase of the latter from 28 to 16 per cent. is the resultant of a uniform tendency to decline experienced in every component district. The degree of decline is by no means uniform, but it has operated in the direction of greater uniformity, being greatest where the rate of increase was greatest, for the period 1891 to 1901, and least where the rate of increase was least for that period.

It is necessary to repeat the warning that the statistics for district emigration are not to be relied on. Although this division has not been the object of recent annexation yet the boundaries of every district have been changed, some of them repeatedly, within the past forty years. An emigrant of less than forty years old, born in the Dedayè Township would have his birth district changed from Rangoon to Thôngwa, from Thôngwa to Ma-ubin, and from Ma-ubin to Pyapôn by successive administrative changes. It is probable that he would record the name of the district as constituted at the date of his migration. The above is not an exceptional instance. It could be parallelled in almost every district of the division; and instances in which the locality of birth has come under three successive districts in the course of administrative changes could be indefinitely multiplied.

Although the districts of the eastern group of this natural division have the highest rates of increase, it is convenient to consider first the western group with a much smaller degree of variation. The higher rates of increase in the eastern group are largely the effect of the retarded increase in the western group and the latter naturally calls for prior discussion. The first two districts inviting discussion are Myaungmya and Pyapôn with reductions in their rates of increase of 38 and 42 per cent. respectively.

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Myaungmya ...	127	107	18	56
Hanthawaddy ...	177	156	14	20
Bassein ...	107	95	13	22
Pyapôn ...	119	105	13	55
Tharrawaddy ...	151	139	10	17
Henzada ...	187	169	10	11
Ma-ubin ...	185	169	10	30

In 1891 the areas occupied by these districts were for the most part deltaic jungle, islands of silt raised to a few inches above spring tide level, and covered with a dense growth of rapidly growing, soft-wooded trees and shrubs. Cultivation extended so rapidly in the early portion of the 1891-1901 decade, that administrative officers going to a locality after the lapse of a few months could scarcely recognise their bearings. Creeks with densely wooded banks showing no trace of human habitation, were, in the course of one or two seasons, transformed into regular waterways, with a daily launch service, with cultivation extending to the waters edge, and with teeming villages on their banks. So rapid were the extensions of cultivation, and the denudation of the forests, that it was necessary for the preservation of the valuable fisheries, then existing, to restrict the right to clear jungle within a hundred feet from the banks of a creek; and subsequently, in order to avert a fuel famine in a region, where a few years previously the country was one stretch of virgin jungle, it was necessary to create extensive forest reserves in the few areas still uninvaded by the immigrant cultivators. In 1901 over a third of the inhabitants of each of these two districts were recorded as immigrants from other districts, and though repeated changes of jurisdiction have introduced a large liability to error in these figures, they serve to illustrate roughly the magnitude of the invasion that was then taking place.

At the time of the census of 1901 these conditions were rapidly changing. The reservation of the fuel reserves cut down the area available for extension of cultivation to a large extent, and accelerated the rate of occupation of the remaining areas. At the present time there is but little culturable area in these districts available for extensions of cultivation. Columns 3, 4 and 5 of Subsidiary Table I of Chapter I of this report suggest that only 43 per cent. and 66 per cent. of the total culturable area of the Myaungmya and Pyapôn Districts respectively have been brought under cultivation, and that there are larger areas still available.

The term culturable is, however, extremely elastic. It includes practically all land that is not on a moderately steep hillside. An examination of the so-called culturable areas in the Myaungmya and Pyapôn Districts would disclose that many of them are liable to inundation by salt water, that others are included within the areas of reserved inland fisheries, and that others are not culturable without protection by embankments on a scale precluding any possibility of immediate cultivation. Whatever advantages they may have had in the past, with respect to the quality and extent of culturable waste land, have now disappeared. They are no longer the objective of the majority of immigrants from the north. The districts to the east of the delta area, at one time not considered comparable with the western delta districts as offering possibilities of extension of cultivation, now attract the bulk of the emigrants from Upper Burma.

Ma-ubin, Bassein and Tharrawaddy are three districts which developed earlier than Myaungmya and Pyapôn and consequently do not show such remarkable differences in their percentages of increase for the successive decades of 1891-1901 and 1901-1911. Henzada, the most densely populated district in Burma in 1901 and 1911, completed its development at a still earlier stage. It is enabled to support its population without the necessity of the safeguard of large emigration by the most complete protection from inundation by embankments enjoyed by any district in Burma. Its immigrant and emigrant populations are approximately equal to each other and they did not differ to any large degree in 1901. The variation of the population of the Hanthawaddy District is influenced largely by its situation, completely surrounding the City of Rangoon. So far as the rate of increase of its population is above the natural rate it is due not to extensions of cultivation but to the development of small towns and industries in the vicinity of the City of Rangoon. The oil refining industry has established itself in the Kyauktan Township with Syriam as its headquarters. Despite several extensions of the boundaries of the Rangoon Municipality to include the factory area on the Kanaungto creek, numerous rice mills exist within the Twante Township just beyond the existing municipal boundaries. Insein, the constructive centre of the Burma Railways, has adopted many suburban characteristics, and the stretch of country between Rangoon and Insein is becoming more and more a residential extension of Rangoon itself.

The three eastern districts of the Deltaic Plains are now tending to monopolise the immigrants coming southwards from Upper Burma. Although the percentage of increase for Pegu District is exceeded by that for Magwe and equalled by those for Yamèthin and Toungoo, the actual increase of population (89,549) is greater than that of any of the regular districts of the province. Its immigrants (132,430) number more than those of any other district except Rangoon. The diminution of its rate of increase from 43 per cent. for the previous decade to 26 per cent. for the period 1901-1911, and the cultivation of 83 per cent. of its available culturable area, indicate that it has approached its limits of rapid expansion, and that henceforth its increase will be approximate to the natural rate of 12 per cent. for the decade. Although Toungoo has a low density of population, its inhabitants numbering but 57 to the square mile, it is extremely doubtful if the amount of culturable area available for future occupation will afford much scope for a continued increase of population at the present rate. Only 15 per cent. of its total area is classed as culturable, and of this two-thirds has already been occupied. Thatôn with 60 per cent. of its area culturable and only about one-third of this already occupied would appear to afford greater possibilities for future expansion than any other district in the province.

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Pegu ...	97	79	26	43
Toungoo ...	57	45	26	32
Thatôn ...	85	68	21	29

A comparison of the figures for Toungoo and Thatôn afford a striking illustration of the doubtful nature of the migration statistics deduced from the record of birthplace. The natural increase of their populations must be approximately the same, and the marginal statement shows that their actual increases are not markedly different. Consequently, both must have been influenced by migration to a somewhat similar extent. The

—		Toungoo.	Thatôn.
Immigrants	1901 ...	37,122	41,432
	1911 ,,	85,904	40,021
Emigrants	1901 ...	16,729	8,250
	1911 ,,	16,607	16,449
Increase of population, 1901-1911.		71,761	73,465

increase of 48,782 immigrants in the Toungoo District, while the number of emigrants remained stationary, explains satisfactorily the large increase of population recorded. But in Thatôn the recorded tendencies of migration are exactly the reverse. The number of immigrants remained stationary and the emigrants increased by 8,199, both movements together suggesting a depression of the population below the natural rate of increase. An increase in the number of immigrants to one district and an increase in the number of emigrants from another district have had apparently almost identical effects on their respective populations. Here again, as in other instances quoted, the statistics of birth districts recorded are rendered unreliable by recent administrative changes in which both districts have been involved.

64. Variation of Population in the Northern Hill Districts.—It is impossible to introduce any degree of exactitude into the recorded rate of increase in the five Northern Hill Districts from 1891 to 1901. Attempts have been made to calculate the variation over identical areas but without much success. It is better to acknowledge frankly the impossibility of effecting an accurate comparison, than to attempt it, and to give under the guise of accuracy what probably would be incorrect results. For the years 1901 to 1911, a fair degree of accuracy can be claimed for the recorded populations of the Katha, Ruby Mines and the Upper Chindwin Districts and for their respective rates of increase. The high rates of increase for Bhamo and Myitkyina must be attributed to under-estimation of the population in 1901, the amount of immigration recorded not being sufficient to account for such exceptional increases as 36 and 25 per cent. The figures for the density of the population of these two districts must also be looked upon with suspicion. The areas of portions of these districts, as given, are mere estimates, nor is it certain that the census enumeration has yet exhaustively covered all the remote residential units in the Kachin Hill Tracts. No reliance whatever can be placed on the figures for migration as calculated from the birthplace statistics, in calculating the amount of variations. The diminution of the number of immigrants to the Myitkyina District from 35,885 in 1901 to 21,653 in 1911, and the increase of the number of emigrants from the Upper Chindwin District from 3,626 in 1901 to 21,210 in 1911 are both improbable and due to the incorrect record of birth districts in a region where administrative jurisdictions are in a state of flux.

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Bhamo ...	16	11	36	90
Myitkyina ...	8	4	25	32
Katha ...	28	25	12	95
Ruby Mines ...	18	16	10	157
Upper Chindwin ...	11	8	11	39
Northern Hill Districts.	15	12	17	70

65. Variation of Population in the Coast Districts.—There is a distinct line of cleavage between the rate of variation of the populations of the Arakan and Tenasserim portions of the districts in the natural division which has been termed the Coast Ranges. The variation in the Arakan districts ranges from 7 to 13 per cent.; that for the Tenasserim districts from 23 to 26 per cent. This difference is partly due to closer enumeration in the remote portions of the Tenasserim Districts, which even yet have not been brought within the scope of the synchronously enumerated area, and partly to the stimulus they have received from the commencement of the mining and rubber industries on a large scale within their limits. The District of Northern Arakan has indeterminate administrative boundaries and the variations of its population, 41 per cent. from 1891 to 1901 and 7 per cent. in 1901-1911, are to be accepted with hesitation. The increases of 10 per cent. for Akyab and Kyaukpyu and 13 per cent. for Sandoway may be accepted as genuine. There has been, according to the

District.	Density.		Increase per cent.	
	1911.	1901.	1901-1911.	1891-1901.
Akyab ...	103	94	10	16
Northern Arakan.	14	13	7	41
Kyaukpyu ...	42	38	10	3
Sandoway ...	27	24	13	16
Salween ...	17	14	23	20
Amherst ...	52	43	23	29
Tavoy ...	25	21	23	16
Mergui ...	11	9	26	20
Coast Ranges	38	33	16	17

statistics for birthplace, a marked decrease of immigration in all three districts and the economic advantages offered by these districts to cultivators from Chittagong is less than formerly. It is probable that the more stringent collection of capitation tax from temporary immigrants from beyond the border in the Akyab District, which has been a marked feature of its revenue administration in the past few years, is responsible for the decline in immigration from 83,115 in 1901 to 47,476 in 1911. The census would naturally be associated in the minds of the immigrants with the payment of the tax. The somewhat later date of the enumeration, the 10th March in 1911 as against the 1st March in 1901, would also tend to a diminution in the number of immigrants recorded, the extra period of ten days after harvest operations had been completed giving a larger time for the ebb of migration back to Chittagong to gather force. The figures for migration for the Tenasserim Districts are almost identical with those of 1901 and it is difficult to reconcile them with the large rates of increase recorded. It is almost certain that the birth districts of persons enumerated in the districts of Tavoy and Mergui but born beyond their limits have not been correctly recorded.

66. Variation of Population in the Specially Administered Territories.—These territories are, as their recorded densities of population demonstrate, extremely sparsely populated, and they present enumeration difficulties to such an extent that a synchronous census over any portion of their area has not been feasible. The high percentages of increase in the Chin Hills, the Pakôkku Hill Tracts, and in all portions of the Northern Shan States except the Hsipaw State, are largely due to improvements in enumeration, resulting from the more effective administrative control which has been effected in the interval between 1901 and 1911. Any allotment of the respective shares played by the natural increase of excess of births over deaths, by migration and by improvements in enumeration would be purely speculative. Over portions of the Northern Shan States, and throughout the Pakôkku Hill Tracts, census records of birth place were not taken. Nor are there any administrative records of births and deaths in any of these Specially Administered Territories. It is better to acknowledge the defects in the material available for a comparison, than to draw incorrect deductions from data with many possibilities of inaccuracy. The records for the Southern Shan States are more reliable than those for the remaining three territories, though a perusal of the entries in Provincial Table I suggests that in some respects they are not to be accepted without question.

Territory.	Density.		Increase per cent., 1901-1911.
	1911.	1901.	
Northern Shan States.	32	17	29
Southern Shan States.	22	19	10
Pakôkku Hill Tracts	7	5	30
Chin Hills ...	15	11	37
Specially Administered Territories.	23	18	22

67. General Conclusions.—A review of the conditions of the variation of population in Burma shows that the true rate of increase is masked by the two factors of successive extensions of census limits, and by a gradual progressive increase in the efficiency of enumeration. As to the first of these influences, the only period for which the census areas were identical at two succeeding enumerations was from 1872 to 1881, a period when the second disturbing factor was at its maximum. It is possible to isolate the increases due to extensions of area, and to correct the rate of increase deduced from a comparison of the total populations recorded. The effect of the corrections, and the corrected increase per cent. over identical areas for the dates of each comparison, are given in the marginal statement. But the effect of the increased efficiency of enumeration is far less easy to estimate. In so far as it is due to a change in methods, to the substitution of a synchronous for a non-synchronous record, or to the substitution of a non-synchronous record for an estimate, it may be isolated and corrected by the omission of the area in which the change was effected.

Disturbance in rate of variation due to extension of census area.		
Period.	Absolute increase per cent.	Corrected increase per cent.
1871-81 ...	36	36
1881-91 ...	107	25
1891-1901 ...	36	17·5
1901-1911 ...	15·5	14·4
1872-1911 ...	341	135

There is however another class of improvement of the enumeration, more gradual and more subtle in its operation and more difficult to detect and estimate. It is due to the gradual improvement in the administrative control of the country, to an improved village administration, to improved communications, to improved knowledge of remote areas, and to improvements in the class of persons available for the supervision of census operations and for the actual enumeration of the people. It has been suggested in the course of the discussion that the amount of the recorded variation due to improved efficiency of enumeration was 2·8 per cent. for the period 1891-1901, and one per cent. for the period 1901-1911. It has also been suggested that finality in this respect has not been attained, and that there is still a liability to error from under-enumeration.

Considering the increase for the past decade only, the ostensible increase of 15·5 per cent. is reduced to 14·4 per cent. by the exclusion of additional areas, and this again is reduced to a percentage of between 13·2 and 13·4 by excluding the effect of improved enumeration. Assuming the actual variation to be an increase of 13·2 per cent., immigration is responsible for something over 1·12 per cent. and the natural increase of population for about 12 per cent. or a little over. In distributing the variations causing this resultant over the province, the analysis has been confined to district areas only, the absolute and proportional variations for townships being obscured by numerous and fundamental changes in their boundaries, defying all attempts to calculate corrected variations over identical areas. Considering variations for district areas only, over the 41 separate districts and territories (or 42 if the City of Mandalay be separately treated) there are 12 in which the increase of population is considerably above the natural rate of increase, 21 in which it is not for removed from the natural rate, and 4 in which it is either markedly below the natural rate, or stationary, or even in a state of decline. There remain two districts (Bhamo and Myitkyina) and three territories (the Northern Shan States, the Chin Hills and the Pakôkku Hill Tracts) in which the real rate of variation is obscured by improvements and changes in the method of enumeration. The twelve districts of more than normal rate of increase are divided into three sets of four districts each, in the natural divisions of the Central Basin, the Deltaic Plains and the Coast Ranges respectively. The three districts and one city of less than normal rate of increase are all found in the Central Basin. The range of variation has thus been greatest in the Central Basin. Magwe has progressed because of its mineral wealth, Yamèthin and Shwebo because of improvements in communications and irrigation, combined with a cessation of the attraction exercised by the western districts of the Deltaic Plains, and the high rate of increase for Myingyan is due to the figures for 1901 being diminished by a large temporary emigration. Prome and Thayetmyo still continue to send emigrants to the delta districts. The stationary nature of the population of Kyauksè is difficult to explain, while the decline in the City of Mandalay is due to the numerous causes explained in the previous chapter. The general result of this wide range of variations in the districts of the Central Basin has been an increase of 13 per cent., which is slightly over the natural rate of increase. The advance in the rate of increase from 9 per cent. between 1891 and 1901 to 13 per cent. from 1901 to 1911 indicates that the advantages of the deltaic districts as fields for agricultural expansion over the central portions of Upper Burma have declined considerably, and that though internal migration in the Central Basin is still considerable, external migration has declined.

Area showing abnormal rates of variation.

Natural Division.	District or City.	Variation per cent., 1901-1911.
Central Basin ...	Magwe ...	28
	Yamèthin ...	26
	Shwebo ...	24
	Myingyan ..	23
Deltaic Plains ...	Pegu ...	26
	Toungoo ...	26
	Thatôn ...	21
	Rangoon ...	20
Coast Ranges ...	Salween ...	23
	Amherst ...	23
	Tavoy ...	23
	Mergui ...	26
Central Basin ...	Prome ...	4
	Thayetmyo ...	4
	Kyauksè ...	0
	City of Mandalay.	—25

In the Deltaic Plains, immigration has set in towards the eastern districts and almost ceased as a factor in the increase of population in the western districts.

Conditions are much more uniform than in the Central Basin There are no districts which cannot absorb their natural increase, and consequently the resultant rate of progress is high, there being no emigration to neutralise the effect of the immigration into the eastern districts. But the conditions which induced a general increase of 28 per cent. in the interval between 1891 and 1901 have vanished and future rates of increase will probably approximate even more closely to the natural rate. The high rates of increase in the Tenasserim districts of the Coast Ranges are partly due to improved enumeration and partly to new developments of the mining and rubber industries.

An examination of the density of the population indicates that there is no general tendency to a large increase of population in the areas of low density. Such increases as are recorded in these areas in as far as they are beyond the natural rate of increase, are due to improvements in enumeration rather than to genuine increases by migration. There is a tendency to move from areas of low density into areas of moderate density. Measuring by township densities a density of 150 persons per square mile is, under the present conditions of the province, a critical limit. In the Central Basin, once this limit is reached, there is a tendency to emigrate and the increase of the population falls below the natural rate of increase. In the deltaic districts, on passing the limit of 150 persons per square mile there is a cessation of immigration and population thenceforward tends to approximate to the natural rate of increase. The principal factor in fixing a limit to the rate of increase is the amount of waste land available for extensions of cultivation, by the operations of individual cultivators, or of small groups of cultivators acting in co-operation. Such lands are not so extensive as the figures in Columns 3, 4 and 5 of Subsidiary Table I of Chapter I of this report would indicate. In many districts the only possibilities of extension of cultivation are afforded by areas giving a gradually diminishing return to a progressively increasing amount of labour and expense. The era of almost automatic and unconscious expansion by individual agency gives signs of its approaching end. It may seem premature to suggest that the attainment of a density of population of 53 persons per square mile for the province, or 65 per square mile for Burma proper, are indications of a change in the nature of future rates of increase. But these figures serve to disguise the density of population in certain portions of the province. In the two most important divisions, the densities of population have risen by substantial additions to 93 and 124 persons per square mile. The number of districts capable of absorbing large numbers of immigrants is diminishing, and the number for which emigration would be a safeguard from undue congestion is increasing. The changed conditions will probably result in the introduction of new industries and more varied methods of agriculture, and in the entry of the Burmese population into urban occupations to a greater extent than formerly. The period of an almost single-minded devotion of the national energies to an agricultural extension in one direction has probably ceased, and a period in which the Burmese race, forced by the gradual pressure of an increasing population on the means of subsistence, will compete for a leading part in all the various branches of the life of the province is foreshadowed.

SUBSIDIARY TABLE I.—*Variation in Relation to Density since 1872.*

District and Natural Division.	Percentage of Variation. Increase (+) Decrease (−).				Net Variation per cent., 1872 to 1911.	Mean Density per square mile.				
	1901 to 1911.	1891 to 1901.	1881 to 1891.	1872 to 1881.		1911.	1901.	1891.	1881.	1872.
1	2	3	4	5	6	7	8	9	10	11
PROVINCE	...	...	...	...	...	53	45	47	49	36
I.—Corrected increase over identical areas.	+14·4	+17·5	+ 25	+ 36	+ 135	...	...	...	...	...
II.—Absolute increase ...	+15·5	+ 36	+ 107	+ 36	+ 341	...	...	...	...	...
Burma	+ 15	+ 18	...	...	...	65	56	47	49	36
I.—Central Basin	+ 13	+ 9	...	...	...	93	82	75	...	...
Prome	+ 4	− 1	+ 12	+ 17	+ 35	130	125	127	113	96
Thayetmyo	+ 4	− 4	+ 9	+ 8	+ 58	52	50	53	36	33
Pakôkku	+ 15	+ 14	Not enumerated prior to 1891.			66	58	50	...	...
Minbu	+ 13	+ 8				80	71	66	...	...
Magwe	+ 28	+ 13				96	74	66	...	...
Mandalay	− 7	− 2				161	173	177	...	...
Shwebo	+ 24	+ 24				62	50	40	...	...
Sagaing	+ 12	+ 15				171	152	132	...	...
Lower Chindwin ...	+ 14	+ 18				91	79	67	...	...
Kyauksè	+ 0	+ 12				111	111	99	...	...
Meiktila	+ 11	+ 16				128	116	100	...	...
Yamèthin	+ 26	+ 18				72	57	49	...	...
Myingyan	+ 23	+ 1				142	116	114	...	...
II.—Deltaic Plains	+ 16	+ 28	+ 28	+ 48	+ 180	124	108	84	66	45
Rangoon	+ 20	+ 35	+ 36	+ 36	+ 197	10,476	8,765	6,503	4,792	3,527
Hanthawaddy... ...	+ 14	+ 20	+ 33	+ 58	+ 188	177	156	130	97	61
Tharrawaddy	+ 10	+ 17	+ 25	+ 59	+ 153	151	139	118	95	60
Pegu	+ 26	+ 43	+ 29	+ 67	+ 287	97	77	54	42	25
Bassein	+ 13	+ 22	+ 20	+ 32	+ 118	107	95	78	65	49
Henzada	+ 10	+ 11	+ 20	+ 42	+ 107	187	170	154	128	90
Myaungmya	+ 18	+ 56	+ 73	+ 85	+ 489	127	107	69	40	22
Ma-ubin	+ 10	+ 30	+ 23	+ 39	+ 145	185	169	130	105	76
Pyapôn	+ 13	+ 55	+ 84	+ 99	+ 543	119	105	68	37	19
Thatôn	+ 21	+ 29	+ 16	+ 39	+ 153	85	70	54	47	34
Toungoo	+ 26	+ 32	+ 11	+ 39	+ 157	57	45	34	31	22
III.—Northern Hill Districts	+ 17	+ 70	...	...	...	16	12	7	...	...
Bhamo...	+ 36	+ 90	Not enumerated prior to 1891.			16	11	5	...	...
Myitkyina	+ 25	+ 32				8	4	5	...	...
Katha	+ 12	+ 95				28	25	10	...	...
Ruby Mines	+ 10	+157				18	16	13	...	...
Upper Chindwin ...	+ 11	+ 39				11	8	4	...	...
IV.—Coast Ranges	+ 16	+ 17	+ 18	+ 23	+ 98	38	33	27	24	19
Akyab	+ 10	+ 16	+ 16	+ 30	+ 92	103	94	81	70	54
Northern Arakan ...	+ 7	+ 41	+ 1	+ 65	+ 153	15	13	10	10	6
Kyaukpyu	+ 10	+ 3	+ 10	+ 4	+ 28	42	38	37	34	33
Sandoway	+ 13	+ 16	+ 20	+ 18	+ 86	27	24	21	17	15
Salween...	+ 23	+ 20	+ 5	+ 15	+ 78	17	14	12	11	10
Amherst	+ 23	+ 29	+ 29	+ 39	+ 183	52	43	33	26	18
Tavoy	+ 23	+ 16	+ 12	+ 18	+ 88	25	21	18	16	14
Mergui	+ 26	+ 20	+ 30	+ 20	+ 136	11	9	7	6	5
V.—Specially Administered Territories.	+ 22	...	...	...	...	23	18	...	...	...
Northern Shan States...	+ 29	...	Not enumerated prior to 1891.			32	17	...	...	...
Southern Shan States...	+ 10					22	19	..	...	...
Pakôkku Hill Tracts ...	+ 30					7	5	...	...	...
Chin Hills	+ 37					15	11	...	...	...

SUBSIDIARY TABLE II.—*Variation in Natural Population.*

District and Natural Division.	Population in 1911.				Population in 1901.				Variation per cent. (1901-1911) in natural population Increase (+) Decrease(−).
	Actual population.	Immigrants.	Emigrants.	Natural population.	Actual population.	Immigrants.	Emigrants.	Natural population.	
1	2	3	4	5	6	7	8	9	10
Province	12,115,217	590,965	10,902	11,535,154	10,490,624	475,489	9,460	10,024,595	+ 15
I.—Central Basin	*4,113,894*	*106,135*	*345,912*	*4,353,671*	*3,647,330*	*78,304*	*417,622*	*3,986,648*	+ *10*
Prome	378,871	22,762	43,276	399,385	365,804	25,616	48,179	388,367	+ 3
Thayetmyo	248,275	8,230	34,529	274,574	239,706	15,751	40,781	264,736	+ 4
Pakôkku	409,909	6,393	35,680	439,196	357,632	11,529	41,882	387,985	+ 13
Minbu	263,939	15,927	32,289	280,301	234,271	18,411	49,769	265,629	+ 6
Magwe	316,909	17,112	31,233	331,030	246,708	7,749	47,891	286,850	+ 15
Mandalay	340,770	41,870	59,295	358,195	366,507	58,419	76,326	384,414	− 7
Shwebo	356,363	12,225	37,868	382,006	286,891	9,036	53,175	331,030	+ 15
Sagaing	312,111	8,424	31,147	334,834	277,769	3,990	38,981	312,760	+ 7
Lower Chindwin ...	316,175	22,968	31,809	325,016	276,383	4,291	45,705	317,797	+ 2
Kyauksè	141,426	12,918	4,390	132,898	141,253	17,451	7,192	130,994	+ 1
Meiktila	279,822	9,589	44,203	314,436	252,305	9,008	36,243	279,540	+ 12
Yamèthin	307,419	30,736	23,766	300,449	243,197	27,696	7,666	223,167	+ 35
Myingyan	441,905	9,715	49,161	481,351	358,904	9,150	63,625	413,379	+ 16
II.—Deltaic Plains ...	*4,332,402*	*743,246*	*29,080*	*3,618,286*	*3,741,328*	*718,319*	*26,717*	*3,049,726*	+ *19*
Rangoon	293,316	201,870	41,033	132,479	245,430	170,301	28,570	103,699	+ 28
Hanthawaddy	539,109	128,824	30,816	441,101	474,262	127,107	33,777	380,932	+ 16
Tharrawaddy	433,320	54,627	27,821	406,514	395,570	72,561	28,860	351,869	+ 16
Pegu	429,121	132,430	15,337	312,028	339,572	110,712	16,502	245,362	+ 27
Bassein	440,988	41,322	25,190	424,856	391,427	45,614	31,167	376,980	+ 13
Henzada	532,357	42,271	41,926	532,012	484,558	51,591	45,480	478,447	+ 11
Myaungmya	334,852	78,122	2,327	259,057	282,932	110,843	9,997	182,086	+ 42
Ma-ubin	305,073	50,030	30,627	285,670	278,309	71,769	6,473	213,013	+ 34
Pyapôn	256,215	112,794	5,866	149,287	226,443	86,123	7,768	148,088	+ 1
Thatôn	416,975	40,021	16,499	393,453	343,510	41,432	8,250	310,328	+ 27
Toungoo	351,076	85,904	16,607	281,779	279,315	37,122	16,729	258,922	+ 9
III.—Northern Hill Districts	*662,821*	*71,374*	*22,269*	*613,716*	*565,382*	*83,847*	*7,005*	*488,540*	+ *26*
Bhamo	107,811	21,334	3,063	89,540	79,515	15,310	3,162	67,369	+ 33
Myitkyina	85,577	21,653	912	64,836	68,527	35,885	1,652	34,294	+ 89
Katha	198,193	11,041	9,249	196,401	176,223	11,779	8,450	172,894	+ 14
Ruby Mines	100,618	19,906	1,842	82,554	87,694	23,471	2,223	66,446	+ 24
Upper Chindwin ...	170,622	11,447	21,210	180,385	153,423	9,512	3,626	147,537	+ 22
IV.—Coast Ranges ...	*1,501,139*	*97,973*	*27,672*	*1,430,838*	*1,298,835*	*129,015*	*30,150*	*1,199,970*	+ *19*
Akyab	529,943	47,476	1,479	483,946	481,666	83,115	6,879	405,430	+ 19
Northern Arakan ...	22,234	1,020	59	21,273	20,682	761	4,409	24,330	− 13
Kyaukpyu	184,916	2,817	6,188	188,287	168,827	7,971	13,566	174,422	+ 8
Sandoway	102,803	2,750	3,987	104,040	90,927	9,429	3,724	85,222	+ 22
Salween	46,608	1,991	466	45,083	37,837	3,860	663	34,640	+ 30
Amherst	367,918	39,891	18,250	346,277	300,173	40,698	18,204	277,679	+ 25
Tavoy	135,293	2,607	4,475	137,161	109,979	1,596	6,087	114,470	+ 19
Mergui	111,424	7,664	1,011	104,771	88,744	6,825	1,858	83,777	+ 25
V.—Specially Administered Territories.	*1,504,961*	*29,980*	*32,480*	*1,507,461*	*1,287,749*	...	...	...	...
Northern Shan States	458,952	17,489	11,287	452,750	321,090	7,688	29,854	1,157,082	+ 13
Southern Shan States	900,202	11,118	20,938	910,022	816,354	2,528			
Pakôkku Hill Tracts ...	26,251	181	21	26,091	13,116	...	...	...	...
Chin Hills	119,556	1,548	590	118,598	87,189	1,819	979	86,349	+ 37

SUBSIDIARY TABLE III.—*Comparison with Vital Statistics.*

District and Natural Division.	In 1901-1910. Total number of		Number per cent. of population of 1901 of		Excess (+) or deficiency (−) of births over deaths.	Increase (+) or decrease (−) of population of 1911 compared with 1901.	
	Births.	Deaths.	Births.	Deaths.		Natural population.	Actual population.
1	2	3	4	5	6	7	8
Province (21 Districts only)	1,853,296	1,393,731	33·17	24·95	+ 459,565	+ 812,848	+ 804,691
I.—Central Basin (2 Districts only).	*218,599*	*167,240*	*36·10*	*27·62*	+ *51,359*	+ *20,856*	+ *21,636*
Prome	129,425	100,891	35·38	27·58	+ 28,534	+ 11,018	+ 13,067
Thayetmyo	89,174	66,349	37·20	27·68	+ 22,825	+ 9,838	+ 8,569
Pakôkku	Record of births in rural areas was not commenced till 1907.	Record of deaths in rural areas was not commenced till 1902.	...	...	...	+ 51,211	+ 52,277
Minbu			...	...	...	+ 14,672	+ 29,668
Magwe			...	...	...	+ 44,180	+ 70,201
Mandalay			...	...	...	− 26,219	− 25,737
Shwebo			...	...	...	+ 50,976	+ 69,472
Sagaing			...	...	...	+ 22,074	+ 34,342
Lower Chindwin ..			...	...	...	+ 7,219	+ 39,792
Kyauksè			...	...	...	+ 1,904	+ 173
Meiktila			...	...	...	+ 34,896	+ 27,517
Yamèthin			...	...	...	+ 77,282	+ 64,222
Myingyan			...	...	...	+ 67,972	+ 83,001
II.—Deltaic Plains ...	*1,229,545*	*952,512*	*32·86*	*25·46*	+ *277,033*	+ *668,510*	+ *691,074*
Deltaic Plains (excluding Rangoon).	1,186,341	855,563	33·83	24·40	+ 330,778	+ 539,730	+ 543,188
Rangoon	43,204	96,949	18·39	41·28	− 53,745	+ 28,780	+ 47,886
Hanthawaddy ...	157,770	117,953	32·54	24·33	+ 39,817	+ 60,169	+ 64,847
Tharrawaddy ...	157,944	109,042	39·93	27·57	+ 48,902	+ 54,645	+ 37,750
Pegu	127,309	98,052	37·49	28·88	+ 29,257	+ 66,666	+ 89,549
Bassein	121,276	88,243	30·98	22·54	+ 33,033	+ 47,876	+ 49,561
Henzada	190,155	132,782	39·24	27·40	+ 57,373	+ 53,565	+ 47,799
Myaungmya ..	250,094	183,904	31·75	23·35	+ 66,190	+ 150,827	+ 51,920
Ma-ubin							+ 26,764
Pyapôn							+ 29,772
Thatôn	105,884	65,184	30·82	18·98	+ 40,700	+ 83,125	+ 73,465
Toungoo	75,909	60,403	27·17	21·63	+ 15,506	+ 22,857	+ 71,701
III.—Northern Hill Districts	...	...	...	...	...	+ *125,176*	+ *97,439*
Bhamo	No records of births compiled.	No records of deaths compiled.	...	...	...	+ 22,171	+ 28,296
Myitkyina			...	...	...	+ 30,542	+ 17,050
Katha			...	...	...	+ 23,507	+ 21,970
Ruby Mines ...			...	...	...	+ 16,108	+ 12,924
Upper Chindwin ...			...	...	...	+ 32,848	+ 17,199
IV.—Coast Ranges ...	*405,152*	*273,979*	*32·67*	*22·09*	+ *131,173*	+ *228,482*	+ *191,981*
Akyab	137,716	107,000	28·59	22·21	+ 30,716	+ 78,516	+ 48,277
Northern Arakan ...	No Records.		...	...	...	− 3,057	+ 1,552
Kyaukpyu	54,029	38,469	32·00	22·79	+ 15,560	+ 13,865	+ 16,089
Sandoway	35,747	22,773	39·31	25·05	+ 12,974	+ 18,818	+ 11,876
Salween	No Records.		...	...	...	+ 10,443	+ 8,771
Amherst	97,204	62,875	32·38	20·95	+ 34,329	+ 68,598	+ 67,745
Tavoy	45,430	22,245	41·31	20·23	+ 23,185	+ 22,691	+ 25,314
Mergui	35,026	20,617	39·47	23·23	+ 14,409	+ 20,994	+ 22,680
V.—Specially Administered Territories.	...	...	...	...	...	+ *237,939*	+ *267,212*
Northern Shan States	No records of births compiled.	No records of deaths compiled.	...	...	...	+ 205,690	+ 137,862
Southern Shan States			...	...	...		+ 83,848
Pakôkku Hill Tracts			...	...	...	..	+ 13,135
Chin Hills			...	...	...	+ 32,249	+ 32,367

SUBSIDIARY TABLE IV.—*Variation by Townships and States classified according to density.*

(a) Actual Variation.

Natural Division.	Decade.	Variation in Townships and States with a population per square mile at commencement of decade of								
		Under 50.	50-100.	100-150.	150-300.	300-450.	450-600.	600-750.	750-1,000.	1,000 and over.
1	2	3	4	5	6	7	8	9	10	11
Province	...	563,840	291,163	361,955	368,612	15,367	137	2,112	...	12,284
Burma Proper ...	...	321,162	272,830	360,949	366,837	15,367	137	2,112	...	12,284
I.—Central Basin ...	...	54,242	149,440	172,210	136,516	...	137	...	...	45,981
II.—Deltaic Plains ...	...	69,154	92,578	172,791	193,298	15,367	...	...	...	47,886
III.—Northern Hill Districts.	...	85,179	6,557	...	...	...	...	...	...	...
IV.—Coast Ranges ...	...	112,587	24,255	15,948	37,023	...	...	2,112	...	10,379
V.—Specially Administered Territories.	...	242,678	18,333	1,006	1,775	...	...	...	...	...

(b) Proportional Variation.

Natural Division.	Decade.	Percentage of variation in Townships and States with a population per square mile at commencement of decade of								
		Under 50.	50-100.	100-150.	150-300.	300-450.	450-600.	600-750.	750-1000.	1000 and over.
1	2	3	4	5	6	7	8	9	10	11
Province	...	21	16	19	11	7	...	4	...	2
Burma Proper	...	19	17	19	11	7	...	4	...	2
I.—Central Basin ...	...	13	19	20	10	...		...	...	22
II.—Deltaic Plains ...	...	32	21	18	12	7	...	...	...	20
III.—Northern Hill Districts.	...	17	15	...	...	...	...	...	...	...
IV.—Coast Ranges ...	...	22	7	19	16	...	...	4	...	19
V.—Specially Administered Territories.	...	24	10	5	12	...	...	...	...	...

CHAPTER III.

Birth-place.

GENERAL SURVEY.

68. Statistics of Migration.—One aspect of the statistics of birth-place contained in Imperial Table XI, that concerning the ascertainment of the natural growth of different parts of the province, has already been considered with reference to the variation of population in Chapter II. Another aspect, that concerning the migrations of the people from one part of Burma to another, and between Burma and other countries, still remains for consideration. The five subsidiary tables printed at the end of this chapter have been compiled to exhibit in a concise form the general course of migration from and into each district and natural division of the province, and between Burma and the remaining Indian provinces. In order to simplify Subsidiary Tables I and II, showing the actual immigration and emigration for districts and natural divisions, the last three figures of each entry have been omitted, and the statements show the number of thousands, and not the number of individuals, included in each several category. Subsidiary Table III reduces these figures to proportions, and in order to test the nature of the migrations introduces figures for the sex proportions of immigrants and emigrants. Subsidiary Table IV compares the migrations between natural divisions as shown by the figures for birth-place in the census returns for 1901 and 1911, and the fifth subsidiary table gives the movements of population between Burma and each Indian province.

The reliability of the statistics for birth-place has been frequently questioned in the discussion on the variation of the population in Chapter II of this volume. The entry, in column 12 of the enumeration schedule, of the birth-place of a person born in a district other than the district of enumeration, is utilised in a double sense. Such a person is classed as an immigrant to the district of enumeration and as an emigrant from the district of birth. For instance, a person born in Prome and enumerated in Henzada, is counted as an emigrant from Prome and as an immigrant into Henzada. Such a method would give both valuable and reliable results in a province with a comparative fixity of administrative areas. But in Burma there has been no such fixity within the lifetime of the present generation. In Upper Burma, administrative districts were not formed till the period from 1886 to 1889, and in the interval there have been numerous major and minor readjustments of district boundaries. In Lower Burma out of the eleven districts now constituting the natural division of the Deltaic Plains, only two were in existence at the commencement of the census era in 1872, and the boundaries of these two at that period were widely different from their present boundaries. To repeat an illustration already given, a resident in a portion of the Dedayè Township, who had never left his native village might return with truth that he was born in any one of the Rangoon, Thôngwa, Ma-ubin or the Pyapôn districts, his village having successively been included in these administrative units. If he were recorded as being born within any of the first three he would go to swell the immigration and emigration returns, though by hypothesis he had never even left his native village. It would be possible to give numerous instances in which two alternatives to the present district in which the place of birth is situated could with equal truth be returned. But the possibilities of error are multiplied in the case of emigrants who have actually left the locality of their birth. The largest classes of emigrants, young men leaving home to make a livelihood in a distant part of the province, or the younger members of families emigrating for a similar reason, would not in a large number of instances have a sufficiently exact knowledge of the recently formed district area in which they were born, to be able to give its name correctly. The village of birth might be remembered, and the name of the township or of the nearest large town in the locality, and with the aid of these materials the census enumerator would enter to the best of his ability the birth district of the person enumerated. Lapse of time would increase the liability to error due to subsequent changes. The district might be correctly recorded with reference to the

date of the birth of the immigrant, or to the date of his transfer to the district of enumeration, but this would not necessarily represent the correct birth-district in the present scheme of administrative units. It is consequently necessary to look with a certain amount of suspicion on the deduced statistics for migration for individual districts. But for the natural divisions of the province the figures can be accepted with a fair degree of certainty. They are broad areas in which the uncertainties as to the exact district of birth would have but little effect. The probability of an entry giving a district in the wrong natural division is much more remote than the probability of an incorrect district being returned. Internal migration will therefore be considered rather with reference to the broad movements from one portion of the province to another than with reference to inter-district migrations.

69. Types of Migration.—Migration is not a phenomenon of uniform type. It varies from the temporary casual visit to a neighbouring village, to a permanent removal to a distant country entailing a complete break of association with the country of birth. Though there are an infinite number of gradations between these two extremes, for practical purposes they may be reduced to five ; casual, temporary, periodic, semi-permanent and permanent.

These may be distinguished as follows :—

(1) *Casual.*—The minor movements between adjacent villages.

(2) *Temporary.*—Due to journeys on business, visits to places of pilgrimage and pagoda festivals, and the temporary demand for labour when new roads and railways are under construction.

(3) *Periodic.*—Such as the annual migration which takes place in different tracts at harvest time, and the influx of population into towns having seasonal industries.

(4) *Semi-permanent.*—When the natives of one place reside and earn their living in another, but retain their connection with their own homes, where they leave their families and to which they return in their old age and at more or less regular intervals in the meantime.

(5) *Permanent.*—Where overcrowding drives people away, or the superior attractions of some other locality induce people to settle there.

These classes of migration though of distinct types, fade into each other with broad, vague and ill-defined boundaries. On the borderland of each are to be found numerous examples which would present difficulties of classification. Such difficulties are however always present in reducing the complex actions of human life to absolute classes or figures. Marginal and doubtful cases are generally to be found introducing an element of uncertainty and hesitation into the precision which is assumed by the presentation of facts by means of statistics.

70. Casual, Temporary and Periodic Migration.—The records of birth-place do not permit the numbers of persons born outside the districts of enumeration to be classified according as they fall within one or other of the five main types of migration. As to the first type, casual migration does not affect the returns unless it has taken place between two adjacent villages on opposite sides of a district border. Temporary migration except at the date of the census is also unrecorded, but such migration is at its maximum in Burma during March, the month in which the census was taken. By that time the main crop of the province has been harvested and the operations of transport are in full swing. The price of the crops has been paid, travelling peddlers are traversing the district with wares for disposal, and villagers are visiting the nearest towns to lay in a stock of general utilities for the coming year. The climate, midway between the cold and hot seasons is most propitious for pagoda festivals and for dramatic entertainments. Settled weather, the cessation of agricultural operations and the possession of the proceeds resulting from the sale of the crops, form a unique combination favourable for extensive travelling. There are more persons temporarily absent from their homes on the date of the census than at any other period of the year. But unless their journeys extend beyond the limits of the district in which they were born they do not affect the record of the enumeration by birth-place. As for periodic or seasonal migrations there are three distinct classes of such migrations in Burma. The first is the seasonal movement from Upper Burma to assist in the cultivation of the crops in Lower Burma. It varies in intensity from year to year, falling after a good season in Upper Burma almost to zero, rising after a shortage in Upper Burma to large dimensions. It is at its maximum some time before the date of the census. In 1911 this seasonal

migration affected the census records to a smaller degree than in 1901. The Upper Burma crop of 1910 was a good one and high prices were realised. The total number of immigrants to Lower Burma was therefore less, and the later date of the census (10 days later than in 1901) gave an opportunity for many of them to return to their homes before their enumeration was effected. There is also a tendency, at present not very widespread, but gradually growing, for the landholder in Lower Burma to engage organised travelling bands of Indian coolies to carry out his requirements for agricultural assistance, rather than to depend on the uncertain, spasmodic and unorganised labour of individual immigrants from Upper Burma. The second class of seasonal migration is that of coolies from Southern India to assist in the milling and export of the paddy crop of the province. This is at its height at the date of the census. A third seasonal migration is the annual incursion of agricultural labourers from Chittagong into the districts of the Arakan Division. This is somewhat similar to the annual migration from Upper to Lower Burma and back, being equally variable in its operation.

71. Semi-permanent and Permanent Migration.—Midway between periodic and absolute, or permanent, migration, is a type including migration of a semi-permanent nature, in which although there is no periodic return to the original home, the emigrant intends to depart for a limited period only. His family is usually, though not invariably, left behind and he makes occasional returns at irregular intervals and otherwise retains his interest and connection in the locality of his birth. A large portion of the immigration to Burma from Bengal and Upper India is of this nature, and the sojourn of the European community in the province also belongs to the semi-permanent type of migration. There is very little of this type of migration among the indigenous inhabitants of Burma, though a series of bad seasons may sometimes force a portion of the seasonal migration from Upper Burma to be prolonged for several years and to assume a semi-permanent character. The tendency to the utilisation of Indian coolie labour in agricultural operations in Lower Burma is also transforming the nature of a portion of the seasonal migration from India and making it semi-permanent. Coolies who at one time came to Rangoon merely for the rice milling season and then returned to their country, now manage to find work in the districts of Burma near Rangoon for the greater portion of the year. Organised in regular bands they travel from village to village performing in succession the operations of ploughing, transplanting and reaping for the larger landholders, then returning to Rangoon in time for the milling season from January to May. It is possible by this method to keep in almost constant occupation for the whole year. This transformation of seasonal into semi-permanent migration has not yet progressed very far. It is gaining ground because it relieves the landholder of any uncertainty as to the supply of labour he requires, and is much less trouble to him than the employment of individual Burmans for the full agricultural season. It is reported however that it leads to much less efficient methods of cultivation and to smaller outturns and profits. When this is thoroughly realised by the landholders as a body, the tendency to substitute Indian for indigenous labour in agricultural operations may be checked.

Permanent migration in Burma is of the most varied character. Its most important manifestation is the slow gradual instinctive movement southwards which reaches back to prehistoric times. It is probable that its force was never greater than during the latter half of the last century when the empty wastes of the deltaic districts were being colonised. The stimulus given by the occupation of these vacant areas was felt beyond the sphere of the districts which actually supplied the colonists. The vacant places of the emigrants from the Upper Burma Districts who had proceeded to the delta invited a movement from still further north, and this in its turn intensified the attraction of the tribes on the northern frontier of the province to the more settled districts. This stimulation of a movement of age-long duration to excessive intensity has now been succeeded by a reaction, and economic forces are tending to retard rather than to accelerate the movement southwards. A permanent movement of a contrary tendency is the spread of immigrant natives of India northwards from Rangoon dispersing over the towns and larger villages of the province. The immigration of the Chinese, very largely permanent in its character, operates in both directions according as it originates overland or by sea. The movement of the Chinese from Yünnan is similar in its operation to the southern movement of the tribes on the northern frontier. The dispersal of the Chinese who arrive by sea

proceeds in the same directions and in the same manner as the dispersal of the Indian immigrants. The opportunity for the permanent settlement of large numbers of Indians and Chinese has been given by the concentration of the activities of the indigenous population on the development of the agricultural possibilities of the country. The Indian and Chinese emigrant has entered in response to the demand for labour in the transport, distributive and special urban industries which the Burmese and other indigenous races for the time being failed to supply.

72. Method adopted for classifying Migration.—In default of the possibility of obtaining a complete record at the date of the census of the five main types of migration, or even, had such a complete record been obtained, of showing the respective amounts of migration under each type, the statistics of birth-place have been analysed according as the place of birth was in the district of enumeration, contiguous to it, or a non-contiguous district of the province or of India, or beyond India. The results are embodied in Subsidiary Table I. Subsidiary Table II performs the contrary operation, analysing the birth-place statistics according as the place of enumeration was in the district of birth, or a contiguous or non-contiguous district of the province. The second table was not carried on to show emigration from each district to countries beyond the province, partly because the numbers are too insignificant to be included in a statement compiled by thousands instead of by individuals, and partly because the place of birth given by emigrants from Burma was in a large number of instances of a general or indeterminate nature, such as Upper or Lower Burma, and the amount of emigration recorded from each district was therefore not a reliable indication of its true amount. It is important to notice that in Subsidiary Table I and II the entries against each natural division are not necessarily the totals of the entries for each district in that division. A person may be born outside the district of record but within the same natural division in which he was recorded. He would be an emigrant and an immigrant so far as his birth and enumeration districts were concerned, but would be neither with respect to his natural division. Moreover a district may be contiguous to the borders of a natural division without being contiguous to several of the districts in that natural division. There is therefore no correspondence between the figures for individual districts and the composite figures for natural divisions. This distinction between migration calculated with respect to the broad areas of natural divisions and with respect to narrow district boundaries is indicated in Subsidiary Table III. In this table, for the divisional areas, the proportional migration is given for both the possible meanings of the term. The upper figures represent the proportional migration if each district is in turn considered the area from which migration is determined; the lower figures represent the same if each natural division as a whole area is taken as the basis of calculation.

Omitting the 59,006 persons whose birth-places were not recorded, the percentage of the remaining population classified according as their birth districts fall into six main categories is given in the marginal statement. Persons enumerated in the district of their birth amounted to 88·3 per cent. of the total population. Of the remaining 11·7 per cent., internal migration was responsible for 6·8 per cent., immigration from India for 4·1 per cent., and immigration from beyond the limits of India for the remaining ·8 per cent. of the population. It is extremely doubtful if the distinction between migration from a contiguous district and that from a non-contiguous district has any valid meaning in Burma. It does not correspond with any of the distinctions between the various types of migration. It is nearly as probable that migration to a contiguous district should be permanent as that it should be temporary or periodic, and the most marked form of periodic migration is that taking place between the non-contiguous districts of the Central Basin and the Deltaic Plains when labourers from the former division come to the latter to assist in general agricultural and harvesting operations. Nor is the immigration from the non-contiguous portions of India necessarily permanent. Immigration from Madras coast to Burma is so impermanent that in the decade 1901-1911, the number of emigrants leaving Burma for Madras was 81 per cent. of the number

Birth-place.	Percentage of total population.
District of enumeration ...	88·3
District contiguous to District of enumeration.	3·1
Non-contiguous districts ...	3·7
Contiguous districts of other provinces.	·5
Non-contiguous parts of other provinces.	3·6
Outside India ...	·8

of immigrants arriving from that port. No general conclusion can be obtained by a consideration of the contiguity of the district of enumeration to that of birth as to the relative proportions of the main types of migartion.

INTRA-PROVINCIAL MIGRATION.

73. Migration from Central Basin to Deltaic Plains.—So far as migration within the limits of the province is concerned, immigration and emigration consist of one single phenomenon presented from different aspects. This is best seen by a reference to Subsidiary Table IV, where omitting the entries indicating enumeration in the district of birth, a vertical column gives the immigration to the divisions at the head of the column, from each of the remaining divisions. Similarly each horizontal row gives the emigration from the division in column 1 of the same row, to each of the remaining divisions. So far as inter-migration between natural divisions is concerned, that between the Central Basin and the Deltaic Plains is the only movement of any numerical significance, that between any of the other natural divisions being less than the immigration and emigration of many individual districts in the province. The magnitude of the migration from the Central Basin to the Deltaic Plains has decreased from 384,517 to 311,804 since 1901. This decline does not indicate that there has been a contrary movement, and that the difference of 72,713 is due to the return of a number of the previous emigrants to their original homes in Upper Burma. The number of emigrants to any area is subject to a natural decrease by death-rate, any children born to them in the district of their adoption being recorded not as emigrants but as natives of their adopted district. The decline in numbers indicates that sufficient emigrants have not proceeded from the Central Basin to the Deltaic Plains to compensate for the depletion by death of the numbers of the emigrants of 1901. The increase of the population of the Central Basin by 13 per cent. for the decade 1901-11 suggests that there has been very little loss from this natural division by migration during that period. The maintenance of the rate of increase in the Central Basin at a rate somewhat above the natural increase of births over deaths demonstrates that the amount of emigration must have been comparatively small. The figures do not differentiate between the seasonal migration of labourers coming to Lower Burma to assist in the cultivation and harvesting of the crops, and the migration of cultivators who have left their homes permanently to occupy waste land available for cultivation. The former had a considerable effect on the decline, partly because the census was ten days later than in 1901, at the period when the return of temporary emigrants to Upper Burma would be rapidly proceeding. Another factor in the decline of the seasonal migration from Upper to Lower Burma was the excellent harvest in the former in 1909-10 which reduced the migration of the following season. Several districts in Lower Burma reported a shortage of labour in the season 1910-11 which expired just prior to the taking of the census. But the main causes of the decline are, that the easily culturable land in the deltaic districts has all been appropriated, that capital for financing further extensions is more difficult to procure, and that there are openings to be found in the oil industry and in the irrigated areas of the Central Basin, which are comparable with those now afforded by emigration southwards. The extensive migration of the latter portion of the nineteenth century has ceased. If opportunities have not been actually equalised over the different portions of the province by the extension of railways, by irrigation, and by the filling up of the places which were previously vacant, they have been brought within a much more limited range of variation. The large recorded migration from the Central Basin to the Deltaic Plains is the result of movements of population before the decade immediately under consideration. In the past ten years, so far from advancing beyond all previous figures, it has not even been able to maintain the position attained in 1901.

Migration from Central Basin to Deltaic Plains.

Year.	Migration.
1901 1911	384,517 311,804
Decrease ...	72,713

74. Conditions of internal Migration.—Although the migration from the Central Basin to the Deltaic Plains is declining, it may be of interest to discuss the methods by which such large numbers were transferred from regions of comparative congestion of population to those portions of the province having a

low density and capable of supporting a much larger population. Indeed, the discussion will result in throwing light on to one of the contributary causes of the decline. The only part played by Government in the migration has been the regulation of the distribution of waste land to intending occupiers. Two methods, one by grant, and the other by simple occupation, or squatting as it was termed, were permitted. Grants up to 15 acres per applicant were readily given, but grants of above that area could be given by superior officers only and were more jealously restricted. Stringent conditions regarding transfer, or alienation, or the amalgamation of several grants into one holding, were imposed. At first, so heavy was the demand that the machinery for enforcing the conditions was ineffective. But gradually, control was assumed and the penalties for breaches of conditions were enforced. This however led to a general recourse to extensions of cultivation by the second method, or simple occupation. Although until a period of 12 years should elapse, no right or title to land so occupied could accrue, cultivators found this method in actual practice a more effective means of acquiring a title to fresh land than through the agency of a grant. It was subject to no conditions, nor penalties, nor limitations of area, and the liability to eviction during the first twelve years was so slight, that land occupied in this manner was readily accepted as security for mortgages, even before full landholders' rights had accrued. When the attention of the Government was drawn to the fact that the title given by grant was less valuable than that obtained by the mere process of occupying waste land without any permission whatever, steps were taken to remove the anomaly. The conditions applying to unauthorised occupations of land were made as stringent as those applying to grants. In some districts the dual method of occupation of waste land, by grant and by squatting, was discontinued, and the single method of simple occupation under the same conditions as to alienation and limitation of the size of holdings as had previously applied to grants, was adopted.

Under the conditions so imposed by Government, the migration of cultivators from Upper to Lower Burma was the result of private enterprise. Labourers arriving from Upper Burma to assist in the cultivation and harvesting of the crops in Lower Burma heard of the possibilities of becoming landholders themselves on a scale more than sufficient for the full support of their families. They were brought into contact with capitalists, mostly Indian, who specialised in the financing of extensions of cultivation. At first such financiers were prepared to advance, on a mortgage of the land so occupied, the capital needed for the transformation of the waste area into cultivated land, and for the sustenance of the cultivator until he was able to support himself by his crop returns. But as the conditions regarding alienation of newly occupied land were more stringently enforced the possibility of foreclosing such mortgages vanished. The restrictions came into full force in the year 1907, and their results are apparent in a decline in area of land held under mortgage, and in the reduced rate of extensions of occupied area from 1906-07 onwards. The decline in the amount of capital advanced on the mortgage of cultivated land since 1907-08 has been operative principally on the fringe of cultivation where extensions were in progress. Synchronising with the completion of the appropriation of the more easily culturable wastes in the deltaic districts, it assisted in lessening the amount of migration which they had hitherto been capable of absorbing. At the time when extensions of cultivations were becoming more dependent on a larger capital outlay, the amount of capital available was diminished. The concurrent operation of the two influences operating in the same direction in staying the rate of extension of cultivation within the past few years is one of the causes of the diminished amount of migration recorded.

Cultivated land in Burma.
(Land Records Returns.)

Year.	Acreage.	
	Mortgaged.	Occupied.
1900-01	463,401	8,452,202
1901-02	590,784	8,858,716
1902-03	776,674	11,288,179
1903-04	906,705	12,920,447
1904-05	1,012,386	13,453,086
1905-06	1,196,283	13,776,947
1906-07	1,261,726	15,051,365
1907-08	1,306,198	15,167,128
1908-09	1,022,390	15,577,803
1909-10	1,007,719	15,823,057

In the Resolution on the Report on the Land Revenue Administration of Burma during the year ending the 30th June 1911, the agricultural year in which the census was taken, the two phenomena of retardation in the rate of extensions of cultivation, and the contraction of credit, are referred to in the following terms :—

"In Lower Burma at any rate, after making allowances for areas flooded and under existing orders not shown in the assessed area at all, it seems to be certain that there has

been since 1905-06 a generally progressive retardation in the rate at which new land has been taken up, and that the retardation was marked in the year under review."

"The areas of land sold, mortgaged and redeemed in 1910-11 were the lowest on record, and the values of land in sale and mortgage, for the third year in succession declined. The decline in the areas alienated in Lower Burma and in the values realised are attributed in the report mainly to the fear of agrarian legislation or of eviction from land purchased or taken up on mortgage. It is probable however that the restriction of credit that followed the collapse of the land boom of a few years ago is a more powerful factor in the decline. So far as the areas are concerned, the returns do not adequately represent the real fall, since in the last eight years more than one thousand square miles of land have been added to the area in Lower Burma from which alienations are reported, and these regions have automatically contributed an annual increase, which has nevertheless been far less than sufficient to arrest the process of decline."

It is not only with respect to the broad current of migration from the Central Basin to the Deltaic Plains that migration within the province has slackened since 1901. A reference back to Subsidiary Table II of the previous chapter will show that migration to and from each district, without reference to the main direction of the resultant flow, is now considerably less than at the earlier period. Considering the figures from their emigration aspect, in the Central Basin, out of thirteen districts the emigration from eleven is less than in 1901, in the Deltaic Plains it is less in eight out of eleven districts, and in the Coast Ranges it is less in six out of eight districts. A part of this lessened migration is nominal, and due to more fixed administrative conditions with fewer transformations of district boundaries. As such transformations become more remote in point of time, their disturbing influence in causing fictitious migration records becomes less. But even allowing for such a diminution it is clear that the general amount of migration as measured by the number of persons resident in districts other than that of birth on the date of the census is much less than formerly. The province has now settled down after the era of rapid transition due to the annexation of Upper Burma and the colonisation of the waste portions of the delta districts. A rough approximation to equality of conditions has been effected as a result of the previous dispersal of population. The difference in the relative advantages of migration and of attention to the possibilities of local development, has been gradually diminishing. The density of population of each district is now much more proportionate to its natural resources than has hitherto been the case, and its increase tends to distribute itself more locally than when a great disparity existed between the respective abilities of different localities to support their population. The phase of lessened migration may be temporary only. The tendency towards a position of more stable equilibrium may be disturbed by future developments which may alter existing conditions and produce new movements. Rubber and oil have considerable possibilities, and the potentiality of the latter in affecting migration is seen in the case of the Magwe District. The development of rubber was in too early a stage at the date of the census to have had a marked effect on migration. For the present there is a tendency for the majority of the districts of the province to absorb their own natural increases and to depend much less than in the past on migration to other portions of the province as an outlet for their surplus population.

EXTERNAL MIGRATION.

75. Indian Immigration.—As far back as the history of Burmese national life can be traced by means of its chronicles and its legendary lore, migration from India has been one of its most prominent and continuous features. Both the Burmese and the Talaings owe their evolution from a number of small, wild, scattered, disunited and nomadic tribes into large and cohesive kingdoms, to their contact with Indian colonists who had settled in numerous small colonies in the valley of the Irrawaddy. The earliest attempts at any form of government beyond a mere tribal organisation were commenced under Indian auspices at Tagaung, at Prome and at Thatôn. The religion of Burma equally with its system of government was obtained from Indian sources. Indian influence is to be found in every branch of Burmese life, not only in its religion and in its government, but also in its architecture, its festivals, its ceremonials, and its more intimate and domestic phases. The further back in point of time the investigations are carried the greater is the degree of Indian influence perceived. In view of the prevailing tendency to assume that the Burmese as a race are doomed by the modern incursions of Indians into the province, it seems necessary to emphasise the fact that the existence of the Burmese as a

powerful and widespread race is due to Indian immigration. Just as in the past the Burmese tribes assimilated what was essential and what was advantageous from the immigrant Indian, and evolved a highly individualised racial existence from the amalgamation, there is reason to believe that the present phase of Indian immigration is strengthening rather than weakening the hold of the Burmese on the province. It is true that they have lost for the time being a portion of its urban industry, but it has still to be demonstrated that the loss is more than temporary. It is more than compensated by the remarkable manner in which they have availed themselves of the opportunities afforded by the colonisation of its available wastes. The dispersal of the Burmese population over its unoccupied portions is a far sounder basis of future permanence and stability than would have been obtained by a larger concentration in its towns for the purpose of sharing in its urban and industrial development. In the course of the discussion on urban population in Chapter I of this report, it was demonstrated that the increase of the Buddhist or indigenous population has been tending towards agricultural pursuits, the percentage of town dwellers diminishing from 67 to 61 per cent. between 1901 and 1911. There is perhaps no more stable form of population than a peasant proprietory firmly established on the land. In the meantime, the Indian immigrant has been concentrating in the towns, more than a half of the Indian population being town dwellers in the main portion of the province comprising the natural divisions of the Central Basin and the Deltaic Plains. It would be contrary to experience to anticipate that a comparatively small town population with a disproportionately large number of males will succeed in affecting to any considerable extent the racial existence of a widely dispersed rural community. It is interesting, in view of the concern now being generally felt as to the continued existence of the Burmese race, to consider the view, previously obtaining, that it would be to the mutual advantage of both Burma and India to colonise the unoccupied areas of Burma by the surplus population from the most congested districts of India. A brief review of the previous policy and its results is of considerable importance not only in indicating its marked divergence from the present point of view but also in estimating the future possibilities of Indian immigration and its effects on the population of the province.

76. Assisted Indian Immigration.—For some time subsequent to the annexation of Pegu by the British in 1852, the policy of the Government was to intervene actively to promote the migration of cultivators from India to Burma. It was considered to be a mutual advantage to relieve the congestion of the most densely populated districts in India, and to introduce new crops, new methods of cultivation and much needed population into Burma. Repeated attempts were made to encourage such migration by direct action, but they were all unsuccessful. The whole subject was reconsidered by the Famine Commissioners in 1888, and their recommendations were embodied in the Circular of the Government of India in the Revenue and Agriculture Department, No. 96F.—6-59, dated the 19th October 1888. While adhering to the general principles of relieving specially congested tracts in India by transferring the indigent population of those parts of Burma, and of promoting the wealth of Burma by developing the cultivation of tracts lying waste and unproductive, it was considered that such attempts should in future be made by private capitalists, as personal supervision and continuity of effort were essential to success. Rules were framed and published in Revenue Department Notification of the Government of India, No. 521R., dated 24th July 1889, to carry out the recommendations. Only two estates were formed under these rules, as follows :—

(i) a lease expiring in 1953 of 27,506 acres to Mr. Mylne at Kyauktaga in the Pegu District with an option of renewal for 63 years at a rent equal to two-thirds of the ordinary revenue on land cultivated and of similar renewals in perpetuity,

(ii) a grant of 15,000 acres in 1894 to Rai Jai Prakash Lal Bahadur, C.I.E., at Zeyawaddy in the Toungoo District, the revenue after 1994 being two-thirds of the ordinary rate.

In the meantime the attitude of the Local Government towards Indian immigration was rapidly changing. The extraordinary extensions of cultivation effected by the Burmese emigrants from Upper Burma in the delta districts, demonstrated that it was not essential for the progress or prosperity of the province to colonise its waste areas by means of settling Indian immigrants upon the land. Indian labour was required, but rather in the direction of preparing the crops for

export after they had been reaped, than in introducing new crops or in extending the area under cultivation. It was determined that the system of agriculture most suited to the province was that of the peasant proprietor, in which the cultivator held his land direct from the State in small plots, sufficient for supplying the full requirements of family life, and not too large for cultivation by the members of the family without recourse to assistance by outside labour. The settlement of Indian labour on the land introduced new and complicated relations of landlord and tenant, contrary to the ideals towards which the efforts of Government were consciously directed. It attempted in a petty, cumbersome and ineffective manner what was being accomplished expeditiously, effectively and on the largest scale by the indigenous population. It was supplying an unfelt want partly by deflecting labour from where it was urgently needed. In 1908, the Local Government caused an enquiry to be instituted into the working of these estates, from which it appeared that the object of the concessions had not been realised to any considerable extent. In the cause of the Kyauktaga grant, the grantee was no longer recruiting from the congested districts in India referred to in the circular, but was engaging for cultivation ordinary coolies who had come over, mostly from Madras to labour on public works, and who would have been more usefully employed, so far as Burma was concerned, if they had continued on such work. On both the grants, the immigrants were paying somewhat high rents to the grantee, and they did not appear in some cases to be living under ordinary sanitary conditions. They had introduced no new kinds of cultivation and had failed to adapt themselves to the climate and manner of life prevailing in Burma.

The total population settled on the two estates is less than 10,000. On the Kyauktaga grant the majority of the settlers are of agricultural castes from the United Provinces, the district of Fyzabad supplying the greatest number from any individual district. On the Zeyawaddy grant the majority of the settlers are from Behar, the Shahabad District supplying 3,494 of the total. In both grants the immigrants live in self-contained Hindu villages, influencing but little, and influenced but little by, the Burmese life surrounding them. They have maintained their caste system and rules with greater success than the majority of Hindu immigrants into Burma who are necessarily brought more closely into contact with the disintegrating influence of Burmese life and opinion.

Grant or lease.	Persons.	Males.	Females.
Kyauktaga ...	4,415	2,589	1,826
Zeyawaddy ...	5,065	2,800	2,265
Total ...	9,480	5,389	4,091

77. Nature of demand for Indian immigration.—The results of these two efforts to establish an Indian peasantry in Burma confirms the opinion that the natural attraction of Burma for the Indian immigrant is not its agricultural possibilities. With the exception of the agricultural immigrants from Chittagong into the district of Arakan, few Indians come to Burma with the intention of embarking in agriculture. The economic demand of Burma is not for agricultural but for urban labour, not for the raising of a crop, but for its disposal, and for the supply of the agricultural population of the province with their general requirements. It is true that the extension of cultivation in the past has proceeded so rapidly that a large portion of the extended area has been necessarily mortgaged to pay the expenses of transformation of wild jungle into culturable land. Owing to this necessity, Indian money-lenders have obtained control of large areas of cultivated land. It is also true that the purchase of land is a favourite form of investment with Indian merchants and traders who have made their money in non-agricultural industries in the larger towns of the province. This possession of land by Indian landholders has stimulated to some extent the cultivation of the land by Indian cultivators. But the number of Indian agriculturalists among the total population is extremely small. Reference must be made to Imperial Table XVD and to Subsidiary Table No. VIII of Chapter XII of this report for a complete analysis of the impression made by the Indian on the agriculture of Burma. Hindus and Mahomedans combined do not amount to more than 3·3 per cent. of the total agricultural population, using the term in its widest sense. Or, putting the same facts in another way, the percentages of the Hindu and Mahomedan populations of the province supported by agriculture

Agriculturalists by religions.	
Religion.	Percentage of total agriculturalists.
Buddhist ...	88·6
Animist ...	6·3
Hindu ...	1·1
Mahomedan ...	2·3
Christian ...	1·7

are 23·5 and 46 respectively. The percentage for Mahomedans is unduly increased by the inclusion of Akyab where there is a large indigenous agricultural Mahomedan population. Excluding these, about one quarter only of the Indian population of the province is concerned with agriculture.

78. Decline in Indian Immigration.—Quite apart from the statistics of birth-place it is possible to obtain a broad general view of the extent of extra-provincial migration by means of the records of the numbers of immigrants passing through the Port of Rangoon. Mr. Lowis obtained from the Customs authorities statistics for the period between March 1891 and February 1901 shewing a total of 1,092,762 immigrants and 813,554 emigrants giving an excess of 279,208 for the decade. The marginal statement compiled for the corresponding period of the past ten years 1901 to 1911, shews that the amount of immigration has just about doubled, and the amount of emigration more than doubled in the later of the two periods. The surplus migration remaining in the province, nearly 100,000 more than the surplus for the earlier decade, would indicate that Burma is offering an increasing field for immigration. But a closer inspection of the figures shews a decided decline in the last few years of the decade. From 1901 to 1908 there was a remarkable uniformity in the annual gain to the province by migration, the figures departing for one year only, that of 1904-05, from a narrow range between 44,000 and 50,000. In the year 1908-1909 there was a remarkable change, the number of emigrants leaving Burma being greater than the number of immigrants arriving, possibly a unique experience in the history of the province since it came under British administration. In 1909-10 migration resumed its wonted general direction but at a greatly reduced gain to the population of the province. In 1910-11 a further recovery was made, but the resultant gain is still less than a half of the normal annual gain at the commencement of the decade. It is not that the number of immigrants have become less. They fell slightly from 1907-08 to 1908-09 but since then they have arrived in greater numbers than ever before recorded. It is the large increase in the number of emigrants which has produced so marked a change in the character of the migration. Emigration has doubled in the second five years of the decade as compared with its first five years. As the Port of Madras contributes more than half the immigrants to Burma and receives more than half its emigrants, an examination has been made of its migration statistics to see if they correspond to the movement of figures for the Port of Rangoon. A general correspondence can be detected, but it is marked to a certain extent by the figures for Madras being compiled for the calendar year, which changes in the middle of the migration season. The correspondence is best seen in the surplus population remaining in Burma as the resultant of the two movements. The disturbing effect of the different annual periods is largely eliminated when the differences of the two movements,

Migration through Port of Rangoon.

Year.	Immigration.	Emigration.	Surplus.
1901-02	145,217	97,320	47,897
1902-03	149,384	105,280	44,104
1903-04	165,555	115,770	49,785
1904-05	167,102	98,221	68,881
1905-06	213,230	165,191	48,039
1906-07	248,756	200,085	48,671
1907-08	249,521	201,915	47,606
1908-09	230,750	235,007	—4,257
1909-10	259,462	253,349	6,113
1910-11	269,217	247,627	21,590
	2,098,194	1,719,765	378,429

Migration between Burma and the Port of Madras.

Year.	Immigration from Madras.	Emigration from Madras.	Surplus.
1901	84,329	54,488	29,841
1902	80,916	64,345	16,571
1903	100,645	81,265	19,380
1904	127,622	83,721	43,901
1905	124,365	96,216	28,149
1906	152,207	135,354	16,853
1907	105,614	93,793	11,822
1908	119,742	89,516	30,226
1909	131,587	112,827	18,760
1910	133,495	125,984	7,511
	1,160,522	937,508	223,014

Gain by migration in first and last five years of decade 1901.

Surplus measured by.	1901-05	1906-10	Decline.
Migration through Port of Rangoon.	258,706	119,723	—138,983
Migration from Port of Madras.	137,842	85,172	—52,670

instead of their absolute numbers, are compared. Comparing the gain of population to Burma by migration in the first five years of the past decade with that for the second five years there is a marked decline recorded. This decline has proceeded concurrently with a marked increase in the emigration from Madras to the Straits Settlements. This emigration has advanced from 27,950 in 1901 to 85,105 in 1910, the greatest advances taking place in the second half of the decade, when Burma began to be seriously affected. The rubber industry of the Straits Settlements is a formidable competitor with Burma for labour from Madras, in several ways. It has introduced a large and rapidly growing demand tending to deflect in a different direction that portion of the supply which would in the past have been available for increased immigration into Burma. It has also induced a large emigration from Rangoon to the Straits, many of the emigrants from Madras coming to Rangoon for the busy season and then proceeding to the Straits Settlements when the off season arrives, instead of returning as formerly back to Madras. It is to this triangular migration that the large increase of emigration from Rangoon in the past five years is largely due. Moreover the Straits Settlements retain a much larger proportion of their immigrants than Burma. In the ten years from 1901-1911 Burma retained only 19 per cent. of the total immigrants arriving from the Port of Madras, whereas the percentage of immigrants arriving within the same period from the same port, who were retained in the Straits Settlements, was 44.

Emigrants from Madras to Straits Settlements.

1901	27,950
1902	19,622
1903	22,960
1904	28,249
1905	40,900
1906	52,306
1907	62,537
1908	58,778
1909	48,719
1910	85,015
Total ...	447,036

Migration to and from Madras Port 1901-1911.

	Immigration.	Emigration.	Surplus.	
			Actual.	Per cent.
Burma ...	1,160,522	937,508	223,014	19
Straits ...	447,036	215,887	195,149	44

But it is not only to external influences such as the deflection of labour from Madras to the Straits Settlements that the change in the resultant migration between India and Burma is to be attributed. The decline in the number of Indian immigrants absorbed into the province has occurred concurrently with the decline in internal migration described in paragraph 74. To a certain extent they are both manifestations of the same operating forces. The tendency towards the equalisation of economic conditions within the province has made it necessary for the inhabitants of the majority of the districts of Burma to seek to absorb their natural increases of population locally, and to depend less than formerly on migration. But this can only be done by entering occupations formerly relinquished entirely to immigrant Indians. In Upper Burma there are indications that concerted action is being taken by the Burmese to prevent the Indian coolie from establishing himself in many localities. Contracts are now being accepted and performed by Burmese labour which formerly would have been given as a matter of course to Indian contractors employing Burmese labour. This tendency is but in an elementary stage, but with a steadily increasing economic pressure it may be expected to gain force. Among other influences tending to reduce the demand for Indian labour, the strenuous attempts made by the Local Government during the latter part of the decade 1901-1911 to discourage transfers of recently extended cultivation to large land holders, and to encourage extension by small holdings sufficient for the needs of one family, must be mentioned. The use of Indian labour in agricultural operations is fostered by large holdings, whereas small holdings given to *bonâ fide* agriculturalists tend to confine agricultural extensions to the members of the indigenous races. It has been seen that one of the causes of the reduced migration from Upper to Lower Burma is the withdrawal of capital at a time when extension of cultivation can only be effected by increased capital expenditure. But the effect on Indian cultivators has been greater than on immigrants from Upper Burma. The Burman immigrant is affected only by the lessened rate of extension. The Indian immigrant is affected not only by the lessened rate of extension, but also by the fact that he is almost entirely excluded from participation in the extensions under the later restrictions. The decline in Indian immigration manifested by the migration

records of the Port of Rangoon must therefore be attributed to the operations of two distinct forces working concurrently in the same direction. Simultaneously with an increased demand for Indian labour in the Federated Malay States, there has been a tendency towards a reduced demand for such labour in Burma. The latter has been due largely to the fact that the abnormal activity succeeding the annexation of Upper Burma has quietened down, and a period of more steady progress has now commenced. The natural increase of the population is able to cope with the modified conditions now obtaining, without recourse to outside assistance to the extent that was formerly necessary. Under the double stimulus of an increased attraction in another direction, and a gradual though slow limitation of its sphere of utility in Burma, migration from India, measured by the surplus of immigration over emigration, has declined considerably during the past few years.

79. Comparison of birth-place with shipping statistics.—Although the statistics for migration into the province through the Port of Rangoon for the period of 1901-1911 shews a net gain to the province of 378,429, and although by far the greater portion of this surplus is from India, the statistics for birth-place shew but a trifling increase of 77,746 in the number of persons born in India. As the proportion of immigration from India as recorded in the birth-place statistics is about five times the immigration from countries other than India, it is legitimate to assume that about five-sixths of the surplus of 378,429 is due to migration from India. On this assumption, the gain to the population of the province by migration from India should have been somewhat over 300,000. It seems almost impossible to reconcile so large an initial gain with the final resultant of 77,746. The explanation is to be found partly in the exceedingly high death-rate among the majority of the immigrants from India, and partly in an actual recorded decrease in the immigrant Indian population of the Akyab District, which will be separately considered. If the figures for Akyab District be excluded the number of persons born in India increased by 107,679, from 342,221 in 1901 to 449,900 in 1911. A reference to Subsidiary Table III of Chapter II of this volume shews that Rangoon has the high death-rate of 41·28 per cent. for the decade 1901-1911. The principal contributary to this high rate is the large number of immigrant Indians congregated therein. They are mostly new to the climate, they have hard, long, and monotonous labour to perform, they are ill nourished, living penuriously with a view to saving the greater portion of their wages, and they are housed in barracks, which however efficiently kept and inspected, are but a poor substitute for home life. Such conditions produce an abnormally high death-rate amongst them. Even when steadied by the more normal rate of the ordinary population of Rangoon, the resultant is as high as 41·28 per cent. for the decade on the initial population. The surplus of immigration over emigration must not, therefore, be counted as a net gain of population to the province. In a great measure it is needed to maintain the numbers at a stationary level, and it is not until the large proportionate loss by death has been made good that an addition to the population by migration occurs. The net gains for the period 1901 to 1908 are much less than the surplus calculated in the first marginal statement of the preceding paragraph. But in 1908 the number of Indian immigrants was subjected to a double depletion. Instead of there being a surplus of immigration to compensate for the loss by death, there was a surplus of emigration to add to the loss by death, and to cause a marked reduction in their numbers. In the period from 1909-1911, there has been a partial recovery, and for the two years prior to the Census, immigration has exceeded emigration. But the excess has not been sufficient to cover the loss by death, and the number of Indian immigrants resident within the province must have progressively declined since 1908. It is to this loss for the past three years that the slight degree of increase in the number of immigrants from India is to be attributed. Had the enumeration taken place in 1908, an increase commensurate with that between 1891 and 1901 would have been recorded.

Gain of population by migration through Port of Rangoon.

Year.	Immigration.	Emigration.	Surplus.
1901-1911	2,098,194	1,719,765	378,429

Year.	Born in India.	Increase.
1901	415,953	...
1911	493,699	77,746

80. Seasonal migration between Chittagong and Akyab Districts.—There are many reasons for a separate treatment of the migration between India and the Akyab District. It differs materially from the remaining immigration into Burma in that it comprises the only appreciable overland migration between Burma and India. Every year, there is a periodic migration of coolies from Chittagong to assist in agricultural operations in Akyab. The amount of migration fluctuates greatly, falling to very small dimensions after a good season, and rising considerably after a bad season, in Chittagong. Only a comparatively small number remain permanently behind in Akyab, the majority returning to their homes in Chittagong after the reaping of the crops. The marginal statement shews a marked fall in the number of immigrants from India since 1909, due principally to a decline in the number of immigrants from Chittagong. The later date on which the Census was taken in 1911, the 10th March against the 1st March in 1901, must have had a considerable effect in reducing the numbers recorded. The first half of March is the period when the immigrants are returning to their homes in large numbers after the completion of harvest operations. A postponement of the record by ten days in the busiest portion of the emigration season would cause a marked reduction in the number of immigrants to be entered. But this could not account for the whole of the large decrease recorded, and the principal cause of the greater portion of the decrease is still to be considered. It is impossible to test the records of birth-place by any recorded statistics of actual migration. There are three main routes, one entirely by sea, by the steamers of the British India Company, one partly by land to Maungdaw, and thence by the steamers of the Arakan Flotilla Company, and the third entirely by land. No records of persons using the two latter methods of travelling are kept. Coming to Akyab, the majority of the immigrants travel by one of these two latter methods, not having sufficient means to pay for a passage by steamer direct to Akyab. On returning to Chittagong, the majority return direct by sea, partly because they have the means to pay for their passage, and partly because, if they have so far succeeded in evading assessment to Capitation Tax, they are certain of escape, once they are on board. Accepting the figures for migration by sea as being a partial presentation of the total movement, it is seen that while the immigration for the past three years has remained stationary, emigration has largely increased. It would be perhaps too great an assumption to accept this tendency to increased emigration compared with immigration as typical of the whole. But the search for the cause of the increased emigration by sea has revealed a credible explanation of the general decline in the returns of persons in the Akyab District, recorded as being born in Chittagong. It is to be found in the following extract from the Land Revenue Administration Report for Burma, for the year ending 30th June 1907 :—

Immigration into Akyab District.

Year.	From Chittagong.	From rest of India.	Total from India.
1911	30,521	13,278	43,799
1901	54,843	18,889	73,732
1891	54,734	6,421	61155

Emigration by British India Steamers between Akyab and Bengal.

Year.	Immigrants.	Emigrants.
1901	11,983	17,130
1902	15,227	27,807
1903	14,343	20,807
1904	14,474	19,702
1905	16,348	19,989
1906	19,292	20,976
1907	23,135	30,630
1908	36,421	41,503
1909	36,747	46,886
1910	36,623	55,888

"The number of persons assessed to capitation-tax rose by 24,620, a gratifying increase above the figures (5,575) of the previous year, and rather above than below the average increase of the preceding seven years, while the demand rose by Rs. 92,416, or somewhat less than that average. More than the entire increase in the number of assessees and almost the entire increase in the revenue demand were due to the energetic enforcement by the Deputy Commissioner, Major Stone, of the decision to assess systematically the Chittagonian coolies who visit Akyab District, annually, to work as agricultural labourers. The exact figures are 25,323 and Rs. 91,857, respectively. Mr. Houghton, the Commissioner of Arakan, to whom the thanks of Government are due for bringing the matter to its notice, observes that great as the increase is, the present figures are not much higher than those which would have been attained if the rate of increase prevailing between 1897-98 and 1901-02 had been continued. It was apprehended that a serious shortage in the labour supply might result from this policy, but the check on immigration proved only temporary. Two beneficial results are said to have accrued from the temporary check. Premature reaping, to which the Arakanese are prone, and excessive employment of hired labour, were somewhat diminished. Some mistakes were made at the start in carrying out the new policy. Thus, some of the immigrants, who usually come with only money for travelling expenses in their possession, were taxed immediately on arrival, and those who admitted to having wives in Chittagong

were assessed as married men at the higher rate of Rs. 5. The Steamer Companies, who do business between Chittagong and Akyab, complained with special reference to the system of assessment on arrival that their passenger traffic fell off. The Commissioner subsequently directed that the immigrants should not be assessed until they had been employed, and orders were also passed for the assessment of coolies whose wives were in Chittagong at the unmarried rate. The Deputy Commissioner remarks that these Chittagonian coolies come to Akyab, only when crops fail in Chittagong and work is scarce, and that changes in contemplation in Chittagong may provide them in a few years with sufficient work at home. Compared with the figures in Akyab, all other changes are insignificant."

In this extract, the decline and even the extinction of this migration is foreshadowed. Apart from the extra revenue received, the check on immigration resulting from the stringent assessment of the Capitation Tax is considered to have produced two beneficial results. It does not seem that any further explanations concerning the decline in the number of immigrants from Chittagong are needed. The migration is seasonal, and consequently the later date of the Census of 1901, at a time when the immigrants were returning to their homes, resulted in a smaller record; it is fluctuating, so that marked changes in numbers were to be anticipated; it has been subjected in the past few years to a heavy taxation from which it had hitherto been largely exempt; its diminution is considered to be productive of beneficial results by the local authorities, and the stringent assessment of the tax is stimulated by other than purely revenue considerations; its decline was foretold four years before the Census was taken; and finally, so far as the records of actual migration are available, they suggest that emigration is proceeding more rapidly than immigration. Apart entirely from a genuine decrease, it is probable that immigrants, fearing assessment to the tax, avoided being entered in the enumeration records.

81. Abnormal age and sex distribution of Indian immigrants.—In discussing the general influence of Indian migration on the province of Burma, it is necessary to draw attention to the remarkable disparity in the numbers of the sexes of the immigrants from India. A detailed discussion of the conditions and results of such disparity is, however, more pertinent to Chapters II and VI of this Report dealing with the "Movement of the Population" and "Sex", respectively. Reference should be made to these Chapters for a consideration of the disparity as it affects these phenomena, respectively. Similarly, the age distribution of the immigrants by which the population of the province between 15 and 45 years of age is unduly increased, can be discussed more suitably in Chapter V, specially devoted to a consideration of the ages of the inhabitants of the province, than in a Chapter dealing with the broad aspects of migration.

Persons born in India.	
Sex.	Numbers.
Male ...	423,169
Female ...	70,530
Disparity ..	352,639

82. Chinese immigration.—Of the 88,626 persons recorded as being born in Asiatic countries other than India, 75,365 were born in China. It is possible by a combination of the figures recorded in Imperial Tables XI and XIII, to arrive at the number of Chinese immigrants, and the number of persons born in Burma claiming to be of Chinese race. The figures are approximate only, for it is not a fact that the Chinese in the province, not born in China, must necessarily have been born in Burma. Moreover, the crude figures from the Imperial Tables require modification to allow for extensions of census limits, and to enable the comparison to be made over identical areas for the years of comparison. In 1901, the inclusion of the Shan States was responsible for a small portion of the increase in the numbers of the Chinese recorded, and in 1911, the extension of Census limits to Kokang and West Manglün brought considerable numbers of Chinese on to the records. It is necessary to exclude the Specially Administered Territories if a comparison extending beyond the current census is to be attempted. Effecting this exclusion, it is seen that

Chinese Population of province.			
Year.	Total.	Born in China.	Born in Burma.
1911	122,834	75,365	47,469
1901	62,486	43,328	19,158
1891	41,457	23,060	18,397

Chinese Population of Burma Proper.			
Year.	Total.	Born in China.	Born in Burma.
1911	83,762	62,178	21,584
1901	57,780	40,216	17,564
1891	41,457	23,060	18,397

the apparent increase from 62,486 to 122,834, almost doubling the numbers of the Chinese race in Burma within the past ten years, is due mainly to the extension of Census limits over regions on the Chinese border containing a large indigenous Chinese population. The nearest approximation to the increases due to the three causes of extension of Census limits, immigration, and natural increase that can be effected, is given in the marginal statement. In Burma Proper, the increase by immigration is 21,962, or 54 per cent. over the number of immigrants in 1901. An analysis of the Chinese population by sex for the past two enumerations affords interesting results. The disparity of the sexes has increased both actually and proportionately, the number of males added to the population being 22,709, as against 3,273 females. The extreme disparity in the numbers of the sexes is accompanied by a large degree of intermarriage between the surplus Chinese males and the women of the Burmese race. Such marriages are regarded with great favour, and in contra-distinction to the result of intermarriage between the Burmese and the Indian races, the fusion of Chinese and Burmese strains is generally considered to be a most advantageous racial combination. A curious result of intermarriage between the Chinese, and the Burmese is that it tends to enhance the disparity of the sexes as recorded, to a remarkable degree. The well-known custom by which the male children of such marriages assume membership of the Chinese race while the female children assume membership of the Burmese race, has been the subject of frequent comment. It was mentioned in paragraph 253 of the Census Report for 1901. Curiously enough, this custom is not apparent from the statistics for 1901, from which it would appear that the number of Chinese females born in the country exceeded the number of males. This anomaly is probably due to the jealousy with which the Burmese-born Chinaman insists on his Chinese nationality, even to the extent of assuming that he was born in China, to remove any possible doubts on the subject. The figures for 1911 afford a much more correct representation of a well-known fact, the number of Chinese males, born in Burma, being 14,886 as against 6,698 females. The disparity in the numbers of the sexes migrating from China to Burma is enhanced by the artificial disparity due to the males and females of identical parentage assume different racial designations.

Increase in Chinese Population, 1901-1911.

Cause of Increase.	Numbers.
Extension of Census Limits	34,366
Immigration ...	21,962
Natural increase ...	4,020
Total ...	60,348

Chinese Population of Burma Proper by sex.

Year.	Chinese Population.			Born in China.			Born in Burma.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1911 ...	83,762	66,669	17,093	62,178	51,783	10,395	21,584	14,886	6,698
1901 ...	57,780	43,960	13,820	40,216	53,808	4,408	17,564	8,152	9,412
Increase ...	25,982	22,709	3,273	21,962	15,975	5,987	4,020	6,734	—2,714

83. Immigration of European and Allied Races.—Perhaps the question most frequently asked of the Census Superintendent of Burma in the course of the operations is concerning the number of Europeans in the province, or in Rangoon. There are two possible replies according to the information required,

Europeans from Imperial Table XIII.

	British Subjects.			Others. (Europeans and Americans.)			Total.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
Province ...	11,828	8,904	2,924	1,615	1,120	495	13,443	10,024	3,419
Rangoon ...	5,162	3,866	1,296	789	551	238	5,951	4,417	1,534
Mandalay District.	1,891	1,418	473	86	48	38	1,977	1,466	511

The numbers of persons claiming to be European British subjects, or members of other European races, are given in full detail in Imperial Table XIII. The marginal statement gives an abstract of the figures of the province, for the City of Rangoon and for the District of Mandalay. These numbers do not agree with those of the persons actually born in non-Asiatic countries, Europe, America, and British Dominions, which are to be obtained from Imperial Table XI. The differences between the two statements must be attributed to the number of persons born in India claiming to be Europeans. The figures are not of great statistical importance, except from the sex disparity so noticeable in all the immigrant races of the province. Their intrinsic interest, however, entitles them to a special presentation which their absolute numbers would not justify. It is probable that the numbers of Europeans recorded as born in India are enhanced by persons of Anglo-Indian race claiming to be Europeans. It is most improbable that the number of pure Europeans within the province, who were born in India, should reach such a high proportion, approximately, one half, of the numbers born in Europe, America, and the Colonies.

Persons born in non-Asiatic countries.
(Europe, America, and British Dominions.)

	Persons.	Males.	Females.
Province	8,998	7,552	1,446
Rangoon	4,191	3,499	692
Mandalay District	1,534	1,285	249

Europeans in Burma.

	Born in Europe, America, and the Colonies.	Born in India.	Total.
Province ...	8,998	4,445	13,443
Rangoon ...	4,191	1,760	5,951
Mandalay ...	1,534	443	1,977

84. Emigration from Burma.—The emigration from Burma to other parts of India is insignificant in numbers. From 1901 to 1911, it has increased from 9,460 to 10,902, an increase of 1,442 only. Over one-third of this emigration is due to the local migration between the districts on the Arakan coast and the neighbouring districts of Eastern Bengal and Assam. The next largest constituent item is an emigration to Madras, which is partly due to persons of Madras parentage born in Burma, returning with their parents to Madras. The figures of Burmese emigrants to the Andamans (omitted in 1901) give the number of convicts from Burma serving their punishment there.

85. General Conclusions.—The period elapsing between the Census of 1901 and that of 1911, has witnessed a remarkable change in the extent and conditions of migration in Burma. At the commencement of the period, the province was coming to the end of an era of rapid expansion. The fertile wastes of the delta had been colonised, principally by means of the surplus population of the more congested districts, and the concentration of the energies of the indigenous inhabitants in the one direction of agricultural expansion, had stimulated the immigration of large numbers of Indians to perform the increased industrial functions of an urban character, which necessarily accompanied the increased agricultural activity of the province. In 1901, so extensive was the migration due to the conditions then obtaining, that its effect on the population of the two main natural divisions was to deplete the rate of increase in the Central Basin to 9 per cent., a figure much below the natural rate of increase of births over deaths ; and to enhance the rate of increase in the Deltaic Plains to 28 per cent., a figure more than double the highest possible natural rate of increase. Such a period of expansion was too intense to continue indefinitely. A reaction, or at least a retardation of the rapidity of the progress being made, was inevitable. It is difficult to state exactly when the change began to operate. It is probable that the land boom, which raged during the first few years of the decade 1901 to 1911, was the actual immediate cause of the changed conditions. It was due to the assumption that a rate of expansion, which had continued for so long, was established and would continue for an indefinite period. Prices were paid, and capital was invested in land values, on this assumption, which failed to mature. It was some years before the fact that agricultural extension had reached the limit of the stage, when fertile culturable land could be obtained for the simple cost of clearance, was generally appreciated. Nevertheless, such a stage was reached about the middle of the decade. The knowledge that the available waste land, culturable without inordinate expenses of

preparation, was rapidly coming to an end, induced a more stringent administration of the restrictions framed to prevent land from passing from the *bonâ fide* cultivator to the non-agriculturalist landlord. These various converging causes produced a culminating effect at the commencement of the latter half of the decade. The contraction of credit, initiated by the reaction following the land boom, was accelerated by the knowledge that, for the future, the land over which cultivation was being extended would not be permitted to be given as a security for the money advanced in effecting the extension. At the same time, the land available for extension at moderate cost came to an end in the majority of the Deltaic Districts. The effect on migration was considerable. The retardation of the rate of extension of cultivation in the delta stayed the migration from Upper Burma, and even induced a slight reflex action. The Upper Burman, denied the relief accruing from migration southwards, accepted the opportunities which previously he had permitted the Indian to retain. Indian migration, finding the relative advantages of Burma and the Straits Settlements changing decisively in favour of the latter, deflected itself in that direction to an increasing extent. It is only within the past few years of the decade that these tendencies have become pronounced. It is difficult to determine to what extent they are but passing phases. So far as a review of current conditions can foretell, Burma is entering on a period of steady progress in which its indigenous population will suffice for all its agricultural needs. Its rubber and mineral industries may develop beyond the possibilities of its indigenous labour supply, and may need immigrant labour to some extent. Its urban and transport industries will still require large quantities of Indian labour, though it is probable that even in these directions, the Burman, forced by the closing of other avenues, will take a progressively increasing share. It is not suggested that a time is in sight, when Burma will be independent of the Indian labour supply; but it is certain that the degree of dependence on the Indian labour supply will decline rather than advance.

SUBSIDIARY TABLE I.—*Immigration* (000's *omitted*).

District and Natural Division where Enumerated.	Born In																	
	District (or Natural Division).			Contiguous Districts of Province.			Other parts of Province.			Contiguous parts of other Provinces (Chittagong and Manipur).			Non-contiguous parts of other Provinces.			Outside India.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
I.—Central Basin ...	4,008	1,898	2,110	33	19	14	12	8	4	...	...	...	53	46	7	7	6	1
Prome	356	172	184	10	5	5	6	4	2	...	...	...	6	5	1	1	1	...
Thayetmyo	240	117	123	4	2	2	2	1	1	...	...	...	2	2	...	...	...	...
Pakôkku	404	192	212	3	2	1	1	...	1	...	...	...	2	2	...	...	...	...
Minbu	248	119	129	10	5	5	2	1	1	...	...	...	3	3	...	...	...	...
Magwe	300	145	155	9	5	4	4	3	1	...	...	...	4	3	1	...	...	...
Mandalay	299	141	158	9	5	4	11	6	5	...	...	...	18	15	3	4	3	1
Shwebo	344	160	184	7	4	3	2	1	1	...	...	...	2	2	...	1	1	...
Sagaing	304	143	161	5	2	3	1	1	...	...	...	...	2	2	...	...	...	...
Lower Chindwin ...	293	128	165	20	11	9	1	1	...	...	...	...	1	1	...	...	...	...
Kyauksè	128	62	66	10	5	5	2	1	1	...	...	...	1	1	...	...	...	...
Meiktila	270	127	143	2	1	1	3	2	1	...	...	...	5	4	1	...	...	...
Yamèthin	276	135	141	18	9	9	7	4	3	...	...	...	5	4	1	1	1	...
Myingyan	432	204	228	4	2	2	3	2	1	...	...	...	2	2	...	...	...	...
II.—Deltaic Plains ...	3,589	1,783	1,806	118	63	55	237	137	100	26	26	...	319	266	53	44	40	4
Rangoon	91	44	47	4	2	2	27	17	10	15	15	...	138	115	23	17	14	3
Hanthawaddy	410	203	207	23	13	10	41	25	16	4	4	...	56	46	10	5	4	1
Tharrawaddy	378	184	194	23	12	11	21	11	10	...	...	...	9	8	1	2	2	...
Pegu	297	147	150	35	19	16	59	33	26	1	1	...	33	26	7	4	4	...
Bassein	400	198	202	13	7	6	11	6	5	2	2	...	13	12	1	2	2	...
Henzada	490	238	252	9	5	4	23	12	11	...	...	...	8	7	1	2	2	...
Myaungmya	257	128	129	24	13	11	41	23	18	1	1	...	10	9	1	3	3	...
Ma-ubin	255	124	131	15	8	7	26	15	11	1	1	...	7	6	1	2	2	...
Pyapôn	143	70	73	23	12	11	72	42	30	1	1	...	14	12	2	3	3	...
Thatôn	377	189	188	12	7	5	8	5	3	...	...	...	18	15	3	2	2	...
Toungoo	265	132	133	32	16	16	37	20	17	1	1	...	13	10	3	2	2	...
III.—Northern Hill Districts.	592	293	229	29	19	10	7	4	3	1	1	...	15	13	2	20	14	6
Bhamo	86	42	44	3	2	1	5	3	2	...	...	...	4	4	...	8	5	3
Myitkyina	64	32	32	6	4	2	5	3	2	...	...	...	5	4	1	6	4	2
Katha	187	91	96	5	3	2	3	2	1	...	...	...	2	2	...	1	1	...
Ruby Mines	81	41	40	10	6	4	3	2	1	...	...	...	2	2	...	5	4	1
Upper Chindwin ...	159	78	81	7	4	3	1	1	...	1	1	...	2	1	1	...	...	...
IV.—Coast Ranges ...	1,403	709	694	11	7	4	5	3	2	35	32	3	38	34	4	8	7	1
Akyab	482	248	234	2	1	1	1	1	...	31	28	3	13	11	2	1	1	...
Northern Arakan ...	21	11	10	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Kyaukpyu	182	87	95	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...
Sandoway	100	49	51	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Salween	44	23	21	1	1	...	...	...	...	...	...	...	1	1	...	...	...	...
Amherst	328	166	162	7	4	3	6	5	1	3	3	...	19	17	2	4	3	1
Tavoy	133	66	67	...	...	...	1	1	...	...	...	...	1	1	...	1	1	...
Mergui	104	53	51	...	...	...	2	1	1	...	...	...	4	4	...	2	2	...
V.—Specially Administered Territories.	1,416	700	716	6	4	2	1	1	...	...	...	...	7	7	...	15	11	4
Northern Shan States ...	397	196	201	3	2	1	1	...	1	...	...	...	3	3	...	10	7	3
Southern Shan States ...	883	437	446	1	1	...	2	1	1	...	...	...	3	3	...	5	4	1
Pakôkku Hill Tracts ...	17	8	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chin Hills	118	57	61	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...

SUBSIDIARY TABLE II.—*Emigration* (000's *omitted*).

District or Natural Division where born.	Enumerated in								
	District (or Natural Division).			Contiguous District of Province.			Other parts of Province.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10
I.—Central Basin ..	*4,008*	*1,898*	*2,110*	*137*	*74*	*63*	*209*	*124*	*85*
Prome	356	172	184	25	13	12	18	10	8
Thayetmyo	240	117	123	15	8	7	19	10	9
Pakôkku	403	192	211	7	4	3	29	17	12
Minbu	248	119	129	3	2	1	29	15	14
Magwe	300	145	155	10	5	5	21	12	9
Mandalay	299	141	158	12	6	6	47	30	17
Shwebo	344	160	184	11	7	4	27	15	12
Sagaing	304	143	161	12	6	6	19	11	8
Lower Chindwin	293	128	165	6	4	2	26	15	11
Kyauksè	128	62	66	2	1	1	3	2	1
Meiktila	270	127	143	12	6	6	32	18	14
Yamèthin	276	135	141	19	10	9	5	2	3
Myingyan	432	204	228	13	7	6	36	21	15
II.—Deltaic Plains ..	*3,689*	*1,783*	*1,806*	*17*	*10*	*7*	*12*	*7*	*5*
Rangoon	91	44	47	7	4	3	34	19	15
Hanthawaddy	410	203	207	27	15	12	4	2	2
Tharrawaddy	378	184	194	23	12	11	5	3	2
Pegu	297	147	150	10	5	5	5	3	2
Bassein	400	198	202	16	9	7	9	5	4
Henzada	490	238	252	24	13	11	18	11	7
Myaungmya	257	128	129	1	1	...	1	...	1
Ma-ubin	255	124	131	27	15	12	4	3	1
Pyapôn	143	70	73	4	2	2	2	2	...
Thatôn	377	189	188	16	8	8	...	...	...
Toungoo	265	132	133	13	7	6	4	3	1
III.—Northern Hill Districts ..	*592*	*293*	*299*	*20*	*12*	*8*	*1*	*1*	...
Bhamo	86	43	44	2	1	1	2	1	1
Myitkyina	64	32	32	...	...	...	1	1	...
Katha	187	91	96	8	5	3	1	...	1
Ruby Mines	81	41	40	1	...	1	...	...	...
Upper Chindwin	159	78	81	20	12	8	1	1	...
IV.—Coast Ranges ..	*1,403*	*709*	*694*	*17*	*9*	*8*	*12*	*8*	*4*
Akyab	482	248	234	...	...	...	2	1	1
Northern Arakan	21	11	10	...	...	...	...	...	...
Kyaukpyu	182	87	95	4	2	2	2	2	...
Sandoway	100	49	51	3	2	1	1	1	...
Salween	44	23	21	...	...	...	1	...	1
Amherst	328	166	162	9	5	4	9	5	4
Tavoy	133	66	67	3	2	1	1	1	...
Mergui	104	53	51	...	..	...	1	1	...
V.—Specially Administered Territories.	*1,416*	*700*	*716*	*19*	*10*	*9*	*13*	*8*	*6*
Northern Shan States ...	397	196	201	5	3	2	7	4	3
Southern Shan States ...	883	437	446	7	4	3	14	8	6
Pakôkku Hill Tracts ...	17	8	9	...	...	...	...	.	...
Chin Hills	118	57	61	...	...	...	1	1	...

NOTE.—The number of emigrants from Burma to India is too small and their birth places are too indefinite for entry in thousands for individual districts in this statement.

SUBSIDIARY TABLE III.—*Proportional Migration to and from each District.*

District and Natural Division.	Number per mille of actual population.						Number of Females to 1,000 Males amongst			
	Immigrants.			Emigrants.			Immigrants.		Emigrants.	
	Total.	From contiguous districts.	From other places.	Total.	To contiguous districts.	To other places.	From contiguous districts.	From other places.	To contiguous districts.	To other places.
1	2	3	4	5	6	7	8	9	10	11
I.—Central Basin (a)	*62*	*27*	*25*	*111*	*35*	*76*	*914*	*329*	*861*	*747*
I.—Central Basin (b)	*26*	*8*	*18*	*84*	*33*	*51*	*642*	*342*	*873*	*1,008*
Prome	60	26	34	107	62	45	906	377	922	755
Thayetmyo	32	16	16	124	55	69	858	387	902	873
Pakôkku	14	7	7	82	16	66	809	278	803	662
Minbu	57	38	19	118	11	107	974	307	697	882
Magwe	53	28	25	93	30	63	756	328	926	861
Mandalay	123	26	97	165	34	131	829	336	848	641
Shwebo	33	19	14	99	29	70	803	240	683	709
Sagaing	25	16	9	92	36	56	1,005	335	914	683
Lower Chindwin ...	69	63	6	98	18	80	30	341	588	604
Kyauksè	92	71	21	37	15	22	1,048	410	729	605
Meiktila	35	7	28	140	38	102	755	273	1,017	772
Yamèthin	100	58	42	80	63	17	924	469	980	705
Myingyan	20	9	11	101	27	74	710	287	859	704
II.—Deltaic Plains (a)	*223*	*49*	*174*	*59*	*39*	*20*	*868*	*396*	*846*	*686*
II.—Deltaic Plains (b)	*171*	*33*	*138*	*7*	*4*	*3*	*879*	*430*	*857*	*696*
Rangoon	688	65	623	310	53	257	667	596	801	768
Hanthawaddy ...	239	50	189	70	61	9	789	324	862	688
Tharrawaddy ...	127	53	74	68	56	12	952	565	875	591
Pegu	307	84	223	48	32	16	883	517	888	664
Bassein	93	34	59	58	37	21	934	276	809	726
Henzada	79	17	62	78	35	43	902	558	856	681
Myaungmya ...	235	74	161	8	4	4	858	516	765	391
Ma-ubin	166	52	114	108	94	14	803	525	822	706
Pyapôn	441	94	347	40	27	13	805	580	831	718
Thatôn	95	28	67	40	40	...	802	270	939	298
Toungoo	243	94	149	60	46	14	998	622	872	490
III.—Northern Hill Districts. (a)	*127*	*47*	*80*	*55*	*47*	*8*	*632*	*359*	*722*	*666*
III.—Northern Hill Districts. (b)	*108*	*45*	*63*	*33*	*30*	*3*	*643*	*364*	*707*	*448*
Bhamo	188	28	160	44	22	22	981	502	777	505
Myitkyina	255	69	186	15	...	15	549	305	617	205
Katha	55	25	30	45	40	5	693	374	666	472
Ruby Mines ...	198	99	99	12	12	..	628	241	1,042	583
Upper Chindwin ...	64	47	17	116	111	5	587	344	699	510
IV.—Coast Ranges (a)	*70*	*9*	*61*	*24*	*13*	*11*	*625*	*136*	*727*	*646*
IV.—Coast Ranges (b)	*64*	*30*	*34*	*18*	*11*	*7*	*577*	*161*	*723*	*765*
Akyab	90	62	28	5	...	5	36	144	790	431
Northern Arakan ...	45	...	45	...	...	...	969	363	...	...
Kyaukpyu	11	11	...	31	21	10	672	145	585	1,066
Sandoway	19	19	...	38	29	9	666	90	831	519
Salween	44	22	22	22	...	22	533	200	751	1,086
Amherst	106	27	79	52	26	26	666	192	813	765
Tavoy	22	...	22	29	22	7	479	88	512	752
Mergui	71	...	71	9	...	9	657	152	28	803
V.—Specially, Administered Territories. (a)	*20*	*3*	*17*	*23*	*8*	*15*	*333*	*316*	*714*	*692*
V.—Specially, Administered Territories. (b)	*20*	*4*	*16*	*22*	*13*	*9*	*937*	*765*	*756*	*795*
N. Shan States ...	41	7	34	29	12	17	408	813	760	576
S. Shan States ...	12	1	11	23	8	15	592	502	720	758
Pakôkku Hill Tracts	...	...	...	..	...	..	176	1,018	...	...
Chin Hills	8	...	8	8	...	8	53	278	1,320	221

(*a*) The upper figures for natural divisions give the proportional migration obtained by considering each district as a separate unit in calculating migration.

(*b*) The lower figures for natural divisions give the proportional migration obtained by considering the natural division itself as the unit in calculating migration.

SUBSIDIARY TABLE IV.—*Migration between Natural Divisions compared with* 1901

(000's *omitted*).

Natural Division in which born.		Number enumerated in Natural Division.				
		I Central Basin.	II Deltaic Plains.	III Northern Hill Districts.	IV Coast Ranges.	V Specially Administered Territories.
1		2	3	4	5	6
I.—Central Basin	1911	4,008	312	24	4	6
	1901	3,569	385	24	5	5
II.—Deltaic Plains	1911	18	3,589	1	9	1
	1901	19	3,023	1	6	...
III.—Northern Hill Districts	1911 ...	20	1	592	...	...
	1901 ...	3	4	482	...	...
IV.—Coast Ranges	1911 ...	3	26	...	1,403	...
	1901 ...	2	27	...	1,170	...
V.—Specially Administered Territories.	1911	3	16	10	3	1,416
	1901	6	24	10	6	1,117

SUBSIDIARY TABLE V.—*Migration between the Province and other parts of India.*

	Immigrants to Burma.			Emigrants from Burma.			Excess (+) or Deficiency (−) of Immigration.	
	1911.	1901.	Variation.	1911.	1901.	Variation.	1911.	1901.
1	2	3	4	5	6	7	8	9
Grand total	*494,699*	*415,953*	*+78,746*	*13,353*	*9,460*	*+1,442*	*+488,797*	*+406,493*
British territory	*482,022*	*411,289*	*+70,733*	*12,734*	*7,078*	*+3,215*	*+471,729*	*+404,211*
Ajmer-Merwara ...	199	33	+ 166	...	...	...	+ 199	+ 33
Andamans and Nicobars ...	451	36	+ 415	1,719	...	...	+ 451	+ 36
Baluchistan	30	8	+ 22	39	...	+ 39	− 9	+ 8
Bengal	67,981	157,454	−13,737	1,466	3,330	+1,752	+ 66,515	+154,124
Eastern Bengal and Assam	75,736			3,616			+ 72,120	
Bombay (including Aden) ..	12,782	6,487	+ 6,295	632	302	+ 330	+ 12,150	+ 6,185
Central Provinces and Berar	548	2,133	− 1,585	236	315	− 79	+ 312	+ 1,818
Coorg	5	...	+ 5	...	...	...	+ 5	...
Madras	247,360	189,828	+57,532	2,021	1,535	+ 486	+245,339	+188,293
North-West Frontier Provinces.	740	26,206	- 25,466	29	802	+ 777	+ 711	+ 46,954
Punjab	25,595	21,550	+ 4,045	1,550			+ 24,045	
United Provinces of Agra and Oudh.	50,595	7,554	+43,041	1,426	794	− 90	+ 49,891	+ 6,760
States and Agencies	*9,718*	*3,365*	*+ 6,353*	*609*	*353*	*+ 256*	*+ 9,109*	*+ 3,012*
States of Eastern Bengal and Assam.	678	1,234	− 556	...	...	...	+ 678	+ 1,234
Baroda	136	1	+ 135	63	25	+ 38	+ 73	− 24
Bengal States	771	...	+ 771	...	...	...	+ 771	...
Bombay States ...	39	124	− 85	...	...	...	+ 39	+ 124
Central India Agency ...	221	240	− 19	13	...	+ 13	+ 208	+ 240
Central Province States ...	75	...	+ 75	...	...	...	+ 75	...
Hyderabad	1,575	658	+ 917	185	114	+ 71	+ 1,390	+ 544
Kashmir	433	68	+ 365	...	3	− 3	+ 433	+ 65
Cochin	53	...	+ 53	...	...	...	+ 53	...
Travancore	124	...	+ 124	22	...	+ 22	+ 102	...
Rest of Madras States ...	704	...	+ 704	...	...	...	+ 704	...
Mysore	933	452	+ 481	273	184	+ 89	+ 660	+ 268
North-West Frontier (Agencies and Tribal areas).	3	...	+ 3	...	...	...	+ 3	...
Punjab States	505	35	+ 470	...	...	...	+ 505	+ 35
Rajputana Agency ...	1,780	553	+ 1,227	53	27	+ 26	+ 1,727	+ 526
United Provinces States ...	688	...	+ 688	10	...	...	+ 688	...
French and Portuguese Settlements	*845*	*500*	*+ 345*	...	...	...	*+ 845*	*+ 500*
India Unspecified	*2,114*	*799*	*+ 1,315*	...	*2,029*	*−2,029*	*+ 2,114*	*− 1,230*

CHAPTER IV.

Religion.

86. Scope of Chapter.—Nothing has occurred in the interval elapsing since the census of 1901 to change the broad general current of the religious life of the community. Its Buddhism still remains an imperfect amalgamation of the tenets of the two main schools of Buddhistic thought, the Mahayana and the Hinayana, the former introduced from Northern India and the latter from Ceylon. Although a fusion of the two branches was effected in the 11th century during the reign of Nawrata, King of Pagan, the different elements still remain as separate sects within the one religion, neither actively aggressive nor actively conciliatory towards each other. Underlying the philosophic and academic differences between the two sects, there exists a solid substratum of crude animism. For the great majority of Buddhists, their creed can still be described, in the words used by Mr. Eales in 1891, as a thin veneer of philosophy laid over the main structure of Shamanistic belief. Animism, though it forms a considerable portion of the belief of all the indigenous races of the province, is only openly professed by the minor tribes, and in the modified form of ancestor worship, by the Chinese. The Hindu and Mahomedan religions are professed principally by recent immigrants from India and their descendants, though there exist several communities of both religions who have been established in the province for many generations. Christianity continues to make progress among the Animistic tribes and races of the province, but produces little impression where Buddhism has established itself. The adherents of all other religious beliefs are numerically insignificant in comparison with those of the five religions mentioned. The absence of any fundamental changes in the religions of the province during the past decade, renders any detailed description of their principal characteristics unnecessary. Such descriptions have been given for the indigenous religions in previous census reports and in numerous standard works of reference, official and unofficial. This chapter will therefore be confined to a purely statistical discussion of the variation and distribution of the religious population of the province of Burma as revealed by the census returns.

As religion rather than race was adopted as the primary basis of classification of the population, most of the Imperial Tables give different aspects of the distribution of population classified by religion. Imperial Tables V and VI giving the distribution of the urban and the total population by religions are the most important for the purposes of this chapter. These have been supplemented by a series of six Subsidiary Tables, three of which (I, II and VI) have been designed to show the proportional distribution and variation of the main religions, the remaining three being devoted to a presentation of the distribution and variation of the members of Christian religion and its principal sects. They are as follows :—

Subsidiary Table I.—General distribution of the population by religion.
Subsidiary Table II.—Distribution by Districts of the main religions.
Subsidiary Table III.—Christians. Numbers and variations.
Subsidiary Table IV.—Races and Sects of Christians. (Actual numbers.)
Subsidiary Table V.—Distribution of Christians per mille (*a*) races by sect and (*b*) sects by race.
Subsidiary Table VI.—Religions of urban and rural population.

87. Rates of Variation of Principal Religions since 1891.—As in every other branch of census statistics, in Burma, the comparison of the numbers of adherents of the various religions is disturbed both by changes in census limits with each successive enumeration and by the progressive efficiency of enumeration from census to census. Between 1881 and 1891, the actual figures, the provincial proportions and the rates of variation, are modified by the inclusion of the greater part of Upper Burma for the first time within the sphere of the enumeration. Between 1891 and 1901 the inclusion of the Specially Administered Territories,

and the extension of census limits in the Northern Hill Districts, from the vague and ill-defined areas of 1891 to the full district areas of 1901, caused similar disturbing modifications. In the past decade, the transfer of the estimated areas of 1901 (in the Pakôkku Hill Tracts, the Kachin Districts of North Hsenwi in the Northern Shan States, the Karenni Subdivision in the Southern Shan States, and in the Myitkyina District) to areas of non-synchronous enumeration, and the extension of census limits into Kokang, West Manglün and the unadministered territory of the Pakôkku Hill Tracts, have made it necessary to correct the total provincial figures, before it is possible to make an effective comparison of the variation which has occurred between 1901 and 1911. Taking the figures as recorded at the census enumerations of 1891, 1901 and 1911, the first marginal statement shows the actual number of adherents of each religion returned within the census limits of the province at these three dates respectively. Even as a statical presentation of the strength of the religions it is defective. In 1901 no returns of the religion of 127,011 persons within census limits were obtained; and in 1891 there were 116,493 persons whose religion could not be ascertained. But its defects as a statical presentation of the distribution of the population by religions are of minor character compared with its defects if utilised for the purpose of comparison. The percentages of variation from year to year given in the second marginal statement are vitiated not only by the omissions to record religion throughout the census area, but also by the changes in the census areas themselves.

Strength of Religions of the Province.

Religions.	1911.	1901.	1891.
Buddhist ...	10,384,579	9,184,121	6,888,250
Animist ...	701,473	399,390	168,450
Hindu ...	389,679	285,484	173,432
Mahomedan ...	420,777	339,446	253,640
Christian ...	210,081	147,525	120,922
Sikh ...	6,693	6,596	3,360
Zoroastrian ...	300	245	98
Jew ...	1,024	685	351
Jain ...	495	93	...
Confucian ...	71	...	...
Secularist, etc.	45	28	49

Variation of population by religion.

Religion.	Increase per cent.	
	1901-1911.	1891-1901.
Buddhist ...	13	33
Animist ...	76	137
Hindu ...	36	65
Mahomedan ...	24	34
Christian ...	42	22

A closer approximation to reality can be obtained by confining the statistics to Burma Proper. But though this eliminates the Specially Administered Territories whence the greatest sources of disturbance arise, there still remain two disturbing factors, the non-coincidence of the census area of 1891 with Burma Proper, and the absence of complete returns by religions from small areas in the Bhamo, Myitkyina and the Upper Chindwin Districts in 1901, and from wider areas in 1891. However, as it represents for the smaller area of Burma Proper a fairly close approximation to the actual religious distribution of the population, it is worthy of presentation. The variations per cent., calculated from these figures, and represented in the final marginal statement of this paragraph, are much truer indications of the rate of increase of the numbers professing adherence to each religion than those calculated from the total figures returned at the various enumerations. The impossible increases of 137 and 76 per cent. for the Animist population for the two periods respectively and of 33 per cent. for the Buddhist population for the period 1891-1901, are corrected and reduced to something approaching the actual rate of variation. Those for the decade 1901-1911 may be accepted as being very closely approximate to the true rates of increase for the province, while those for 1891 to 1901 are somewhat enhanced by the magnitude of the disturbing factors already mentioned.

Strength of Religions of Burma Proper.

Religion.	1911.	1901.	1891.
Buddhist ...	9,273,865	8,223,071	6,888,075
Animist ...	328,613	237,508	168,449
Hindu ...	382,288	279,975	171,577
Mahomedan ...	417,575	337,083	253,031
Christian ...	199,680	145,726	120,768
Sikh ...	6,301	5,498	3,164
Zoroastrian ...	300	245	96
Jew ...	1,024	685	351
Jain ...	495	93	..
Confucian ...	71	...	...
Secularist, etc.	44	28	49

Variation of population by religion (Burma Proper).

Religion.	Increase per cent.	
	1901-1911.	1891-1901.
Buddhist ...	13	19
Animist ...	38	41
Hindu ...	36	63
Mahomedan ...	24	33
Christian ...	37	21

88. Proportionate Distribution of Different Religions since 1881 :— In the inherently difficult task of attempting to measure the extent of variations of incompletely recorded religions over progressively changing areas, the method of simple percentages of increase, even when corrected for identical areas, is open to several objections. An alternative method, by which the effect of the absence of a record of religions for a portion of the population can be eliminated, and the effect of changes of area illustrated, is to compare the percentages of the population recorded under each religion for each census enumeration. Before the calculation is made, the population for which no records of religion have been recorded is omitted, and the percentages show the actual proportions of the adherents of the several religions free from all disturbing errors. But though the figures in each vertical column in the marginal statement are free from error with respect to each other, each vertical column represents a calculation over a distinct and different area from that for the remaining columns. The figures for the year 1881 are for the area then known as British Burma; those for 1891 are for a vague and indefinite area including most of Upper Burma; those for 1901 are for the whole province less the estimated areas and the areas omitted from census operations for that year. Those for 1911 are for the whole province within census limits. The effect of the successive extensions of census limits on the figures for the distribution by religions can be seen by comparing the entries in the various columns. In 1891, the extension of the census area to include the predominantly Buddhist portion of Upper Burma raised the proportion of Buddhists from 87 to 90 per cent., and depressed the percentages of all the remaining religions. In 1901, the extension of the census area to include the Specially Administered Territories and the previously omitted portions of the Northern Hill Districts unduly enhanced the percentage of Animists. In 1911, the extension of the classification of religions over a number of areas peopled almost exclusively by Animistic tribes again caused the percentage of Animists to be raised to a figure considerably above that of 1901. The variations in the proportionate distribution of the population by religion from census to census, is due to changes in the census area to a greater extent than to changes in the relative numbers of the persons professing each religion.

Percentage of population by religion.

Religion.	1911.	1901.	1891.	1881.
Buddhist ...	85·72	88·62	90·53	87·01
Animist ...	5·79	3·85	2·21	3·84
Hindu ...	3·21	2·75	2·28	2·36
Mahomedan	3·47	3·28	3·33	4·52
Christian ...	1·73	1·42	1·59	2·25
Others ...	·08	·08	·06	·02

89. Buddhism.—Buddhism is the religion professed by 10,384,579 persons in Burma. Despite nominal increases of 33 per cent. and 13 per cent. in the number of its adherents for the past two decades, its proportion of the total inhabitants recorded has diminished successively from 90.53 per cent. in 1891 to 88·62 per cent. in 1901, and to 85·72 per cent. in 1911. It has been seen that both the abnormal increase of 33 per cent. from 1891 to 1901 and the successive diminutions in its proportional numbers are due largely to extensions of religious classification over wider areas at each census. A consideration of the variation for 1891-1901 over Burma Proper, reduced the increase from 33 to 19 per cent., though even the latter figure is somewhat enhanced beyond its true value by the want of absolute coincidence in the areas over which the variation is calculated.

Considering the distribution and variation within the natural divisions of the province, the Central Basin assumes priority, not only because it contains a greater number of Buddhists than is found in any other natural division, but also on account of the high percentage the Buddhists bear to the total population. In the twenty years that have elapsed since 1891 the proportion of Buddhists has varied by a small fraction per cent. only In 1911 it was 96·02 per cent., leaving slightly less than four per cent. for the adherents of all the remaining religions. If the urban population be excluded, the percentage of Buddhists rises to 97·69 per cent. of the whole, while in certain districts an even higher percentage of Buddhism is found. Five districts show a proportion of over 98 per cent., and two, Myingyan and the Lower Chindwin Districts, have a Buddhist population of 99·13 and 99·26 per cent. of their

Percentage of Buddhist population in Central Basin.

Year.	Percentage of total population.
1891 ...	96·31
1901 ...	96·42
1911 ...	96·02
1911 (Rural) ...	97·69
1911 (Urban) ...	79·88

total populations respectively. One cause of the maintenance of the proportion at a consistently high level is the gradual extension of the Buddhist faith among the Animist population. The immigration of Hindus and Mahomedans into this division of the province would have affected the proportions to a slightly greater extent, but for the steady additions made to the adherents of Buddhism from the members of animistic tribes. It was this transfer from Animism to Buddhism which increased the proportions of Buddhists between 1891 and 1901, despite the fact that the increase in the Buddhist population was depleted below its natural rate from 12 to 9 per cent. for the decade by extensive migration from this area to Lower Burma. The close coincidence of racial with religious divisions give the figures an important significance in connection with the future of the indigenous races of the province. During the period of rapid transition, occurring subsequent to the elimination of the consolidating influences of the existence of a national court, at a time when economic tendencies were drawing the Buddhist population from the districts of the Central Basin, and were attracting non-Buddhist inhabitants to its towns, a marked decline in the percentage of the Buddhist population of this area might have been anticipated. The maintenance of the Buddhist population at such a high proportionate level, and the recovery of the rate of increase for the decade from 9 per cent. in 1891-1901 to 12 per cent. in 1901-1911, in spite of the adverse influences which might have been expected to produce contrary results, demonstrates a religious and racial stability of an exceptionally high degree. The influences which are popularly supposed to be rapidly effecting the doom of the Burmese race, when seen in their true proportions, are found to be, for an area comprising one-third of the population of the province, of a superficial nature only.

Immigration from India has played a much greater part in affecting the proportion of Buddhist population in the districts of the Deltaic Plains, than in those of the Central Basin. Commencing from 1881 the percentage has declined with each successive census from 90·12 to 85·32 in 1911. The decline is relative not absolute. A reference to Subsidiary Table I will shew that concurrently with the decline in the percentage of the total population, there have been increases of 29, 22 and 12 per cent. in the actual numbers of Buddhists in this area for the three decades 1881-1891, 1891-1901 and 1901-1911, respectively. Though Buddhism increased during the first two of these three decades at a rate considerably above the natural rate of increase of population for the province, the immigration of Hindus and Mahomedans caused increases of their numbers at still higher rates, and thereby diminished the proportionate numbers of the Buddhist population. A reference to the percentages for the urban and rural populations given on Subsidiary Table VI indicates that the relative decline has been marked in the former and but slight in the latter. The percentage of 85·32 for the year 1911 is the resultant of a percentage of 90·50 for the Buddhist population in the rural areas, and of 51·48 only for the Buddhist population in towns. Thus, although the Buddhist inhabitants of the towns in the Deltaic Plains amount to but slightly over one-half of the urban population, outside their limits the number of Buddhists is over 90 per cent. of the rural population. The additions to the number of Buddhists by migration which caused increases of 29 and 22 per cent. in past decades have now ceased, and a moderate increase of 12 per cent., closely approximating to the natural increase of births over deaths, has been recorded for the period from 1901 to 1911. This does not indicate that the proportion of Buddhists to the total population will necessarily continue to decline. The decrease in migration is apparent among Hindus and Mahomedans to an equal degree. It is probable that the percentage of Buddhist population in the rural areas will commence to increase gradually, while even in towns the decline in the proportion of Buddhists has apparently approached its limit.

Percentage of Buddhist population in the Deltaic Plains.

Year.	Percentage of total population.
1881 ...	90·12
1891 ...	89·80
1901 ...	87·95
1911 ...	85·32
1911 (Rural) ...	90·50
1911 (Urban) ...	51·48

The progressive decline in the percentage of the Buddhist population in the Coast Ranges from 1881 to 1901 has ceased and a slight movement in a contrary direction has asserted itself in the decade 1901 to 1911. This is due principally to two causes, the extension of Buddhism among the animistic tribes of the Salween and the Northern Arakan Districts, and the diminution of the Hindu population of the Amherst District. There are many reasons for the low

percentage of Buddhists as compared with the percentages for the Central Basin and the Deltaic Plains. Both Akyab and Mergui Districts contain large indigenous Mahomedan populations, and proximity to the sea has induced a comparatively large Indian immigration especially into the ports of Akyab, Moulmein and Mergui. The apparent diminution of the Buddhist population by 3 per cent. from 1891 to 1901 is due to a readjustment of district boundaries which affected the area of the Amherst and Thatôn Districts in the interval. It has not been possible to adjust the population for the changed boundaries.

Percentage of Buddhist population in the Coast Ranges.

Year.	Percentage of total population.
1881 ...	78·02
1891 ...	76·99
1901 ...	73·74
1911 ...	73·99
1911 (Rural) ...	75·93
1911 (Urban) ...	54·70

The recorded proportions of Buddhists to total population in the Northern Hill Districts and the Specially Administered Territories for the year 1901 have but little relation to reality. They are the proportions existing over an artificial area determined by the possibilities of effecting a census enumeration. The percentages for 1911 can claim a nearer approach to reality though they are still the result of a record over incomplete areas, and of an assumption that the population of the estimated areas are composed entirely of Animists. The low proportions of Buddhists are due to the large number of animistic races within the areas of these two natural divisions. Only the Katha and Ruby Mines Districts, with percentages of 95·43 and 96·02 per cent. respectively, can compare with the districts of the Central Basin in the strength of their Buddhist populations.

Percentage of Buddhist population in Northern Hill Districts and Specially Administered Territories.

Year.	Northern Hill Districts.	Specially Administered Territories.
1901	84·41	84·77
1911 ...	77·92	73·80

A general review of the distribution of the Buddhist population, and a more detailed investigation of the rate of increase for the past decade, the only one free from disturbing changes of area, demonstrates that there is an extremely steady increase at a rate slightly exceeding the natural rate of the increase of population. In the main portion of the province comprised within the Central Basin and the Deltaic Plains, where Buddhism is the religion professed by 96 and 85 per cent. of the population respectively, the rates of increase are approximately equal; but whereas in the Central Basin the percentage to the total population has been maintained at an extremely high level, in the Deltaic Plains, it has been progressively reduced by an immigration of Hindus in sufficient strength to appreciably modify the proportionate distribution. In the three natural divisions comprising the outlying portions of the province, the percentage of Buddhist population is much lower than in the two central divisions. But the rate of increase is somewhat above the natural rate, representing the tendency of Buddhism to absorb the members of the animistic races who are brought within its sphere of influence. Neither the immigration of Hindu and Mahomedan races in large numbers into the province nor the efforts of Christian missionaries, have produced any appreciable effect on the steady progress of Buddhism and its rate of advance. Though its percentage of increase is less than that of any of the remaining four religions, the actual increase in the number of its adherents is greater than that of all the remaining religions in the province combined. And though its proportion to the total population has slowly declined through extensions of area and the immigration of non-Buddhists, it still continues to be the religion of over 85 per cent. of the total inhabitants of the province.

Increase per cent. in Buddhist population.

Area.	Percentage.
Province	**13**
Central Basin	12
Deltaic Plains	12
Northern Hill Districts	13
Coast Ranges	16
Specially Administered Territories.	15

90. Animism.—Animism, or spirit worship, is in one respect the universal religion of the indigenous races of Burma The acceptance of the Buddhist faith by no means involves a cessation of belief in the existence of nats or spirits, or of the performance of the rites and ceremonies in their honour. The statistics recorded for Buddhists and Animists in the census returns merely differentiate between those Animists who have added to their belief a more or less thorough assimilation of the tenets of Buddhistic faith and philosophy, and those Animists

who have not made such an addition. Mr. Lowis in describing the Buddhism of the Burman writes:—

"Animism supplies the solid constituents that hold the faith together, Buddhism the superficial polish. Far be it from me to underrate the value of that philosophic veneer. It has done all that a polish can do to smooth, to beautify, and to brighten, but to the end of time it will never be anything more than a polish. In the hour of great heart-searchings, it is profitless as the Apostle's sounding brass. It is then that the Burman falls back upon his primæval beliefs. Let but the veneer be scratched, the crude animism that lurks must out. Let but his inmost vital depths be touched, the Burman stands forth an Animist confessed."

This toleration of primitive beliefs not inherent in the teaching of Buddha is the principal cause of ready assimilation of Buddhism by the members of the animist races of the province. No recantation of their existing beliefs is necessary. All that is required is the acceptance of a few positive precepts which do not actively proscribe what has been previously believed. It follows that there is but a broad vague indefinite line of demarcation between the two categories, Buddhism and Animism. They shade off gradually into each other, the superficial veneer of Buddhism existing in many degrees of attenuation.

The religion given by the majority of the Chinese in the province is ancestor-worship, or as it is translated in the vernacular, nat-worship or animism. A few (71) Chinese gave Confucianism as their religion, and there were small numbers of Chinese Buddhists, Mahomedans and Christians, but animism is the correct designation to apply to a belief implying the existence of a spirit world peopled with beings producing human characteristics and emotions in an intensified degree. The inclusion of the Chinese population among the Animists introduces into this religious group an element of heterogeneity. It includes on the one hand, the primitive tribes, too backward and uncivilised to have accepted Buddhism, and on the other hand, the representatives of the oldest existing civilisation in the world.

A statistical analysis of the Animist population of the province is a matter of considerable difficulty. Even considering the variation for the past decade only, it is necessary to make allowance for the extension of census limits to include Kokang, West Manglun and the unadministered area of the Pakôkku Hill Tracts, and for the absence of any religious classification in 1901 in the administered area of the Pakôkku Hill Tracts, in the Kachin Districts of North Hsenwi, in Karenni, and in the estimated portions of the Upper Chindwin, Bhamo, and Myitkyina Districts. It is possible to correct the figures obtained from the census returns so that these disturbances shall be eliminated, but to carry the corrections back for previous years would entail a large amount of labour with but little profit. The effect of the corrections is to reduce the variations in the Northern Hill Districts and the Specially Administered Territories from 81 and 130 per cent. to 67 and 30 per cent., respectively, and to reduce the provincial rate of increase from 76 to 32 per cent. But even these figures are open to suspicion. It is among the Animist tribes in the north of the province and in the remote portions of nearly every district in the province, that errors of enumeration are most likely to occur, and though improved and closer administration in such areas has now resulted in better enumeration, previous errors are still a source of disturbance in comparisons of

Animist population, 1901-1911.

Area.	Population.		Increase.	
	1911.	1901.	Actual.	Per cent.
Province ...	**701,473**	**399,390**	**302,083**	**76**
Central Basin ...	38,670	36,465	2,205	6
Deltaic Plains	59,640	35,626	24,014	67
Northern Hill Districts.	120,354	66,352	54,002	81
Coast Ranges ...	109,949	99,065	10,884	11
Specially Administered Territories.	372,860	161,882	210,978	130

Corrected Returns of Animists, 1901-1911.

Area.	Population.		Increase.	
	1911.	1901.	Actual.	Per cent.
Province ...	**528,845**	**399,390**	**29,455**	**32**
Central Basin ...	38,670	36,465	2,205	6
Deltaic Plains ...	59,640	35,626	24,014	67
Northern Hill Districts.	110,658	66,352	44,306	67
Coast Ranges ...	109,949	99,065	10,884	11
Specially Administered Territories.	209,928	161,882	48,046	30

rates of variation. The increases of 6 and 11 per cent. in the Central Basin and the Deltaic Plains can be accepted as being a true representation of the probable rate of increase. The increases of 67 and 30 per cent. in the Northern Hill Districts and the Specially Administered Territories are due, partly to under-enumeration in 1901, and partly to immigration from Chinese territory, or from the unadministered areas within British territory, as well as to natural increase. The increase of 67 per cent. for the Deltaic Plains is due principally to the immigration of Chinese.

Proportions of Animist population.

Year.	Percentage of total population.
1911 ...	5·79
1891 ...	3·85
1881 ...	2·21
	3·84

In 1881 the Animist population formed 3·84 per cent. of the total population of British Burma. In 1891, the extension of census limits over Upper Burma (excluding the localities where the Animist population resided) led to a reduction to 2·21 per cent. Successive extensions of census limits to areas where Animists form large portions of the population, have resulted in increases in the proportion of the Animist population to the total population of the census area of the province to 3·85 and 5·79 respectively. The percentage of 5·79 is the resultant of widely varying percentages in different portions of the province ranging from ·94 per cent. in the Central Basin to 24·78 per cent. in the Specially Administered Territories. The percentage rises to 99·73 in the Pakôkku Hill Tracts, 98·16 per cent. in the Chin Hills and 89·15 per cent. in the Northern Arakan District, while in Kyauksè and Lower Chindwin Districts, it falls to ·01 and ·02 per cent. respectively.

Percentage of Animist to total population.

Area.	Percentage.
Province ...	5·79
Central Basin	·94
Deltaic Plains	1·37
Northern Hill Districts.	18·16
Coast Ranges	7·33
Specially Administered Territories.	24·78

91. Hinduism.—The numbers of the Hindu population of Burma are less affected by changes in the census area than those of the Buddhist and Animist inhabitants. It is true that the increase in the proportion of Hindus to the total population is modified by the inclusion of fresh areas containing no Hindu inhabitants, but the actual variations in their numbers can be accepted without intricate corrections. The increase in the number of Hindus (104,195) for the period 1901-1911 is slightly less than the increase in the previous decade, but on the increased numbers the percentage of variation has decreased considerably, being 36 only, as against a previous increase of 65 per cent. The increase is a compound of three factors, immigration, increase of births over deaths for the Hindu population of the country, and the children of mixed marriages of Hindus with women of Burmese race. The first is the most important factor numerically, the bulk of the immigrants into the province from India being Hindus. As to the natural increase of the Hindu population actually resident within the country, it is exceedingly small owing to the large disparity between the male and female population, and it is a matter of doubt whether the births would exceed the deaths. However, the excess of males to the extent to which they have intermarried with the Burmese is being separately considered. Excluding these, as there is a high proportion of married women among the Hindu females in the province there is probably a fair rate of natural increase in the Hindu community which has not intermarried with the Burmese. As to the part played in the increase in the number of Hindus by the marriage of the surplus Hindu males with women of Burmese race, it is extremely difficult to form an estimate. Most of the children of such unions are brought up as Burmans and as members of the Buddhist religion. A small minority are brought up strictly as Hindus in the full sense of the term, fulfilling the three requirements necessary to constitute a true member of the Hindu community, namely, membership of a recognised Hindu caste, acknowledgment of the supremacy of the Brahmans, and veneration of the cow. But intermediate between these two classes of persons

Hindu population.

Year.	Population.	Percentage of total population.	Increase.	
			Actual.	Per cent.
1891 ...	173,432	2.28	...	...
1901 ...	285,484	2.75	112,052	65
1911 ...	389,679	3.12	104,195	36

Hindus in Burma, 1901.

Males ...	236,930
Females ...	48,544
Disparity ...	188,386

born of mixed Hindu and Burmese marriages, there is a large and indefinite number of persons who can only be defined by the contradictory term, "Casteless Hindus." The general disintegration of caste in Burma renders such an anomaly possible. Membership of a caste is not essential for the social life of a Hindu, as in India. The large increase in the numbers of Hindus returned as being unable to claim membership of any caste is due partly to the increase in the number of persons of mixed race who have not been brought up as Buddhists, nor as strict Hindus, but have adopted generally Hindu modes of life. In the second generation of this class of Hindus, owing to the small number of females and to familiarity with the people and customs of the country, intermarriage with the Burmese is common, and there is a great probability of their children assuming Burmese race and professing the Buddhist religion. It would be impossible to obtain a quantitative analysis of the portion of the increase of 104,195 Hindus between 1901 and 1911 due to each of the three contributaries, immigration, natural increase among the Hindu population, and the adoption of Hinduism by the children of mixed parentages. The first is a declining factor at the present moment, the second is a small but increasing factor, and the third is probably increasing with the excess of the Hindu male population.

Hindus giving no record of caste.

Year.	Numbers.
1901 ...	58,073
1911 ...	99,707

The distribution of the Hindu population throughout the province is very uneven. About 70 per cent. is to be found in the Deltaic Plains where it forms 6·47 per cent. of the total population. The greatest degree of concentration is to be found in Rangoon where the Hindu community now considerably exceeds the Buddhist community in point of numbers. Generally the percentage of Hindus to the total population varies inversely with the distance from Rangoon, amounting to 10·60 per cent. in the surrounding district of Hanthawaddy, and 8 per cent. in Pegu to 1·24 per cent. in Henzada. In small the Coast Ranges, with a percentage of Hindus amounting to 2·95 of the total population, the distribution is equally varied, ranging from 6·49 per cent. in Amherst District to ·32 per cent. in Kyaukpyu. The low percentage of increase of 5 per cent. between 1901 and 1911 is due to a stationary Hindu population in Akyab District and to actual decreases in the Amherst and Sandoway Districts. In the Central Basin, the number of Hindus (44,022) amounts to only 1·07 of the total population. More than a third of the Hindus in this division are to be found in the Mandalay District.

Distribution of Hindu population.

Area.	Actual numbers, 1911.	Percentage of total population.	Increase per cent., 1901-1911.
Province	**389,679**	**3·21**	**36**
Central Basin ...	44,022	1·07	50
Deltaic Plains ...	280,374	6·47	41
Northern Hill Districts	13,548	2·04	41
Coast Ranges ...	44,344	2·95	5
Specially Administered Territories.	7,391	·49	34

An alternative method of measuring the distribution of the Hindu population in Burma is by utilising the distinction between urban and rural areas. The unevenness of the distribution when considered territorially is largely due to the fact that it is determined by industrial and occupational considerations, rather than by a gradual dispersion of the Hindu immigrants over the province. The marginal statement below illustrates the several aspects of the distribution of the Hindu population considered from the criterion of residence in town or country. The element of comparative uniformity is to be found in the column showing the percentage of the total Hindu population which resides in towns. The variation of such percentage is narrow, ranging from 42·45 per cent. to 58·39 per cent. in the four natural divisions having urban areas with a general percentage for the province of 53·27. This suggests that however irregular may be the distribution of the Hindu population over the different parts of the province, there is a general tendency for it to be divided into two approximately equal portions resident in town and country, respectively. Another method of presenting the fact, of the undue congregation of the Hindu community in towns is that 18·40 per cent. of the total urban population are Hindus, as against 1·66 per cent. of the total rural population for the Hindus resident in rural areas.

It is worthy to note in connection with the question of the distribution of the Hindu population in Burma that the members of the Hindu community of

Rangoon are greater than those of any other religious community in that town. In 1901 the number of Buddhists slightly exceeded the number of Hindus, and they formed 35·60 and 35·33 per cent. respectively of its total population. The balance has now moved decisively in favour of the Hindus who now out-number the Buddhists by 10,883 and comprise 36·94 per cent. of the total population to 33·23 per cent. attained by the Buddhist community. It is the relative diminution of the Buddhist community in Rangoon from 50·03 per cent. to 33·23 per cent. within the past 30 years, during which time the Hindus have increased from 26·74 to 36·94 per cent. of the whole, that has given rise to the theory that the Burmese race is doomed to early extinction by being submerged by the mass of Indian immigration. This theory ignores the fact that the members of the Buddhist races have during that period found outlets for their increasing population in directions far more lucrative, and far more congenial to their temperament, than would have been provided by their concentration in large numbers in Rangoon. The Buddhist races have been extending the cultivation of the province, while the Hindus have been concerned rather with the collection, transformation and export of its crops. It is to this racial division of labour that the comparative decline of the indigenous races of Burma in its principal city must be attributed. The assumption that it is typical of provincial conditions, or that it is capable of indefinite continuation, is contrary to experience, to all records of the population, and to the probabilities of the future development of the province.

Urban and Rural distribution of Hindu population.

Area.	Actual population.		Percentage of		
	Urban.	Rural.	Urban Hindu to total Hindu population.	Urban Hindu to total Urban population.	Rural Hindu to total Rural population.
Province	207,601	182,078	53·27	18·40	1·66
Central Basin ...	25,705	18,317	58·39	6·74	·49
Deltaic Plains ...	150,557	129,817	53·70	26·19	3·46
Northern Hill Districts.	5,752	7,796	42·45	19·12	1·23
Coast Ranges ...	25,587	18,757	57·70	18·00	1·37
Specially Administered Territories.	...	7,391	...	...	·49

Comparison of Buddhist and Hindu populations of Rangoon.

Religion.	Population.		Percentage of total population.	
	1911.	1901.	1911.	1901.
Buddhist ...	97,467	83,631	33·23	35·60
Hindu ...	108,350	82,994	36·94	35·33

Percentage of total population of Rangoon.

Year.	Buddhists.	Hindus.
1881 ...	50·03	26·74
1891 ...	44·28	32·08
1901 ...	35·60	35·33
1911 ...	33·23	36·94

Although the percentages of increase of 65 per cent. and 36 per cent. in the numbers of Hindus in the province are indicative of high though declining rates of increase, the absolute numbers concerned are so small that they make but a slight difference in the proportions of Hindus for the whole province. Between 1881 and 1891 the decline in the proportion of Hindus to the total population was due to the addition of Upper Burma to the census area. In the past two decades the increase has been from 2·28 per cent. to 3·21 per cent., if measured over the whole census area, or to 3·63 per cent., if the disturbance of changing areas is eliminated by reckoning the proportion over Burma Proper only. Whether the higher or the lower percentage be taken, the extent of Hinduism in Burma is very slight in comparison with the numbers of the total population. Its actual significance is even slighter than its numbers would indicate. The 389,679 Hindus, even if forming a homogeneous and aggressive body, strict in their caste observances and conservative in their modes and customs of life, forming as they do less than four per cent. of the total population, would have but littte effect on the national life of the province. But there are no indications whatever that they are capable of making the most of

Percentage of Hindus to total population.

Year.	Census Area.	Burma Proper.
1881 ...	2·36	...
1891 ...	2·28	2·28
1901 ...	2·75	3·03
1911 ...	3·21	3·63
1911 (Rural)	1·66	1·84
1911 (Urban)	18·40	18·40

their small numbers. Their caste system is in a state of disintegration. More than a quarter of their numbers are casteless, to use a term which describes their condition better than the term "outcast." They are without a caste, not because they have been excluded from participation in the benefits of a caste organisation, but because caste has ceased to be a necessary portion of their social and economic equipment. If membership of a caste be considered as an essential condition of inclusion in the term Hindu, then large numbers returned as Hindus in Burma, are Hindus in name only. Indeed, the majority of the Hindus in the province are ripe for absorption by the indigenous Buddhist races. The process is continually in operation, but it is being continually obscured by the large amount of immigration from India. It is not only the casteless portion of the Hindu community which is being assimilated. The excess males, numbering 231,112, are either temporary immigrants or are likely to intermarry with women of Burmese race. In the former case, they do not add to the permanent strength of the Hindu community, and in the latter case, though they may retain their outward adherence to Hinduism, the process of absorption, which may take two or three generations to complete, has already commenced. The continuance of Hinduism in Burma on any but the most limited scale is dependent on a high rate of immigration into the province. It has been seen that during the past few years, the flow of Indian immigration, or rather, the net gain to the province by immigration, has been reduced. Should any development occur by which the amount of immigration should continue to be reduced appreciably, the Hindu community in Burma is not established on a sufficiently stable basis to resist absorption by the Buddhist races. Buddhism arose as a protest against the Brahmanic system of caste, and experience in Burma demonstrates that it operates as a disintegrating influence on the caste of the members of the Hindu community settled in the province. But for the fact that Hinduism has in the past received constant additions to its strength from India, the processes of disintegration and absorption would have proceeded at a more rapid pace. Even fortified by immigration, Hinduism remains a passive rather than an active force in the province. Its numerical strength is far in excess of the real amount of vitality it possesses. Many of its members are Hindus in name only, some having no caste at all, and others claiming castes to which they are not entitled. "Hindu" in Burma is a general term used to denote those persons of Indian birth and parentage who do not belong to other religions, rather than to describe a person holding membership of a recognised caste. It is a negative, or a remainder category, comprising numerous elements not actively belonging to it, except in the negative sense that they can be more easily entered under the designation "Hindu" than under any other term of classification. As such its influence and importance are not proportionate to its numbers.

Hindus in Burma, 1911.	
Males ...	306,700
Females ...	75,588
Disparity ...	231,112

92. **Mahomedanism.**—The Mahomedan population of Burma differs in many important particulars from its Hindu population. Most important of all the points of difference is the resistance offered by Mahomedanism to absorption by the Buddhist races. This is principally manifested in the race and religion of the issue of mixed marriages. Whereas the children of mixed marriages between Hindus and Burmese tend to become assimilated by the Burmese in the first or second generation, the children of mixed marriages between Mahomedans and Burmese, generally adopt the Mahomedan religion, and as members of the Zerbadi community live an independent racial life. One consequence of this is, that whereas the Hindu community is with few exceptions a modern community, the immigration of previous generations having been absorbed by Buddhism, the Mahomedan community has a much more lengthy association with the province. Throughout the whole length of the coast line of Burma, but more especially in the Akyab and Mergui Districts, are to be found indigenous Mahomedans, scarcely differentiated from the neighbouring Arakanese or Burmese in dress and speech and customs, the descendants of immigrants to the province many generations ago, yet who maintain their Mahomedan religion unaffected by the strength of their Buddhist surroundings. In considering the variation of the Hindu population, it was necessary to point out that of the three contributaries to its increase, immigration, natural increase, and intermarriage with the Burmese, the first was the most important factor. But with the Mahomedans, although it is impossible to obtain a quantitative estimate of the three constituent elements

of the increase, it is certain that natural increase among the Mahomedans themselves and intermarriage with the Burmese have far more effect on the variation than is the case with the Hindus. Natural increase by the excess of births over death is greater because the disparity of the sexes is less. In 1901, there were 119,347 Mahomedan females in Burma compared with 48,544 Hindu females at that date, and the natural increase must necessarily have been greater among the Mahomedans, especially as they form a rural and an indigenous population to a greater extent than the Hindus. As for intermarriage with the Burmese, the greater excess of Hindu males giving opportunities for a larger degree of intermarriage, would suggest that of the increases of Hindu and Mahomedan populations by this contributory, that for the Hindus would be the greater. But this *a priori* deduction needs to be discounted by two facts. The first is that a very large proportion of the excess of Hindu males consists of temporary immigrants, who do not intermarry and do not contribute to the increase of population. The second is that of the children of such intermarriages, those of Mahomedan and Burmese parentage with very few exceptions go to increase the numbers of Mahomedans, while only a minority of those of Hindu and Burmese parentage are to be counted as Hindus.

Mahomedan population.

Year.	Population.	Percentage of total population.	Increase.	
			Actual.	Per cent.
1891 ...	253,640	3·33	...	...
1901 ...	339,446	3·28	85,806	34
1911 ...	420,777	3·47	81,331	24

Mahomedans in Burma.

Sex.	1901.	1911.
Males ...	220,099	271,428
Females ...	119,347	149,349
Disparity...	100,752	122,079

Zerbadis in Burma.

Year.	Number.	Increase.
1901 ...	20,423	...
1911 ...	59,729	39,306

Over 52 per cent. of the Mahomedan inhabitants of Burma dwell in the districts of the Coast Ranges where they form 14·72 per cent. of the total population. This high percentage is principally due to the number of Mahomedans in Akyab (186,323) where they comprise 33·66 per cent. or over one-third of the population of the district. Indeed, in this one district, 44 per cent. of the Mahomedans of the province are congregated. Mergui and Amherst Districts also show the comparatively high proportions of 8·81 and 6·22 per cent. of their total population as being Mahomedans. In the Deltaic Plains, only Rangoon, with 18·62 per cent. of its population returned as Mahomedan, rises above the provincial percentage of 3·47. In the Central Basin, the two districts of Mandalay and Yamèthin contribute half the Mahomedan population of the whole division. The increase in the Mahomedan population varies from 17 per cent. in the Coast Ranges to 37 per cent. in the Deltaic Plains, with a provincial increase of 24 per cent. This is about double the natural rate of increase. However, it is difficult to use the term natural rate of increase with respect to a population comprising a large excess of males, who intermarry readily with the women of another community. It is possible by utilising the statistics of the Zerbadi community to demonstrate the large effect produced by intermarriage with the Burmese, on the increase of the Mahomedan population. It is responsible for nearly a half of the total increase for the decade 1901—1911. The remaining increase must be distributed between immigration, and the natural increase of the Mahomedan population not affected by intermarriage. It is impossible to estimate their respective proportions, but it is obvious that compared with the part played by immigration in the increase of the Hindu population, it occupies but a subordinate place in the increase of the Mahomedans of the province.

Distribution of Mahomedan population.

Area.	Actual numbers, 1911.	Percentage of total population.	Increase per cent., 1901-11.
Province	**420,777**	**3·47**	**24**
Central Basin	61,927	1·51	26
Deltaic Plains	127,043	2·93	37
Northern Hill Districts	7,575	1·14	30
Coast Ranges	221,010	14·72	17
Specially Administered Territories.	3,202	·21	35

Actual variation in Mahomedan population, 1901-1911.

Increase of Zerbadis.	39,306
Remaining increase.	42,025
Total increase ..	81,331

In considering the distribution of the Mahomedan population between urban and rural areas, it is necessary to consider separately the figures for the province when Akyab district is included, and when it is omitted. The effect of its large

Mahomedan rural population is so great, that, if included, the rural exceeds the urban population, the latter being only 35·15 per cent. of the total Mahomedan community. If excluded, the urban population is the greater being 58·35 per cent. of the whole. Apart from Akyab district, the Mahomedans dwelling in rural areas do not even amount to one per cent. of the total rural population, but if Akyab be included the percentage rises to 2·48.

Urban and Rural distribution of Mahomedan population.

Area.	Actual population.		Percentage of		
	Urban.	Rural.	Urban to total Mahomedan population.	Urban Mahomedan to total Urban population.	Rural Mahomedan to total Rural population.
Province ...	147,907	272,870	35·15	13·11	2·48
Province (Akyab excluded).	132,376	94,489	58·35	12·14	·90
Central Basin ...	33,669	28,258	8·00	8·84	·73
Deltaic Plains ...	80,138	46,905	19·05	13·90	1·24
Northern Hill Districts.	3,348	4,247	·80	11·12	·66
Coast Ranges ...	30,752	190,258	7·31	21·73	14·60
Specially Administered Territories.	...	3,202	...	...	·21

93. Comparison of Hindu and Mahomedan Populations.—In his Census Report for 1901, Mr. Lowis makes the following comments on the respective rates of increase of the Hindu and Mahomedan communities in Burma :—

"The Hindus have increased within the past ten years at the rate of no less than 63 per cent., and of every ten thousand persons inhabiting Burma Proper, 303 on an average now profess the Hindu faith. The rise of 63 per cent. is lower than that which took place during the preceding decade (77 per cent.), and when compared with the 1872—81 figures (140 per cent.), dwindles into comparative insignificance. As it is, however, it is nearly double the Mahomedan rate of growth during the same decade. Everything points to the fact that the Hindus are gradually asserting their vast numerical superiority, and that, when their prejudices against sea voyages have been overcome, they are bound to outstrip all other competitors. In 1872 the number of Musalmans in British Burma was nearly three times as great as that of Hindus. Year by year during the past thirty years the disparity has been reduced; Census after Census has shown that the Hindus were creeping up. They are still behind the Mahomedans in number, and, so far as one can judge at this stage, they are not likely to have passed them even at the next decennial enumeration, but there seems to be no question that, unless the resources of the country first give out, they will in the end out number them."

Hindus and Mahomedans in Burma.

Year.	Hindus.		Mahomedans.		Excess of Mahomedans.
	Numbers.	Increase.	Numbers.	Increase.	
1891 ...	173,432	...	253,640	...	80,208
1901 ...	285,484	112,052	339,446	85,806	53,962
1911 ...	389,679	104,195	420,777	81,331	31,098

The marginal statement indicates that the same tendencies noted by Mr. Lowis are operating, though with reduced intensity. The Hindu and Mahomedan populations are both increasing at a slower rate than formerly, but the Hindu increase still maintains its lead both absolutely and relatively. It has diminished the superiority of the numbers of Mahomedans, but is still 31,098 behind. It is at present highly questionable whether the same tendencies will continue for the ensuing decade. The changes in migration observable during the past few years, if continued, will affect the Hindu population adversely to a much greater extent than the Mahomedan population is likely to be affected. The Hindu community is less firmly established. Its increase is more dependent on a continuation of a highly abnormal distribution of population which is rapidly being modified. It is more liable to adverse external influences and to internal disintegration. Now that the era of rapid transition succeeding the annexation of Upper Burma has closed, and a period of more steady progress set in, it is probable that the rate of increase of the adherents of the two religions will tend to approximate, and even that the Mahomedans may increase at a more rapid rate than the Hindus. Unless conditions change, it is not probable that the Hindus will be equal to the Mahomedans in numbers by the date of the next census.

94. Christianity.—The number of Christians in Burma on the date of the census was 210,081, an increase of 42 per cent. on the number returned in 1901. This rate of increase is nearly double of the rate of increase for the previous decade.

If allowance be made for the variations of census area, the rates of increase for the two period are almost exactly in the ratio of two to one, being approximately 42 and 21 per cent. respectively. There have been abnormally large rates of increase in the Northern Hill Districts and in the Specially Administered Territories, but these do not represent large actual increases. In 1901, Christianity was the creed of a very small proportion of the inhabitants of these natural divisions, and the large percentages are to be considered merely as indications of favourable progress over new ground. In the older and more settled natural divisions, the rate of increase ranges from 35 per cent in the Deltaic Plains to 46 per cent. in the Coast Ranges. Nearly 79 per cent. of the Christians in the province are to be found in the districts of the natural division termed the Deltaic Plains. This is the only natural division where the number of Christians exceeds one per cent. of the total population, though in a few districts of the other divisions this percentage is exceeded. The percentage of 3·81 for the Deltaic Plains is the resultant of variations in distribution from 9·44 per cent. of the total population in Toungoo to ·89 per cent. in Thatôn. In Rangoon, the percentage is 7·86, and Bassein comes next with 6·33 per cent. But little impression has been made by missionary effort on the compact solid Buddhism of the Central Basin. It is among the Animistic races of the Northern Hill Districts and the Specially Administered Territories, that the most promising field for the spread of Christian doctrine is to be found, and where missionary activity is being increasingly exerted.

Strength of Christianity in Burma.

Area.	Actual numbers.	Percentage of total population.		Increase per cent.	
	1911.	1911.	1901.	1901-1911.	1891-1901.
Whole Province ...	**210,081**	**1·73**	**1·42**	**+ 42**	**+ 22**
Central Basin ...	16,593	·40	·33	+ 37	+ 26
Deltaic Plains ...	165,069	3·81	3·26	+ 35	+ 23
Northern Hill Districts.	3,105	·47	·28	+ 104	...
Coast Ranges ...	14,913	·99	·79	+ 46	− 8
Specially Administered Territories.	10,401	·69	·16	+ 478	...

Christians by Race.

Race.	Number.
European and allied races	13,443
Anglo-Indians	11,106
Indian Christians ...	23,089
Karens	130,271
Burmese	17,446
Shans	9,630
Talaings	1,911
Kachins	1,867
Chinese	424
Arakanese	222
Chins	220
Race not returned ...	452
Total ...	210,081

Of the indigenous races of the province, the Karens have accepted the teachings of Christianity most readily. The number of Karen Christians is 130,271, which is slightly under 12 per cent. of the total Karen population. They form about 62 per cent. of the total number of Christians. Burmese come next with 17,666 Christian converts, a disproportionately small result for the amount of attention and energy spent in Burmese missions. Greater success is being obtained among the Shans, Talaings and Kachins where comparatively new fields of missionary enterprise are being opened out. There are 23,089 Indian Christians, the majority of whom are immigrants from Madras.

Distribution of European and Anglo-Indian population by sect.

Sect.	Europeans.		Anglo-Indians.	
	Actual.	Per cent. of total.	Actual.	Per cent. of total.
Anglican	7,022	52·2	3,713	33·5
Armenian	241	1·8	13	·1
Baptist	759	5·6	957	8·6
Congregationalist ...	1	...	...	...
Greek	47	·4	...	...
Lutheran	69	·6	2	...
Methodist	281	2·1	215	2·0
Presbyterian ...	875	6·5	67	·6
Minor Protestant Denominations.	18	·1	24	·2
Protestant (Unspecified)	311	2·3	113	1·0
Roman Catholic ...	3,594	26·7	5,918	53·3
Sect not returned ...	163	1·2	70	·6
Indefinite Beliefs ...	62	·5	14	·1
Total ...	13,443	100·00	11,106	100·00

The denominational distribution of the 13,443 persons of European and allied races, and of the 11,106 Anglo-Indians, differs widely from the proportionate distribution by denominations of the whole Christian community. Among the Europeans, the Anglicans come first with 7,022 adherents or 52·2 per cent. of the whole, the Roman Catholics following with 3,594 or 26·7

per cent. Next in order come the Presbyterians with 875 or 6·5 per cent., while the Baptists, the largest community in point of numbers in the province, is fourth with 759 or 5·6 per cent. Among Anglo-Indians, the order is modified, the Roman Catholics claiming 5,918 adherents or 53·3 per cent., the Anglicans coming second with 3,713 or 33·5 per cent., and the Baptists third with 957 or 8·6 per cent. The number of members of the remaining denominations are numerically small, both for Europeans and Anglo-Indians.

95. Christian Denominations.—Nearly 97 per cent. of the Christians of the province belong to three main denominations, the Baptist with 58 per cent., the Roman Catholic with 29 per cent., and the Anglican with nearly 10 per cent. of the total. It is satisfactory to note that the efforts of the ministers of religion to secure more definite entries of the exact denomination of the adherents to their faith have resulted in a large diminution in the numbers of doubtful or unspecified entries. In 1901, these amounted to 18,622 entries, even after the Census Superintendent was able to infer from the locality of enumeration what the sect of native Christians probably was, and to show the persons concerned, accordingly. At the census of 1901, the unspecified Christians numbered but 3,363, of whom 2,782 returned themselves as Protestants. With the exception of the three denominations already mentioned, no sect mustered as many as 2,000 adherents, and two only, the Methodists and the Presbyterians numbered more than one thousand. It is important to note with reference to the exceptionally large increase recorded for the Baptist community that Mr. Lowis was of opinion that the bulk of the Christians whose denominations were not returned in 1901 must have been Baptists. The diminution in the numbers of the Anglican community is difficult to reconcile with the decisive advances made by the two other main Christian denominations of the province. It will be considered in greater detail when the numbers of each separate denomination are being separately treated. The sects recorded, which have been entered under the head Minor Protestant Denominations, are Plymouth Brethren, Reformed Church, Swedenborgian, Church of Christ, Christian Scientist, Church of Jerusalem, Seventh Day Adventist, and Bible Christian.

Strength of Christian Denominations.

Sect.	1911.	1901.	Increase or Decrease.
Baptist	122,265	66,860	+55,405
Roman Catholic ...	60,282	37,105	+23,177
Anglican Communion.	20,734	22,307	—1,573
Methodist	1,675	1,238	+437
Presbyterian ...	1,009	620	+328
Lutheran	328	399	—71
Armenian ...	256	256	..
Greek	49	70	—21
Minor Protestant Denominations.	49	48	+1
Congregationalist ...	5	..	+5
Protestant	2,782	...	+2,782
Sect not returned ...	581	18,622	—18,041
Indefinite Beliefs ...	66	...	+66
Total ...	210,081	147 525	62,556

96. The Baptist Community.—The remarkable advance in the recorded figures of the Baptist community for the past decade is due to some extent to an underestimate of the figures for 1901. From the figures it would appear that out of the total increase of 62,556 in the number of Christians, 55,405 or 88 per cent. of the increase was due to Baptists alone. It is probable, however, that the great majority of the 18,622 Christians who were recorded in 1901 without the sect being specified were Baptists. Even allowing for this and reducing the degree of increase by a more correct estimate of the numbers in 1901, the Baptist community would still be marked out as not only the most numerous but also the most progressive of the Christian denominations in Burma. This is to be attributed to the energy and activity of its missionary enterprise. It has 185 missionaries, 71 men and 114 women, in the field. These are distributed over 30 mission stations scattered throughout the province. The principal missions are to the Karens (who form by far the greater majority of the converts), the Burmans, the Shans, the Chins, and the Kachins; but there are also recent extensions among the Was and the Lahus. One element in the success of this community is the Baptist Mission Press, which serves to bring all its sections into close communication with each other and with the central organising bodies. The principal difficulty encountered is a tendency to secession on the part of the Karens, who are prone to escape from central control, and without modifying their faith, to set up independent communities under native leaders. Activity among

Baptist in Burmas.

Year.	Numbers.
1911 ...	122,265
1901 ...	66,860
Increase	55,405

the Burmese is also being countered by a Buddhist revival, which in the form of such societies as the Young Men's Buddhist Association is seeking to confirm the belief of the younger generation of Burmans in their national religion.

97. Roman Catholics.—The second place among the Christian denominations, both in numbers and in rapidity of progress, is occupied by the Roman Catholic community. For the purpose of ecclesiastial control, the province of Arakan has been placed into the Roman Catholic Diocese of Dacca. The remainder of the province is divided into three Vicariates, the Vicariate Apostolic of Southern Burma, the Vicariate Apostolic of Northern Burma, and the Vicariate Apostolic of Eastern Burma. The first two roughly coincide with the divisions of Lower and Upper Burma, respectively. The third extends from the Toungoo District through the Southern Shan States to the Mekong river. The missions in the first two Vicariates are under the supervision of the Society of Foreign Missions of Paris, that in the Eastern Vicariate being under the supervision of the Society of Foreign Missions of Milan. There are 51 mission stations served by 98 missionaries. As with the other denominations the greatest degree of success is obtained among the Karens, but missions to the Burmese, Shans and Kachins are in existence. The greater portion of the Indian Christians to be found in the province belong to the Roman Catholic community.

Roman Catholics in Burma.

Year.	Numbers.
1911 ...	60,282
1901 ...	37,105
Increase	23,17

Roman Catholic Missionary strength.

Vicariate.	Number of	
	Stations.	Missionaries.
Southern Burma ...	29	61
Northern Burma ...	11	22
Eastern Burma ...	11	15
Total ...	51	98

98. Anglicans.—The fact that whereas the two leading Christian communities in the province, the Baptists and the Roman Catholics, have progressed at such a rapid rate, while the figures for the Anglican community have diminished, entails a more detailed examination of the magnitude and locality of the variations in the number of Anglican adherents. The marginal statement indicates the widespread nature of the decline, operating as it has done, in 22 districts of the province, and producing a net decline in four out of five natural divisions. There are two possible explanations of the figures. The first is that the figures for 1901 were unduly enhanced by the inclusion of persons who returned themselves as unspecified protestants. The enhancement of 76 per cent. for Burma Proper, from 12,202 adherents in 1891 to 21,516 in 1901, followed by a slight diminution for the period 1901-1911, indicates that there is a probability that the figures for the mediant enumeration were enhanced by some artificial factor. This is to some extent supported by the wide distribution of the decline now experienced Another possible explanation is that the missionary strength of the Anglican community is not sufficiently great to retain a hold over the converts widely scattered throughout the districts of the province. There are 52 clergy of the Anglican Diocese of Rangoon, but a large proportion of these are engaged in duties as chaplains, or in connection with established congregations. The

Anglican Community.

District and Natural Division.	1911.	1901.	Increase or Decrease.
Province	**20,734**	**22,307**	**−1,573**
Central Basin ...	**3,789**	**4,266**	**−477**
Prome	142	152	−10
Thayetmyo	167	418	−251
Pakokku	56	76	−20
Minbu	63	59	+4
Magwe	69	59	+10
Mandalay	1,761	1,837	−76
Shwebo	811	1,069	−258
Sagaing	124	57	+67
Lower Chindwin ...	67	61	+6
Kyauksè	46	46	...
Meiktila	281	219	+62
Yamèthin	139	147	−8
Myingyan	63	66	−3
Deltaic Plains ...	**14,912**	**15,638**	**−726**
Rangoon	6,511	5,108	+1,403
Hanthawaddy ...	1,631	1,618	+13
Thantawaddy ...	103	754	−651
Pegu	131	430	−299
Bassein	640	1,217	−577
Henzada	130	483	−353
Myaungmya ...	359	428	−69
Ma-ubin	444	707	+355
Pyapòn	618		
Thatòn	73	293	−220
Toungoo	4,272	4,600	−328
Northern Hill Districts.	**644**	**406**	**+238**
Bhamo	331	226	+105
Myitkyina	95	31	+64
Katha	117	46	+71
Ruby Mines ...	80	71	+9
Upper Chindwin ...	21	32	−11
Coast Ranges ...	**1,167**	**1,206**	**−39**
Akyab	130	274	−144
Northern Arakan ...	6	3	+3
Kyaukpyu	4	18	−14
Sandoway	20	102	−82
Salween	4	7	−3
Amherst	320	553	+67
Tavoy	49	44	+5
Mergui	334	205	+129
Specially Administered Territories.	**222**	**791**	**−569**
Northern Shan States	45	46	−1
Southern Shan States	159	729	−570
Pakokku Hill Tracts ...	3	...	+3
Chin Hills	15	16	−1

number devoted solely to mission work is 14 European and 13 Native Clergy, and these are assisted by 15 lady workers. This number is small, compared with the numbers of full time missionaries of the Baptist and Roman Catholic persuasions. The decline has taken effect in the districts where active missionary work is scarcely undertaken. Converts who have migrated from the localities where they entered the Anglican Church, unless they can be kept in close touch with its ministrations, are likely to join other denominations with a more widely distributed missionary activity. The relatively small decline in Toungoo district is to be attributed to secession from the parent body rather than to any diminution in the number of converts.

99. Other Denominations.—The remaining Christian denominations derive their principal strength from the Europeans resident in the province, and to a smaller extent from the Anglo-Indian community. The figures for Methodists include those for the American Methodist Church as well as those for the Wesleyan Methodist Church. The English Wesleyan Mission commenced operations in 1887. It has now eleven missionaries distributed over six mission stations all in Upper Burma. The energies of the mission are largely devoted to educational work among the Burmese and the supervision of the home for lepers at Mandalay. The actual number of native converts returned is 1,179. The Lutheran Mission has one native missionary only, working among the Tamil immigrants from Southern India. The remaining Protestant denominations do not engage in active missionary propaganda.

Denomination.	Numbers.	Percentage of Christian population.		
		European.	Anglo-Indian.	Native.
Methodist ...	1,675	2·1	2·0	·6
Presbyterian ...	1,009	6·5	·6	...
Lutheran ...	328	·6	...	·1
Armenian ...	256	1·8	·1	...
Greek ...	49	·4	...	...
Congregationalist	5	...	...	...

100. Other Religions.—The figures for the remaining religions entered are of no great statistical significance. The number of Sikhs has remained nearly stationary. They form the bulk of the Military Police Force of the province. The increase in the number of Jains is probably due to a better appreciation of the differences between the Jain and the Hindu religion. The remarkable rate of increase in the number of Jews mentioned by Mr. Lowis has continued in operation. They reside principally in the large towns, 750 out of their total numbers of 1,024 dwelling in the City of Rangoon, and 966 in the towns of the Province. Zoroastrianism shows a moderate increase from 245 to 300 as compared with a marked increase from 98 to 245 in the previous decade. The entry of 71 Confucians in the records is due to members of the educated Chinese community in Rangoon returning Confucianism rather than ancestor-worship as their religion.

Religion.	Numbers.	
	1911.	1901.
Sikh ..	6,693	6,596
Jain ..	495	93
Zoroastrian ...	300	245
Jew ...	1,024	685
Confucian ...	71	...

101. Indefinite Beliefs.—There has been a marked, and in some way an extraordinary increase in the number of persons returned as of no religion or as not belonging to any recognised scheme of religion. Of these there were 66 Europeans and Anglo-Indians who were included among the Christians in Imperial Table VI, in order to prevent confusion by separating the members of Christian races. Four persons who recorded their religion as "none" have been included in the term "Atheists". Forty-five Burmese have recorded their religion under the terms Secularist, Rationalist, or Agnostic.

SUBSIDIARY TABLE I.—*General Distribution of the Population by Religion.*

Religion.	Actual Number in 1911.	Proportion per 10,000 of population in				Variation per cent. (increase + decrease −).			Percentage of net Variation.
		1911.	1901.	1891.	1881.	1901-1911.	1891-1901.	1881-1891.	1881-1911.
1	2	3	4	5	6	7	8	9	10
Buddhist—									
Whole Province	10,384,579	8,572	8,862	9,053	8,701	+ 13	+ 33	...	...
Central Basin ...	3,950,305	9,602	9,642	9,631	...	+ 12	+ 9	...	...
Deltaic Plains ...	3,696,354	8,532	8,795	8,980	9,012	+ 12	+ 22	+ 29	+ 92
Northern Hill Districts	516,473	7,792	8,141	...	...	+ 13	...	...	...
Coast Ranges ...	1,110,733	7,399	7,374	7,699	7,802	+ 16	− 3	+ 14	+ 28
Specially Administered Territories.	1,110,714	7,380	8,477	...	...	+ 15	...	...	...
Animist—									
Whole Province	701,473	579	385	221	384	+ 76	+ 137	...	...
Central Basin ...	38,670	94	100	119	...	+ 6	− 8	...	...
Deltaic Plains ...	59,640	137	95	94	220	+ 67	+ 37	− 45	+ 27
Northern Hill Districts	120,354	1,816	1,223	...	...	+ 81	...	...	...
Coast Ranges ...	109,949	733	763	755	690	+ 11	+ 2	+ 26	+ 43
Specially Administered Territories.	372,860	2,478	1,428	...	...	+ 130	...	...	...
Hindu—									
Whole Province	389,679	321	275	228	236	+ 36	+ 65	...	...
Central Basin ...	44,022	107	80	82	...	+ 50	+ 7	...	...
Deltaic Plains ...	280,374	647	531	367	258	+ 41	+ 96	+ 84	+ 409
Northern Hill Districts	13,548	204	177	...	...	+ 41	...	...	...
Coast Ranges ...	44,344	295	325	282	264	+ 5	+ 16	+ 23	+ 50
Specially Administered Territories.	7,391	49	48	...	...	+ 34	...	...	...
Mahomedan—									
Whole Province	420,777	347	328	333	452	+ 24	+ 34	...	...
Central Basin ...	61,927	151	135	132	...	+ 26	+ 11	...	...
Deltaic Plains ...	127,043	293	248	197	173	+ 37	+ 71	+ 47	+ 244
Northern Hill Districts	7,595	114	107	...	...	+ 30	...	...	...
Coast Ranges ...	221,010	1,472	1,457	1,177	1,152	+ 17	+ 25	+ 18	+ 72
Specially Administered Territories.	3,202	21	21	...	...	+ 35	...	...	...
Christian—									
Whole Province	210,081	173	142	159	225	+ 42	+ 22	...	...
Central Basin ...	16,593	40	33	29	...	+ 37	+ 26	...	...
Deltaic Plains ...	165,069	381	326	358	335	+ 35	+ 23	+ 38	+ 131
Northern Hill Districts	3,105	47	28	...	...	+ 104	...	...	...
Coast Ranges ...	14,913	99	79	86	91	+ 46	− 8	+ 10	+ 48
Specially Administered Territories.	10,401	69	16	...	...	+ 478	...	...	...

SUBSIDIARY TABLE II.—*Distribution by Districts of the main religions.*

District and Natural Division.	Number per 10,000 of the population who are																			
	Buddhists.				Animists.				Hindus.				Mahomedans.				Christians.			
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I.—Central Basin ...	**9,602**	**9,642**	**9,631**	...	**94**	**100**	**119**	...	**107**	**80**	**82**	....	**151**	**135**	**132**	...	**40**	**33**	**29**	...
Prome ...	9,498	9,603	9,617	9,718	245	236	236	181	136	71	66	30	93	72	63	55	26	17	17	15
Thayetmyo ...	9,186	9,102	9,063	8,766	614	635	690	831	88	98	101	154	87	101	86	109	23	37	58	139
Pakôkku ...	9,857	9,884	9,768	...	84	54	122	...	28	27	59	...	22	20	43	...	7	5	7	...
Minbu ...	9,621	9,677	9,667	...	218	234	249	...	100	35	43	..	40	39	31	...	6	8	6	...
Magwe ...	9,832	9,897	9,897	...	11	31	18	...	83	26	33	...	51	26	33	..	15	6	10	...
Mandalay ...	8,654	8,901	9,112	...	44	26	40	...	472	366	260	...	612	555	494	..	193	119	82	...
Shwebo ...	9,677	9,695	9,517	...	3	4	6	...	64	55	155	...	177	151	250	...	77	86	58	...
Sagaing ...	9,817	9,865	9,845	...	3	3	1	...	56	32	51	...	90	65	57	...	32	30	38	...
Lower Chindwin ...	9,926	9,923	9,950	...	2	2	2	...	24	33	16	...	28	28	18	...	9	7	1	...
Kyaukse ...	9,540	9,672	9,690	...	1	4	3	...	57	48	42	...	350	243	247	..	48	31	15	...
Meiktila ...	9,712	9,803	9,863	...	3	6	5	...	105	65	54	...	152	104	61	..	24	20	15	...
Yamêthin ...	9,370	9,429	9,409	...	79	110	95	...	122	87	104	...	359	321	331	...	58	41	31	...
Myingyan ...	9,913	9,950	9,902	...	4	6	6	...	40	19	39	...	34	19	34	...	7	5	17	...
II.—Deltaic Plains ...	**8,532**	**8,795**	**8,980**	**9,012**	**137**	**95**	**94**	**220**	**647**	**531**	**367**	**258**	**293**	**248**	**197**	**173**	**381**	**326**	**358**	**335**
Rangoon ...	3,323	3,560	4,428	5,003	246	313	27	2	3,694	3,533	3,208	2,674	1,862	1,831	1,599	1,577	786	721	703	725
Hanthawaddy ...	8,303	8,713	9,309	9,539	87	60	40	11	1,060	815	319	185	302	247	175	95	234	153	155	169
Tharrawaddy ...	9,544	9,570	9,724	9,727	54	26	53	77	170	213	82	71	89	79	48	40	139	109	91	84
Pegu ...	8,613	9,995	9,286	...	125	51	37	...	800	548	305	....	172	140	111	...	287	264	165	...
Bassein ...	8,867	8,892	9,141	8,663	46	51	35	539	268	321	138	124	184	163	122	126	633	571	563	547
Henzada ...	9,567	9,674	9,682	9,801	27	7	2	4	124	88	70	22	87	62	57	37	193	167	187	135
Myaungmya ...	8,974	9,306	}		87	31	}		183	79	}		212	132	}		542	451	}	
Ma-ubin ...	9,266	} 9376	} 9505	9,654	54	} 54	} 27	10	176	} 235	} 87	25	159	} 114	} 82	58	343	} 220	} 298	242
Pyapôn ...	8,954				139				474				138				284			
Thatôn ...	9,119	9,327	9,114	9,240	142	28	482	580	403	383	198	56	245	200	84	50	89	60	119	73
Toungoo ...	7,829	8,115	7,610	7,295	637	561	547	979	405	193	188	162	181	151	157	152	944	978	1,495	1,411
III.—Northern Hill Districts.	**7,792**	**8,441**	...	...	**1,816**	**1,223**	...	...	**204**	**177**	...	....	**114**	**107**	....	...	**47**	**28**	....	...
Bhamo ...	4,961	5,076	...	...	4,426	3,347	...	...	153	183	...	..	208	292	...	...	165	100	...	...
Myitkyina ...	3,525	5,100	...	...	5,382	3,762	...	...	723	827	...	...	222	229	...	...	66	34	...	...
Katha ...	9,543	9,538	...	...	307	327	...	...	72	70	...	...	58	53	...	...	19	9	...	...
Ruby Mines ...	7,935	7,920	8,981	...	1,667	1,726	488	...	249	226	296	...	119	87	115	...	20	20	103	...
Upper Chindwin ...	9,602	9,724	...	...	218	129	...	...	104	72	...	...	63	50	...	...	10	15	...	...
IV.—Coast Ranges ...	**7,399**	**7,374**	**7,699**	**7,802**	**733**	**763**	**755**	**690**	**295**	**325**	**282**	**264**	**1,472**	**1,457**	**1,177**	**1,152**	**99**	**79**	**86**	**91**
Akyab ...	5,708	5,814	6,204	6,395	639	658	677	561	273	290	235	245	3,366	3,221	2,862	2,767	11	15	21	31
Northern Arakan ...	807	738	823	1,490	8,915	9,054	8,913	8,339	255	201	250	157	19	5	12	3	3	1	1	10
Kyaukpyu ...	8,970	8,923	8,864	8,957	796	828	847	730	32	24	18	15	196	217	262	284	5	7	8	4
Sandoway ...	8,858	8,734	8,814	8,820	645	715	707	763	37	61	23	19	414	430	405	392	45	68	50	5
Salween ...	4,393	3,645	1,375	1,699	5,379	6,204	8,485	8,243	58	57	55	13	87	44	66	35	82	49	18	10
Amherst ...	8,423	8,326	8,624	8,790	118	65	193	19	649	844	584	552	622	600	453	477	185	160	145	161
Tavoy ...	9,572	9,606	9,750	9,670	102	90	10	42	62	50	34	29	115	102	84	97	148	150	121	161
Mergui ...	8,041	8,664	8,583	8,402	367	198	256	502	302	86	116	48	881	802	717	730	407	248	327	317
V.—Specially Administered Territories.	**7,380**	**8,477**	...	...	**2,478**	**1,428**	...	...	**49**	**48**	...	...	**21**	**21**	....	...	**69**	**16**	....	...
Northern Shan States	7,309	9,566	...	...	2,600	216	...	...	56	127	...	...	27	46	...	...	7	8	...	...
Southern Shan States	8,610	9,043	...	...	1,223	906	...	...	36	12	...	...	20	13	...	...	109	19	...	...
Pakôkku Hill Tracts	13	....	...	...	9,923	...	...	...	58	....	...	....	3	....	...	....	2	....	...	...
Chin Hills ...	7	31	...	...	9,816	9,775	...	...	113	118	...	...	12	11	...	....	19	3	...	...

SUBSIDIARY TABLE III.—*Christians, Number and Variation.*

District and Natural Division.	Actual number of Christians in				Variation per cent.			
	1911.	1901.	1891.	1881.	1901-1911.	1891-1901.	1881-1891.	1881-1911.
1	2	3	4	5	6	7	8	9
Whole Province	210,081	147,525	120,922	84,219	+ 42	+ 22	+ 44	+ 149
I.—Central Basin ...	*16,593*	*12,105*	*9,631*	...	+ *37*	+ *26*	...	...
Prome	971	625	616	484	+ 55	+ 1	+ 27	+ 100
Thayetmyo	592	881	1,465	2,349	— 33	— 40	— 37	— 75
Pakôkku	284	193	200	...	+ 47	— 3	...	...
Minbu	150	199	135	..	— 25	+ 47	...	...
Magwe	482	151	239	..	+ 219	— 37	...	...
Mandalay	6,571	4,389	3,065	..	+ 50	+ 43	...	...
Shwebo	2,746	2,493	778	...	+ 10	+ 220	...	...
Sagaing	1,013	858	1,304	...	+ 18	— 34	...	...
Lower Chindwin ...	297	188	38	...	+ 58	+ 395	...	...
Kyauksè	679	438	190	...	+ 55	+ 130	...	...
Meiktila	678	508	320	...	+ 33	+ 59	...	...
Yamèthin	1,813	1,002	686	...	+ 81	+ 46	...	...
Myingyan	317	180	595	...	+ 76	— 70	...	..
II.—Deltaic Plains ...	*165,069*	*121,885*	*98,800*	*71,298*	+ *35*	+ *28*	+ *38*	+ *131*
Rangoon	23,054	16,930	12,678	9,741	+ 36	+ 33	+ 30	+ 137
Hanthawaddy ...	12,647	7,440	4,158	7,227	+ 70	+ 79	— 42	+ 75
Tharrawaddy ...	6,052	4,301	3,170	2,363	+ 41	+ 36	+ 34	+ 156
Pegu	12,316	8,978	4,970	...	+ 37	+ 80	...	...
Bassein	27,927	22,376	26,761	21,324	+ 25	— 16	+ 25	+ 31
Henzada	10,285	8,085	7,137	4,308	+ 27	+ 13	+ 66	+ 139
Myaungmya	18,157	13,676	} 13,306	} 6,894	+ 33	...	} + 93	+ 421
Ma-ubin	10,474	} 10,686			+ 66	} + 83		
Pyapôn	7,191							
Thatôn	3,738	2,083	2,366	1,250	+ 79	— 12	+ 89	+ 199
Toungoo	33,138	27,330	24,246	18,181	+ 21	+ 13	+ 33	+ 82
III.—Northern Hill Districts	*3,105*	*1,508*	*1,286*	...	+ *106*	+ *22*	...	...
Bhamo	1,785	784	} 819	...	+ 127	— 4	...	...
Myitkyina	566	161			+ 251	— 80	...	...
Katha	383	153	72	...	+ 150	+ 112	...	...
Ruby Mines	198	176	269	...	+ 12	— 34	...	...
Upper Chindwin ...	173	234	76	...	— 26	+ 208	...	...
IV.—Coast Ranges ...	*14,913*	*10,228*	*11,101*	*10,088*	+ *46*	— *8*	+ *10*	+ *48*
Akyab	605	720	893	1,114	— 16	— 19	— 20	— 45
Northern Arakan ..	7	3	1	15	+ 133	+ 200	— 93	— 53
Kyaukpyu	95	121	136	54	— 21	— 11	+ 152	+ 76
Sandoway	460	528	385	31	— 13	+ 37	+ 1,142	+ 1,384
Salween	384	185	58	31	+ 107	+ 219	+ 87	+ 1,139
Amherst	6,824	4,805	6,062	5,680	+ 42	— 21	+ 7	+ 20
Tavoy	1,999	1,651	1,149	1,368	+ 21	+ 43	— 16	+ 46
Mergui	4,539	2,215	2,417	1,795	+ 105	— 8	+ 35	+ 153
V.—Specially Administered Territories.	*10,401*	*1,799*	...	...	+ *478*	...	...	...
Northern Shan States	348	238	} 154	...	+ 46	+ 54	...	...
Southern Shan States	9,810	1,528			+ 542	...	...	...
Pakôkku Hill Tracts	4	...	...	...	...	...	...	...
Chin Hills	231	33	...	...	+ 600	...	...	...

SUBSIDIARY TABLE IV.—*Races and Sects of Christians.*

Sect.	European.		Anglo-Indian.		Native.		Total.		Variation + or −
	Male.	Female.	Male.	Female.	Male.	Female.	1911.	1901.	
1	2	3	4	5	6	7	8	9	10
Provincial Total	10,014	3,419	6,039	5,067	94,980	90,562	210,081	147,525	+62,556
Anglican Communion	5,408	1,614	2,062	1,651	5,209	4,790	20,734	22,307	−1,573
Armenian	151	90	13	...	...	2	256	256	...
Baptist	467	292	541	416	60,745	59,804	122,265	66,860	+55,405
Congregationalist ...	1	...	...	...	4	...	5	...	+5
Greek	39	8	...	...	2	...	49	70	−21
Lutheran	61	8	2	...	153	104	328	399	−71
Methodist	202	79	102	113	670	509	1,675	1,238	+437
Minor Protestant Denominations.	7	11	10	14	4	3	49	48	+1
Presbyterian ...	739	136	39	28	36	31	1,009	620	+389
Protestant (unspecified).	267	44	63	50	1,190	1,168	2,782	...	+2,782
Roman Catholic ...	2,501	1,093	3,156	2,762	26,746	24,024	60,282	37,105	+23,177
Sect not returned ..	122	41	39	31	221	127	581	18,622	−18,041
Indefinite Beliefs ...	49	3	12	2	...	...	66	...	+66

SUBSIDIARY TABLE V.—*Distribution of Christians per mille*—(a) *Races by Sect, and* (b) *Sects by Race.*

Sect.		Races distributed by Sect.				Sects distributed by Race.		
		European.	Anglo-Indian.	Native.	Total.	European.	Anglo-Indian.	Native.
1		2	3	4	5	6	7	8
Name.	Number of members.							
Anglican Communion	20,734	522	335	54	99	339	179	482
Armenian	256	18	1	...	1	941	51	8
Baptist	122,265	56	86	650	582	6	8	986
Congregationalist ...	5	...	...	...	...	200	...	800
Greek	49	4	...	...	...	959	...	41
Lutheran	328	6	...	1	2	210	6	784
Methodist	1,675	21	20	6	8	168	128	704
Minor Protestant Denominations.	49	1	2	...	...	367	490	143
Presbyterian	1,009	63	6	...	5	867	66	67
Protestant (unspecified)	2,782	23	10	13	13	112	41	847
Roman Catholic ...	60,282	267	533	274	287	60	98	842
Sect not returned ...	581	12	6	2	3	281	120	599
Indefinite Beliefs ...	66	5	1	...	...	816	...	184

SUBSIDIARY TABLE VI.—*Religions of Urban and Rural Populations.*

Natural Division.	Number per 10,000 of Urban population who are						Number per 10,000 of Rural population who are					
	Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.	Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13
Whole Province... ...	6,149	220	1,840	1,311	418	62	8,820	616	166	248	148	2
Central Basin ...	7,988	114	674	884	284	56	9,769	92	49	73	16	...
Deltaic Plains ...	5,148	241	2,619	1,390	544	58	9,050	122	346	124	356	2
Northern Hill Districts.	5,228	1,057	1,912	1,112	262	429	7,918	1,851	123	66	36	6
Coast Ranges ..	5,470	243	1,800	2,173	302	12	7,593	784	137	1,400	86	...
Specially Administered Territories.	...	...	...	...	...	...	7,381	2,477	49	21	69	3

CHAPTER V.

Age.

102. Age Statistics and their accuracy.—The statistics for the age of the people of Burma are contained in the two parts of Imperial Table VII. Part A gives the ages for Burma Proper, for the Specially Administered Territories and for the whole province, by separate years from the ages 0 to 5, and thence by quinquennial periods till the age of 70. Part B gives for individual districts, the ages of the population in quinquennial age periods from 0 to 20, and thence by the periods 20 to 40, 40 to 60, and 60 and over. Imperial Tables VIII, XII, XIV and XVIII, also give information concerning different aspects of the distribution of population arranged by ages, and these tables are supplemented by a series of eleven subsidiary tables appended to this chapter, as follows :—

Subsidiary Table I.—Age distribution of 100,000 of each sex by annual age periods.

Subsidiary Table *IA.*—Adjustment of age distribution of 100,000 males by Bloxham's method.

Subsidiary Table *IB.*—Adjustment of age distribution of 100,000 females by Bloxham's method.

Subsidiary Table *IC.*—Age distribution of 100,000 Buddhists of each sex calculated by Mr. Hardy from the Census Tables of 1901.

Subsidiary Table II.—Age distribution of 10,000 of each sex in the Province, and each natural division.

Subsidiary Table III.—Age distribution of 10,000 of each sex in each main religion.

Subsidiary Table IV.—Age distribution of 1,000 of each sex in certain races.

Subsidiary Table V.—Proportion of children under 10 and of persons over 50 to those aged 15—40, also of married females aged 15—40, per 100 females.

Subsidiary Table VI.—Variation in population at certain age-periods.

Subsidiary Table VII.—Reported birth-rate by sex and Natural Divisions.

Subsidiary Table VIII.—Reported death-rate by sex and Natural Divisions.

Subsidiary Table IX.—Reported death-rate by sex and age in decade and in selected years, per mille living at same age, according to the Census of 1901.

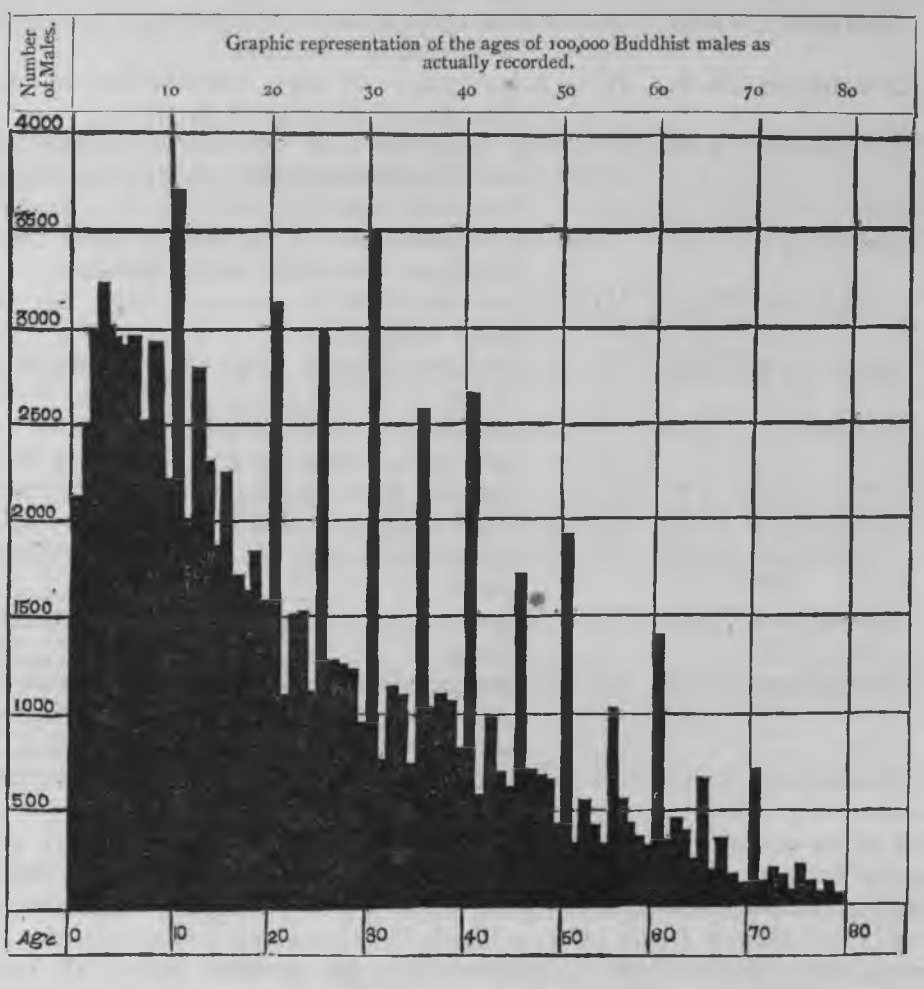
Subsidiary Table X.—Reported deaths from certain diseases, per mille of each sex.

As to the accuracy of the age statistics, it is generally conceded that the returns for India generally are much wanting in accuracy, and that the returns for Burma possess a somewhat higher degree of accuracy. The same general sources of inaccuracy are to be found both in Burma and India, with the addition in Burma, of exemption from Capitation Tax for persons below 18 years and above 60 years of age. The tendency to give certain ages such as multiples of 5 and 10 was examined by Mr. Lowis in the Census Report for 1901, and he found that though there was in Burma a marked preference for such ages, it did not exist to the same extent as in India. From a review of the recorded ages, it would appear that the assessment of the adult males in the province to Capitation Tax does not have much effect at the commencement of the period of assessment, but from a study of Bloxham's curve for males given to illustrate paragraph 104 below, the tendency to under-estimate the ages of males for some time prior to the attainment of the age of eighteen becomes apparent.

Towards the end of the assessment record, the exemption at 60 years of age is an influence in the enhancement of the reputed age over the true figure. From 55 onwards, the age of the Burman advances by as much as two years for one until exemption is achieved. Another disturbance is caused by the universal tendency to give the age of children somewhat over the true age.

A child is considered to be a one-year child long before the first twelve months of its life have been completed. The distinction between the first year of its life and the attainment of one year's completed life, is not sufficiently established in the minds of the mass of the people to enable the returns for children below one year of age and between one and two years to be accepted with accuracy. This over-statement of age continues with diminishing intensity during succeeding years, a child being considered to be two years old before the actual attainment of two years completed life. Three years is a very favourite age, being retained by many children from about two and a half years of age till nearly four. After this period, the tendency to give the ordinal number of the year of age (first, second, third, fourth, etc.) instead of the cardinal number of completed years, though still operating, has a smaller effect on the statistics. It is in the commencing years of the disturbance that the operation of a general tendency to enhancement is most manifest. In the succeeding years, it is modified by the fact that as the over-estimate of age for two succeeding years will be approximately the same, it does not enter to any great extent into the numbers for the intervening year of age.

103. Graphic test of the accuracy of the statistics.—



Subsidiary Table I gives the recorded age of 100,000 Buddhists of each sex, the numbers being taken from several typical charges in Upper and Lower Burma. The exclusion of persons of other religions eliminates the disturbance of the age distribution, due to the preponderance of persons from adult to middle age among the immigrant races. If this age return could be relied on, then as the Buddhist population is highly progressive, the greatest number should be returned at the age of 0-1, and the numbers should progressively decrease with each succeeding age period. The best method of exhibiting the want of accuracy in the return is by the diagram at the head of this paragraph, which is a graphic presentation of the figures for males only, up to 80 years of age, as given in Subsidiary Table I. The base line is divided into 80 sections each representing one annual age period. The figures to the left of the diagram are to measure the numbers of males recorded at each age, the height of the column representing

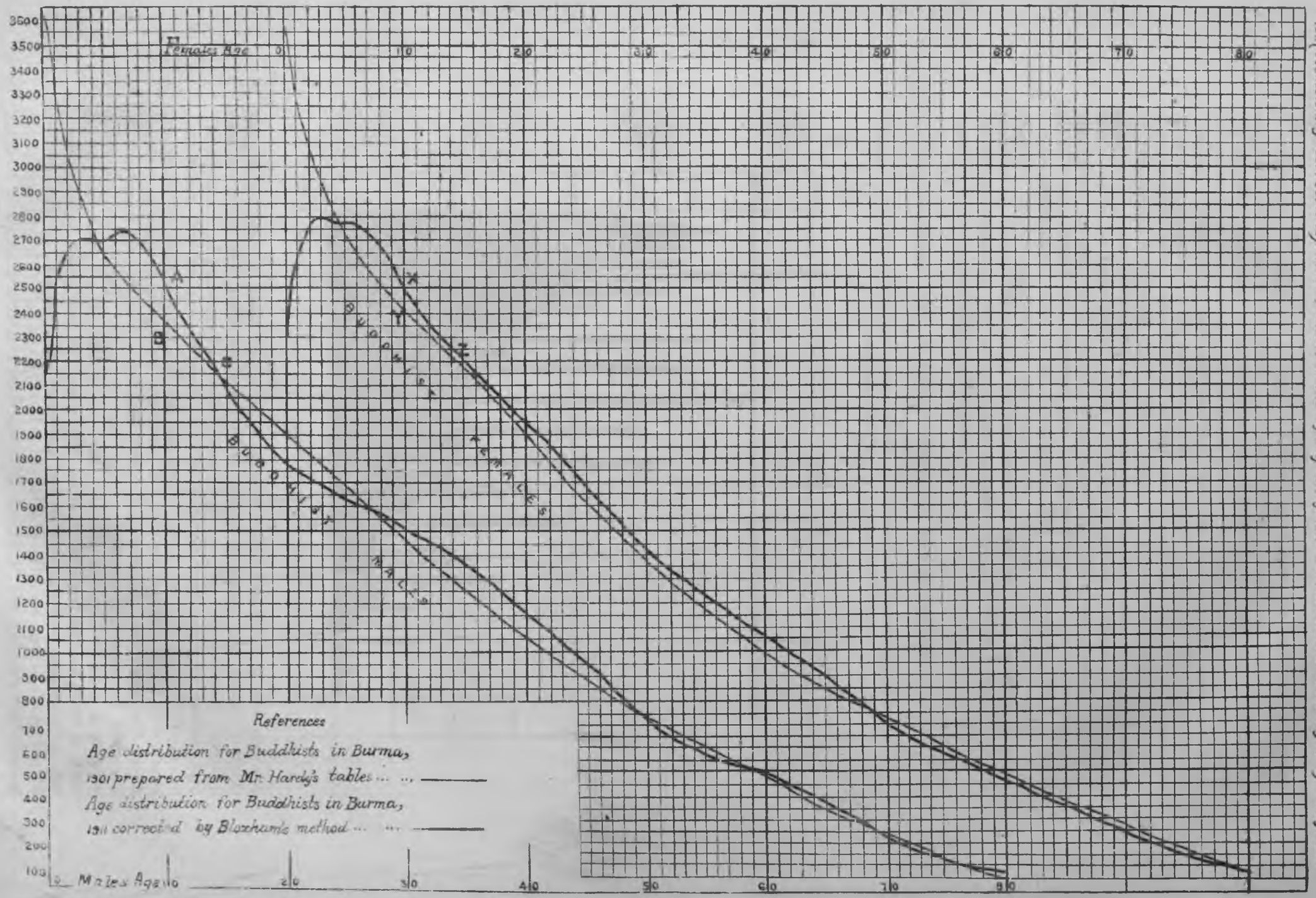


Diagram illustrating corrected age distribution of Buddhists for 1901 (actuarial calculation) and 1911 (elementary corrections). Males, curves to the left of diagram. Females curves to the right of diagram.

the number of males, per 100,000 of the total number, of the age represented by its base. A true record of the ages should have produced a diagram of a totally different nature. The blocked portion should have descended by a series of steps from left to right. The steps would not be uniform, the descent on the left of the diagram starting rather steeply and growing less steep with increasing age. The diagram graphically convicts the returns of inaccuracy, in the following respects :—

(i) deficit in the numbers of persons in each age period from 0 to 3.
(ii) undue excess in the persons returned for the ages 3, 10, 20, 25, and all subsequent multiples of five years.
(iii) undue depressions in the years before and after each age in the quinquennial series from 10 years upwards.

The most unpopular age years are those ending with the digits 1, 4 and 9.

104. Elementary correction of errors of age statistics.—It is possible to eliminate the errors due to the selection of favourite years in returning ages by a process of averages called "smoothing by Bloxham's method." As the irregularities are chiefly for five-year and ten-year age periods, two processes are necessary, the first to eliminate the tendency to give ages as multiples of five and the second to eliminate the more marked tendency to give ages as multiples of ten. The first is effected by averaging the ages given for periods of five years, taking in addition to the year under consideration, the figures for the two years prior to and two years subsequent to it. An elementary modification is needed for the two first and the two last years of the series. The second is effected by averaging the modified ages resulting from this correction, over periods of eleven years, five years prior to, and five years subsequent to, the year under consideration. The results of these eliminations of the main source of error in the age returns for Buddhist males are given in Subsidiary Table IA, and for Buddhist females in Subsidiary Table IB. But though this eliminates the errors due to a preference for certain ages, and though it is a far more correct presentation of the real ages of the population than is given in Subsidiary Table I, or in the diagram illustrating paragraph 103, there still remain considerable errors uncorrected. The principal of these is the over-estimation of the ages of children and the consequent deficit in the numbers of children in the earlier ages. This overestimation is not peculiar to Burma. In his Memorandum on the Age Tables and Rates of Mortality of the Indian Census of 1901, Mr. Hardy states that the progression of the age figures in most of the provinces would appear to be fairly normal, if the assumption is made that one-half of those actually between the ages of one and two were returned at age 2 to 3, and that at subsequent ages up to 5, about 50 per cent. of the ages returned are ages next birthday instead of last birthday. The peculiarity of the age returns for Burma is that the over-estimation of age commences earlier than in the provinces of Bombay, Bengal, Madras and the North-West Provinces. In these provinces, the numbers returned at age one are either less than, or very little more than, one-half of those returned between 0 and 1, whereas in Burma the age return for 0 to 1 differs but slightly from that from 1 to 2.

The age statistics as recorded for Burma are being examined by an eminent English actuary, Mr. T. G. Ackland, F.I.A.; but his conclusions are not available for incorporation in the Census Report. In the absence of his report, the age returns for 1911 can be compared with the corrected age returns per 100,000 of the population, as calculated by Mr. Hardy from the census records of 1901. These are given in Subsidiary Table IC. and comparisons can be made between the figures for this table and those for the uncorrected ages recorded in 1911 (Subsidiary Table I), and for the ages for 1911 corrected to a closer approximation to reality by Bloxham's method (Subsidiary Tables IA and IB). The appended diagrams are a graphical representation of the latter comparison. The two intersecting curves on the left represent the numbers of Buddhist males at each age period from 0 to 80 years of age. The heavy curve represents the numbers for 1911 corrected by the simple method of averages over five and ten year periods. The fine curve represents the numbers for 1901 after an actuarial correction based on a consideration of the census tables for previous years, and the rates of mortality deduced from special observations in well defined areas. The two intersecting curves to the right represent similar age calculations for Buddhist females. The age periods for males are placed at the foot, and those for females are placed at the head of the diagram.

The most noticable feature of the comparison of the two curves is the marked discrepancy shown between the numbers of children at the earlier ages as given by the two calculations. According to Mr. Hardy's calculations, there should be 3,657 males and 3,593 females per 100,000 of each sex under one year of age. Subsidiary Table I, which gives the recorded ages of 100,000 of each sex from certain selected charges shows only 2,131 males and 2,251 females under one year of age from the same population. The discrepancy would not have been quite so great if instead of taking 100,000 persons of each sex from the selected charges, the proportions had been worked out from the total records for the province. Subsidiary Table III shows that the number of infants recorded under one year of age for the whole province is proportionately somewhat greater than those recorded for the selected charges. The over-estimation of the ages of children, leading to the record of a smaller number of children at the earlier ages, operates effectively till the age of four in the case of both sexes. From that year the numbers of males and females at each age period, corrected by the elementary method of averages, is greater than the probable numbers as deduced by actuarial calculations This enhancement of the number of persons from five years and upwards over the probably true numbers is the inevitable result of the under record for the years preceding five years of age. In the case of females the recorded ages are on an average above the probable true number of females from the age of five till the age of 47, after which period the average recorded numbers of females remain below the probable true numbers. In the case of males, the variations of the average recorded numbers from the probable true numbers are much greater. The excess from the age of five continues until the age of fourteen; thence, probably in anticipation of the Capitation Tax assessment at the age of eighteen, the average recorded numbers fall below the probable true numbers, continuing below till the age of twenty-seven. From twenty-eight to forty-nine, the recorded numbers remain above the true numbers, falling below them at that age until the approach of the Capitation Tax exemption age of 60 approaches, when the average recorded numbers again rise above the probable true numbers.

It is obvious that the age returns as recorded, and even as corrected by the elementary process of averaging over periods of five and ten years, are not sufficiently accurate to be taken as the basis of any detailed conclusions. The preparation of life tables from the age returns is an actuarial operation of the most technical and complicated character. It is necessary to await the Actuary's report and calculations, before any but the most general deductions from the ages recorded can be drawn. Quite apart from the want of accuracy in the age returns, the investigation of the age distribution of the people of Burma is a matter of great intricacy. If the returns are examined for the Province as a whole, the successive extensions of the census area renders a survey over more than one census period unreliable, and if they are examined by natural divisions, the age distribution is complicated by the large amount of internal migration, and the irregular distribution of immigrants from beyond the limits of the Province.

Age distribution of Indian Population.

Age.	Indian Population.		
	Total.	Non-Immigrant.	Immigrant.
1	2	3	4
0—1	12,530	7,739	4,791
1—2	12,407	7,585	4,822
2—3	16,416	9,143	7,273
3—4	17,597	10,381	7,216
4—5	15,281	9,332	5,949
0—5	74,231	44,180	30,051
5—10	67,945	43,743	24,202
10—15	57,694	38,479	19,215
15—20	72,797	30,254	42,543
20—25	114,921	26,587	88,334
25—30	121,940	25,156	96,784
30—35	103,939	24,192	79,747
35—40	62,075	20,066	42,009
40—45	55,623	18,116	37,507
45—50	25,287	12,670	12,617
50—55	26,506	12,262	14,244
55—60	9,560	7,816	1,744
60—65	13,135	9,018	4,117
65—70	4,277	4,226	51
70 and over	7,853	7,319	534
Total ...	817,783	324,084	493,699

105 Age Distribution of Immigrant Population.—The presence of a large number of immigrants from India, among whom persons from adult to middle age greatly preponderate, affects the age distribution of the population as a whole to a considerable extent. The following method enables the amount of disturbance from this source to be estimated. The non-immigrant population can be roughly estimated by deducting the number of persons born in India, as given in Imperial Table XIII, from the total number of Hindus and Mahomedans, as shown in Imperial Table VI. Assuming that the age distribution of the established, or non-immigrant Indian population, in Burma is proportionately the same as that of the Buddhists, the age distribution of the immigrant

population can be estimated. In the first marginal statement, column 2 gives the actual age distribution of the Hindus and Mahomedans resident in Burma. Column 3 gives the age distribution of the established Indian population, calculated on the assumption that it is proportionate to the age distribution of the Buddhist population. The difference in column 4 gives a fair estimate of the ages of the 493,669 Indian immigrants into Burma. Up to the age of 15, the small numbers of young immigrants is clearly apparent. From 15 to 20, the number of immigrants approaches the proportions of the established population. From 20 to 45, the proportions of immigrants are largely in excess of the proportions of the established population, the excess culminating in the age period 25 to 30. From 45 onwards the death-rate operating among the immigrants, and the comparatively small numbers arriving over that age, reduces the proportions of immigrants much below the proportions of the established population. The second marginal statement exhibits the difference in the proportional age distribution of the Buddhists, who may be taken as typical of the established population, and of the immigrant Indians. It is possible to estimate the extent of the disturbance produced by the immigrant population by comparing the age-distribution of the total population with that for Buddhists only. As the great majority of the immigrants are males, the difference can best be considered by keeping the figures for the two sexes separate. The third marginal statement shows the extent to which the proportions of males below 20 years of age and above 45 years of age are diminished by immigration, while the proportions between the ages of 25 are increased from the same cause. The same uniformity is not apparent in the figures for females, partly because their numbers are so small that they do not affect the proportions to the same extent, and partly because adult female immigrants are accompanied by their children. It is quite natural to expect that an immigration of women, which was operative principally in increasing the proportions of females between 20 and 30 years of age, should be accompanied by an increase in the proportions of children between 1 and 5 years of age, and this is exactly what the figures indicate. The children accompanying female immigrants are of both sexes, and the probability is that they are in approximately equal proportions; but whereas the number of male immigrant children compared with the number of male immigrants is exceedingly small, the number of female immigrant children would form a high proportion of the total number of female immigrants.

Age distribution of 10,000 Buddhists and Immigrant population.

Age.	Buddhist.	Immigrant.	Difference.
0—5	1,363	609	—754
5—10	1,350	490	—860
10—15	1,187	389	—798
15—20	934	862	— 72
20—25	820	1,789	+963
25—30	776	1,960	+1,184
30—35	747	1,615	+868
35—40	619	851	+232
40—45	559	760	+201
45—50	391	256	—135
50—55	379	289	— 90
55—60	241	35	—206
60—65	278	83	—195
65—70	130	11	—119
70 and over	226	1	—225

Difference between age distribution, per 10,000, of the general population and of Buddhists only.

Age.	Males.			Females.		
	Total population.	Buddhists.	Difference	Total population.	Buddhists.	Difference
1	2		4	5	6	7
0—1	218	234	—16	241	243	— 2
1—2	217	233	—16	236	235	+ 1
2—3	266	280	—14	289	284	+ 5
3—4	302	321	—19	323	320	+ 3
4—5	269	286	—17	291	290	+ 1
0—5	1,272	1,354	—82	1,380	1,372	+ 8
5—10	1,276	1,355	—79	1,341	1,344	— 3
10—15	1,163	1,236	—73	1,126	1,140	—14
15—20	893	899	— 6	967	966	+ 1
20—25	857	775	+82	884	864	+20
25—30	860	760	+100	810	792	+18
30—35	846	767	+79	737	727	+10
35—40	677	656	+21	578	584	— 6
40—45	594	566	+28	557	552	+ 5
45—50	399	409	—10	365	374	— 9
50—55	370	373	— 3	384	384	...
55—60	223	241	—18	231	242	—11
60—65	263	278	—15	272	278	— 6
65—70	124	133	— 9	122	128	— 6
70 and over	183	198	—16	246	253	— 7

106. General Review of Age Distribution.—The age distribution of the population in 1911 corresponds generally to what might have been anticipated from the age distribution of the two previous decades, and from a consideration of

the conditions of the past decade. Thus, there is a diminution in the proportionate number of children under five years of age, due in all probability to the cessation of the era of rapid expansion, which was observable about the middle of the period 1901—1911. The age periods 5 to 10, 10 to 15, and 15 to 20, show increases in their proportionate numbers, corresponding to the era of rapid expansion, after the settlement of Upper Burma, and during the colonisation of the delta districts. The decrease in the proportionate population between the ages 20 and 40, from 3,210 to 3,125 per 10,000, during the decade 1901 to 1911, is foreshadowed by decreases in the proportions for age periods 10 to 15 and 15 to 20, in the previous decade, which are themselves the resultant of the disturbed conditions prevailing between 1881 and 1891. It is necessary to remember that the decreases are proportionate only, and are due, not to any decrease in the actual figures, but to their lower rates of increase compared with the figures in other categories. The age distribution of 10,000 Buddhists corresponds in its features of comparison with previous decades with that for the total population. The proportions for the two mediant periods 15 to 20 and 20 to 40 are, however, less, and those for the extreme periods of youth and age are greater than the proportions for the total population of the province.

Age distribution of 10,000 of the total population.

Age period.	1911	1901	1891
0—5	1,326	1,398	1,371
5—10	1,308	1,257	1,270
10—15	1,144	1,065	1,170
15—20	930	918	967
20—40	3,125	3,210	3,083
40—60	1,562	1,544	1,514
60 and over	605	608	625

Age distribution of 10,000 Buddhists.

Age period.	1911	1901	1891
0—5	1,363	1,438	1,400
5—10	1,349	1,289	1,298
10—15	1,188	1,095	1,205
15—20	933	919	973
20—40	2,963	3,078	2,948
40—60	1,570	1,549	1,525
60 and over	634	632	651

107. Mean age.—In 1901, Mr. Lowis, having calcuated the mean age of the two typical selections of 100,000 of the population of each sex, as recorded in Subsidiary Table IVA of Chapter IV of the Census Report for that year, came to the conclusion that the results were not what would be expected in a community where the stronger sex is more likely to be recruited from without than the weaker. The marginal statement gives the mean age of the Buddhist population, male and female, as well as of the total population, and enables the effect of migration on the mean age to be estimated. Among the conclusions it suggests are :—

Year.	Total population.		Buddhists.	
	Males.	Females.	Males.	Females.
1891 ...	24·76	24·61	24·49	24·74
1901 ...	25·04	24·76	24·71	24·86
1911 ...	25·32	24·98	25·02	25·11

(i) That the mean age of Buddhist females is higher than the mean age of Buddhist males.

(ii) That the effect of immigration is to enhance the mean age of the total male population above the mean age of the Buddhist male population.

(iii) That the effect of immigration is to depress the mean age of the total female population below the mean age of the Buddhist female population.

(iv) That the contrary action of immigration on the mean age of the male and female populations results in the mean age of the total male population exceeding the mean age of the total female population.

The first, second, and fourth of these conclusions are natural, and correspond to anticipation. The higher mean age among Buddhist females is due to the relative greater mortality among males. The effect of the immigration of such large numbers of males between the ages of 20 and 45, necessarily raises the mean age of the males, and is sufficient to counteract the initial excess in the mean age of the indigenous females and turn the scale in a contrary direction. But the depression of the mean age of the female population by immigration is by no means to be anticipated. It may be explained by a reference to the final marginal statement in paragraph 105. It is there seen that female immigration not only raises the ages of the female population between the ages of 15 and 25, it also raises it between the ages of two and five. Whereas the immigration of men has no necessary connection with the immigration of children, it is highly probable that women arriving in the province will be accompanied by one or more children. These children will naturally be of both sexes, but whereas the

number of male children in proportion to the total number of male immigrants would be too small to effectively depress the mean age when the whole were amalgamated with the indigenous population, the number of female children would be a large proportion of the total number of female immigrants, and the resultant would be a depression of the mean age of the total population below that of the indigenous Buddhists. It is important to note that the increase in the mean age noticeable since 1891 does not necessarily indicate greater longevity of population. It may indicate a decline in the birth-rate, or a higher infantile mortality, reducing the relative numbers of children in comparison with those of adult age. A decadent race with a low birth-rate would probably show a progressive increase in the mean age of its population, due to the comparative absence of children. Of course the contrary conclusion is equally incorrect. A rise in the mean age, though it would necessarily accompany decadence, does not necessarily imply it. No general conclusion can be deduced merely from a rise in the mean age without an examination of many accompanying circumstances.

108. Birth and death-rates from age records.—In his Memorandum on the age Tables and Rates of Mortality of the Indian Census of 1901, Mr. Hardy, while calculating the death-rate for the populations of remaining large provinces, omits to calculate that for Burma. He explains that even considering the Buddhist population only, and consequently eliminating any serious difficulties as to immigration, the recorded rate of increase of population is much higher than the true figures. An approximate method of estimating the birth and death-rates for the Province is by utilising the mean age of the population. It has been seen that the mean age is 25·32 and 25·02 for males, according as the Buddhist or the total population is considered, and 24·98 and 25·11 for the total females, and for Buddhist females, respectively. Assuming it to be 25, this would give a death-rate of 1000 ÷ 25, or 40 per thousand per annum. Assuming also, with Mr. Hardy, that the natural rate of increase is 12 per thousand, per annum, the birth and death-rates deduced from the records of ages are 52 and 40 per thousand, per annum, respectively. It is possible from these deduced rates to estimate the correctness of the record of the vital statistics of the province. Even admitting that the deduced birth and death-rates of 52 and 40 are but the roughest of approximations, it is obvious that the degree of omission in the record of the vital statistics is extremely high, amounting to as many as ten per thousand in the case of deaths and fifteen per thousand in the case of births. It may be suggested that the age returns are so unreliable that it is possible that the error lies in the birth and death-rates deduced from them, rather than in the returns of vital statistics. But a death-rate of 40 per thousand in Burma is much more probably correct than rates varying from 18·69 to 34·81. The estimated death-rates for the remaining provinces, calculated from the registered deaths, tend to average over 40, rather than under that figure; and even for the figures quoted in the marginal statement, Mr. Hardy remarks that they must not be taken as definite determinations of the death-rates prevailing, as it is practically certain that the registration of the deaths of infants and quite young children is less complete than in the case at older ages, and that the death-rates given are no doubt somewhat under-estimated. It is therefore, highly probable that the deduced birth and death-rates of 52 and 40 per thousand respectively for Burma, are approximately correct, and that a quarter of the total number of deaths occurring, and over a quarter of the total number of births occurring, are omitted from the registration of vital statistics. The large margin of error in the record, and the possibilities of progressive efficiency in their enumeration, render them of no assistance even in estimating the relative mortality for different years. As an instance, the statistics for infantile mortality in Upper and Lower Burma, as given in Subsidiary Table

Recorded Brith and Death-rates per thousand of population.

Year.	Birth-rate.		Death-rate.	
	Upper Burma.	Lower Burma.	Upper Burma.	Lower Burma.
1901	37·66	32·07	33·27	20·62
1902	38·01	31·57	29·95	21·16
1903	37·48	33·54	21·80	24·13
1904	35·05	32·71	18·69	22·36
1905	34·91	34·34	22·46	24·93
1906	34·17	32·30	26·22	27·15
1907	33·14	32·65	26·13	26·84
1908	36·32	34·06	28·52	28·06
1909	37·10	35·27	34·81	27·70
1910	37·13	35·46	30·27	26·99

Mr. Hardy's estimate of death-rates on mean population 1891—1901.

Province.	Death-rate
Bengal ...	38·9
Bombay ...	45·9
Madras ...	38·1
North-West	43·4
Punjab ...	40·3

IX, may be quoted. In 1903, and 1905, the death-rate of children under one year of age in Upper Burma, as recorded, was considerably below the death-rate for Lower Burma. In 1907, and 1909, the corresponding death rates for Upper Burma were greater than those for Lower Burma. These statistics must not be taken to indicate that there has been a heavy increase in infantile mortality in Upper Burma. They tend to show that the record of deaths in Upper Burma is gradually becoming more complete. Little advantage would accrue from a detailed comparison of the variation and age distribution of the population as obtained from the census records, and the vital statistics, when there are so many sources of inaccuracy in both series of figures. As Mr. Hardy states in his Memorandum on the age Tables of the Census of 1901, the population tables might enable us to attempt some correction of the ages given in the returns of registered deaths, if one could safely make the assumption that the nature and extent of the errors in the statements of age for the purpose of death registration are similar to those of the errors in the census returns. The doubt attaching to this assumption would, however, render any conclusions based upon it of little value. He is of the opinion that it would appear to be hopeless, for many years to come, to expect anything like complete registration of births and deaths in India.

109. Variation in the birth-rate.—The figures for age distribution can be utilised for the purpose of estimating to what extent the birth-rate is varying. Comparing the proportionate number of children recorded under the age of 10, for the past three enumerations, there was an increase from 264 to 265 per thousand, between 1891 and 1911, and a diminution to 263 per thousand, in 1901. These slight variations for the province are the resultant of marked variations for its constituent natural divisions, the figures for which are affected by the large amount of internal migration, and the irregular distribution of external immigration among them. They are also affected by changes in the census area. The increase in the birth-rate, noticed by Mr. Lowis in his report for 1901, has not continued. It was due to increase in the proportionate numbers of children in the Central Basin, and the Northern Hill Districts. The increase in the former was partly due to the migration of adults to the districts of the Deltaic Plains, and partly to a genuine increase in the birth-rate after the turbulent period following the war and the annexation of Upper Burma. The increase in the Northern Hill Districts was partly due to improved enumeration, and partly to a genuine increase in the birth-rate, after the war. The diminution in the proportionate number of children since 1901 has operated in the two main divisions of the Central Basin and the Deltaic Plains. There has probably been a slight decline in the birth-rate which existed during the era of rapid expansion from 1891 to 1901. The disturbing effects of Indian immigration, and the addition of large areas containing animistic populations, are exhibited in the marginal statement. For Buddhists only, the proportionate number of children under ten, per thousand of the population, increased by 3 from 1891 to 1901, whereas for the total population, the increase was one only. Similarly, for Buddhists only, the diminution in the proportion of children for the past decade has been one per thousand only, while for the total population, it has been two. Immigration and extensions of area have therefore operated to minimise the increase in the former period, and to magnify the decrease in the latter period. In the twenty years, 1891 to 1911, if the whole population be considered, there has been a diminution in the proportion of children from 264 to 263 per thousand, but if Buddhists only are considered, there has been an increase in the proportions, from 269 to 271 per thousand. From a general survey of the figures, it is probable that the same causes which led to a large immigration between 1891 and 1901, tended to enhance the birth-rate, and to increase the proportion of children among the indigenous population; and the causes which led to a decline in the immigration to the Province, towards the end

Number of children under 10 per 1,000 of the population.

Area.	1911	1901	1891
Province ...	**263**	**265**	**264**
Central Basin ...	266	268	256
Deltaic Plains ...	260	267	272
Northern Hill Districts	251	248	226
Coast Ranges ..	267	249	276
Specially Administered Territories.	269	257	...

Number of children under 10 per 1,000 of the population.

—	1911	1901	1891
All Classes ...	263	265	264
Buddhists ...	271	272	269

of the period 1901 to 1911, similarly tended to diminish the birth-rate and the proportionate number of children among the indigenous population.

An alternative method of estimating the variation in the birth-rate is by considering the proportion of children, not to the total population, but to the number of married females between the ages of 15 and 40. Unfortunately, in addition to the want of reliance on the age records themselves, the disturbing effects of changes of census areas, and of progressive efficiency of enumeration, robs the comparison of most of its value. It is not probable that the increase in the percentages from 173 to 190, in the Northern Hill Districts, from 1891 to 1911, is genuine; neither is the increase from 188 to 216, in the Specially Administered Territories, between 1901 and 1911 to be explained except by changes in the census area, and in the method or efficiency of record. The depression in the percentages from 212 to 207, for the period 1891 to 1901, and the increase to 211 for 1911, are the resultants of too many questionable factors to be accepted without hesitation. For Buddhists only, whether for the province or for Burma Proper, the proportion of children to married females has risen since 1891. For the Province, it was retarded in 1901, by the addition of the questionable results obtained from the inclusion of the Specially Administered Territories in the census area. The most reliable figures are those for Buddhists only, for Burma Proper. They indicate a progressive increase in the percentage from 209 in 1891 to 211 in 1901, and 214 in 1911. The figures for 1891 were unduly depressed by the war and the troublesome times following the annexation of Upper Burma. The period of expanding prosperity which succeeded, and lasted through the first half of the decade 1901 to 1911, is responsible for the successive increases. The cessation of the era of rapid expansion in the latter half of the past decade had not operated for sufficient time, for its effect, on the retardation of the birth-rate of the indigenous population, measured by the proportion of children to married females, to have made an appreciable impression on the previous rate of increase.

Percentage of children under 10 to married females aged 15 to 40.

Area.	1911	1901	1891
Province	**211**	**207**	**212**
Central Basin ...	213	214	214
Deltaic Plains	209	210	215
Northern Hill Districts	190	176	173
Coast Ranges	202	206	209
Specially Administered Territories.	216	188	...

Percentage of children under 10 to married females aged 15 to 40.

Population.	1911	1901	1891
Province	211	207	212
Province (Buddhists only).	214	208	208
Burma Proper	210	209	212
Burma Proper (Buddhists only).	214	211	209

110. Fecundity of various races.—Subsidiary Table IV would, if the age records could be relied upon, enable an estimate to be made of the relative fecundity of the various races to be found in the Province. The figures are however to be received with great hesitation. The numbers of children among the Kachins and the Chinese are small, because in Burma they are largely immigrant races. But even among the indigenous races not affected by immigration, the figures are of but little comparative value. For instance, it would be a highly doubtful assumption that the fecundity of the Talaings and the Wa Palaung races was in the ratio of 358 and 259 respectively because these are the relative proportions of the children of the two races recorded as living between the ages of 0 and 12; or that it was in a still more divergent ratio, because the relative proportions of children to females between the ages of 15 and 40 were more divergent than these numbers. The ages of children are peculiarly liable to be given incorrectly, and it is not possible to assume that among different races the degree of error will be identical. There are so many different degrees of civilisation among the races of Burma, so many widely varying modes of life affecting the rates of mortality, that the records may be the

Race.	Number of children below 12 years of age per 1,000 of each sex.	
	Males.	Females.
Talaing ...	355	362
Karen ...	330	338
Taungthu ...	360	306
Chin ...	318	322
Danu ...	292	317
Shan ...	287	270
Arakanese ...	267	283
Wa Palaung...	251	267
Kachin ...	233	222
Chinese ...	166	268

resultant of many other factors than different degrees of fecundity. The variations are a complex of such factors as the birth-rate, the mortality among children, the general longevity of the race, and the degree of error in recording ages, especially those of children. It is impossible to estimate, with any approach to approximation, to what extent the various factors have operated in producing the different proportions of children to the total population among different races.

111. **Birth-rate calculated with reference to the number of married women between 14 and 45.**—In paragraph 762 of the Census Report for India for the year 1901, it is suggested that the crude birth-rate per thousand of the population is not the most effective instrument to use in comparing the fecundity of various races. The birth-rate is dependent primarily on the number of women of child-bearing age (for India between 15 and 45), or rather on the number of married women between these ages, and a birth-rate calculated on the total population does not permit of effective comparisons with other races. For instance, it is found that whereas the crude birth-rate per thousand of the population is much higher in India than in England, what may be called the true birth-rate, that is, the ratio of births to the number of married women of child-bearing age is higher in England than in India. This is due to two causes. In England, the number of persons at the non-productive ages, the very young and those past middle age, are in a much higher proportion than in India. Moreover, in India, marriage among females is much more universal than in England, the percentage of married females between the ages of 15 and 45 to the total number being 78 per cent. in India as against 47 per cent. in England. Owing to these two factors, the higher proportion of the population at reproductive ages, and the higher proportion of females at such ages who are married, the Indian birth-rate per thousand of the population is very high compared with the similar rate for England. But if measured by the number of married women between the ages of 15 and 45, the birth-rates are 247·5 per thousand, in India and 254·9 per thousand, in England, which is a slightly higher rate for the latter country. In Burma, the crude birth-rate of 52 per thousand of the population would be equivalent to a rate of 234 per thousand females, between the ages of 15 and 45, and 357 per thousand married females of such ages. It is, therefore, considerably above the rate for England, whichever method of calculation is adopted.

SUBSIDIARY TABLE I.—*Age distribution of* 100,000 *of each sex by annual age periods.* (*Buddhist only.*)

Age.	Male.	Female.	Age.	Male.	Female.
1	2	3	1	2	3
0	2,131	2,251	51	345	325
1	2,479	2,611	52	539	522
2	2,979	3,058	53	419	450
3	3,238	3,344	54	348	350
4	2,882	2,885	55	1,022	956
5	2,857	2,963	56	526	465
6	2,966	2,999	57	375	393
7	2,451	2,643	58	344	365
8	2,847	2,915	59	229	240
9	2,162	2,063	60	1,330	1,459
10	3,629	3,458	61	318	248
11	1,914	1,799	62	436	289
12	2,788	2,554	63	372	267
13	2,263	2,103	64	244	195
14	1,862	1,737	65	632	612
15	2,238	2,349	66	196	141
16	1,721	1,880	67	274	270
17	1,636	2,001	68	163	156
18	1,866	2,270	69	88	99
19	1,523	1,694	70	692	975
20	3,087	3,574	71	98	104
21	1,076	1,195	72	148	136
22	1,483	1,563	73	123	107
23	1,488	1,537	74	60	62
24	1,091	1,176	75	225	220
25	2,976	3,012	76	93	62
27	1,269	1,187	77	57	39
26	1,279	1,182	78	62	69
28	1,265	1,267	79	32	34
29	912	963	80	227	347
30	3,510	3,252	81	23	28
31	774	781	82	17	17
32	1,133	1,185	83	24	26
33	1,093	927	84	11	9
34	746	773	85	45	47
35	2,546	2,064	86	11	15
36	992	959	87	11	8
37	1,111	863	88	7	10
38	1,061	1,035	89	6	5
39	845	731	90	35	45
40	2,633	2,528	91	2	1
41	588	551	92	6	2
42	972	877	93	6	4
43	740	795	94	2	1
44	608	616	95	7	17
45	1,780	1,584	96	16	7
46	684	610	97	1	3
47	680	591	98	6	4
48	619	620	99	2	5
49	421	368	100	7	8
50	1,844	1,838			

SUBSIDIARY TABLE IC.—*Age distribution of* 100,000 *Buddhists of each sex calculated by Mr. Hardy from the Census Tables of* 1901.

Age.	Male.	Female.	Age.	Male.	Female.
1	2	3	1	2	3
0	3,657	3,593	51	707	700
1	3,255	3,273	52	679	676
2	3,028	3,071	53	651	652
3	2,870	2,926	54	624	628
4	2,751	2,814	55	597	605
5	2,655	2,721	56	571	582
6	2,582	2,643	57	545	560
7	2,517	2,576	58	520	538
8	2,460	2,518	59	495	515
9	2,407	2,464	60	470	493
10	2,357	2,414	61	445	472
11	2,311	2,365	62	421	450
12	2,265	2,317	63	397	428
13	2,221	2,268	64	373	405
14	2,176	2,217	65	349	382
15	2,131	2,167	66	326	359
16	2,086	2,114	67	303	337
17	2,040	2,061	68	280	315
18	1,995	2,008	69	258	293
19	1,949	1,955	70	236	271
20	1,904	1,902	71	214	249
21	1,858	1,848	72	193	227
22	1,813	1,794	73	173	205
23	1,767	1,740	74	153	183
24	1,722	1,686	75	134	162
25	1,677	1,633	76	116	142
26	1,632	1,582	77	100	123
27	1,588	1,532	78	84	105
28	1,544	1,482	79	70	88
29	1,500	1,433	80	57	72
30	1,457	1,387	81	46	59
31	1,415	1,342	82	36	47
32	1,373	1,299	83	28	37
33	1,332	1,257	84	21	28
34	1,291	1,216	85	15	20
35	1,251	1,175	86	11	15
36	1,212	1,137	87	8	11
37	1,173	1,100	88	5	8
38	1,136	1,065	89	3	5
39	1,098	1,032	90	2	3
40	1,062	999	91	1	2
41	1,026	968	92	1	...
42	990	938			
43	956	909			
44	923	881			
45	890	853			
46	857	826			
47	826	800			
48	795	774			
49	765	749			
50	736	724			

SUBSIDIARY TABLE II.—*Age distribution of 10,000 of each sex in the Province and each Natural Division.*

Age.	1911.		1901.		1891.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
Province ...	.....	.....	.....	.....	.....	.....
0— 1	218	241	228	252	280	310
1— 2	217	236	248	266	210	226
2— 3	266	289	293	315	270	286
3— 4	302	323	309	326	312	327
4— 5	269	291	272	287	253	268
0— 5	*1,272*	*1,380*	*1,350*	*1,446*	*1,325*	*1,417*
5—10	1,276	1,341	1,232	1,282	1,247	1,293
10—15	1,163	1,126	1,088	1,042	1,192	1,148
15—20	893	967	874	961	912	1,022
20—25	857	884	888	929	913	910
25—30	860	810	909	857	881	806
30—35	846	737	877	766	799	684
35—40	677	578	648	547	635	539
40—45	594	557	567	523	553	514
45—50	399	365	396	361	389	358
50—55	370	384	381	393	366	393
55—60	223	231	231	236	222	232
60—65	263	272	559	657	566	684
65—70	124	122				
70 and over	183	246				
Central Basin ...	.....	.....	.....	.....	.....	.....
0— 5	1,362	1,341	1,473	1,416	1,364	1,324
5—10	1,336	1,290	1,283	1,204	1,264	1,169
10—15	1,213	1,113	1,120	1,000	1,227	1,075
15—20	888	926	840	899	909	983
20—40	2,910	2,851	2,979	2,983	2,942	2,919
40—60	1,618	1,657	1,639	1,655	1,593	1,630
60 and over	673	822	666	843	701	900
Deltaic Plains ...	.....	.....	.....	.....	.....	.....
0— 5	1,200	1,426	1,290	1,522	1,319	1,543
5—10	1,199	1,382	1,188	1,355	1,216	1,375
10—15	1,167	1,191	1,118	1,146	1,180	1,189
15—20	911	1,018	914	1,041	922	1,083
20—40	3,548	3,123	3,582	3,143	3,427	2,929
40—60	1,478	1,387	1,443	1,314	1,467	1,375
60 and over	497	473	465	479	469	506
Northern Hill Districts	.....	.....	.....	.....	.....	.....
0— 5	1,231	1,376	1,267	1,418	1,070	1,308
5—10	1,159	1,258	1,086	1,206	978	1,175
10—15	1,028	1,080	922	931	912	1,036
15—20	848	923	856	938	836	932
20—40	3,459	3,114	3,629	3,227	4,068	3,265
40—60	1,809	1,659	1,789	1,663	1,628	1,584
60 and over	466	590	453	617	508	700
Coast Ranges ...	.....	.....	.....	.....	.....	.....
0— 5	1,270	1,417	1,269	1,002	1,308	1,475
5—10	1,271	1,401	1,267	1,446	1,321	1,428
10—15	1,143	1,123	1,143	1,216	1,185	1,178
15—20	897	995	926	1,100	910	1,044
20—40	3,356	3,089	3,382	3,216	3,306	3,017
40—60	1,570	1,461	1,534	1,507	1,408	1,398
60 and over	493	514	479	513	472	460
Specially Administered Territories.	.....	.....	.....	.....	.....	.....
0— 5	1,281	1,334	1,330	1,332	.....	.....
5—10	1,422	1,347	1,229	1,253	.....	.....
10—15	1,092	997	903	800	.....	.....
15—20	867	927	790	851	.....	.....
20—40	2,930	3,079	3,239	3,333	.....	.....
40—60	1,757	1,602	1,793	1,654	.....	.....
60 and over	651	714	716	777	.....	.....
Mean age for Province	*25·32*	*24·98*	*25·04*	*24·76*	*24·76*	*24·61*

SUBSIDIARY TABLE III.—*Age distribution of* 10,000 *of each sex for Buddhist Population.*

Age.	1911.		1901.		1891.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
0— 1	234	243	245	255	298	312
1— 2	233	235	265	266	221	224
2— 3	280	284	310	313	282	283
3— 4	321	320	325	323	327	324
4— 5	286	290	288	285	265	264
0— 5	*1,354*	*1,372*	*1,438*	*1,442*	*1,393*	*1,407*
5—10	1,355	1,344	1,301	1,277	1,309	1,286
10—15	1,236	1,140	1,143	1,046	1,255	1,155
15—20	899	966	877	961	923	1,023
20—25	775	864	828	917	838	901
25—30	760	792	828	850	791	795
30—35	767	727	799	756	728	676
35—40	636	584	626	552	622	544
40—45	566	552	539	521	537	514
45—50	409	374	407	369	400	363
50—55	373	384	383	395	370	396
55—60	241	242	244	241	234	237
60—65	278	278	592	673	600	703
65—70	133	128				
70 and over.	198	253				
Mean Age	*25·02*	*25·11*	*24·71*	*24·86*	*24·49*	*24·74*

SUBSIDIARY TABLE IV.—*Age distribution of* 10,000 *of each sex in certain races.*

Race.	Males. Number per Mille aged.					Females. Number per Mille aged.				
	0-5.	5-12.	12-15.	15-40.	40 and over.	0-5.	5-12.	12-15.	15-40.	40 and over.
Talaing	158	197	73	382	190	159	203	71	398	169
Karen	141	189	68	399	203	147	191	68	413	181
Arakanese	108	159	70	439	224	114	169	65	434	218
Shan	126	161	64	402	247	117	153	57	407	266
Chin	138	180	64	402	216	147	175	48	425	205
Kachin	75	158	82	453	232	86	136	61	481	235
Wa-Palaung ...	128	123	67	421	261	122	145	57	420	256
Danu	128	164	76	384	248	136	181	80	377	226
Taungthu	180	180	65	353	222	141	165	94	405	195
Chinese	66	100	40	565	229	120	148	67	442	223

SUBSIDIARY TABLE V.—*Proportion of children under* 10 *and of persons over* 50 *to those aged* 15—40; *also of married females aged* 15—40 *per* 100 *females.*

District and Natural Division.	Proportion of children both sexes per 100.						Proportion of persons over 50 per 100 aged 15—40.						Number of married Females aged 15—40 per 100 Females of all ages.		
	Persons aged 15—40.			Married Females aged 15—40.			1911.		1901.		1891.				
	1911.	1901.	1891.	1911.	1901.	1891.	Male.	Female.	Male.	Female.	Male.	Female.	1911.	1901.	1891.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Whole Province ...	65	64	65	211	207	212	28	32	28	31	28	33	26	26	25
Central Basin ...	*70*	*70*	*67*	*213*	*214*	*214*	*34*	*40*	*34*	*39*	*30*	*37*	*24*	*24*	*23*
Prome	63	67	72	198	207	207	28	30	28	29	29	33	26	26	26
Thayetmyo	68	65	71	198	199	216	32	33	29	32	27	32	27	27	25
Pakôkku	74	74	73	223	220	231	34	40	34	42	31	41	24	24	22
Minbu	70	67	71	210	203	222	33	40	35	41	35	44	25	24	23
Magwe	72	73	69	245	244	249	31	37	31	35	26	31	31	22	21
Mandalay	56	56	50	188	186	166	30	40	30	42	25	38	25	25	25
Shwebo	75	69	59	218	191	179	39	45	38	41	29	34	23	25	25
Sagaing	73	77	66	244	236	221	37	44	37	44	35	41	21	22	21
Lower Chindwin ...	78	78	72	236	227	241	42	50	46	52	43	48	21	21	19
Kyauksè	64	60	46	186	163	136	39	46	36	42	29	35	25	29	28
Meiktila	73	75	71	244	244	243	35	40	35	38	28	33	21	22	21
Yamèthin	71	71	73	208	215	240	31	36	30	34	25	31	26	26	23
Myingyan	76	75	72	240	245	244	35	40	36	40	29	37	22	21	21
Deltaic Plains ...	*60*	*61*	*65*	*209*	*210*	*215*	*25*	*26*	*28*	*25*	*21*	*25*	*27*	*27*	*27*
Rangoon	21	21	24	135	136	144	14	22	16	24	11	22	33	32	32
Hanthawaddy ...	57	57	64	211	209	215	25	26	23	25	20	24	26	27	27
Tharrawaddy ...	68	65	76	205	202	220	26	27	24	25	24	27	27	28	27
Pegu	61	62	61	208	212	214	26	25	24	24	19	23	27	28	28
Bassein	63	67	74	207	220	223	26	26	24	26	26	25	26	27	26
Henzada	66	69	73	213	220	227	26	28	26	28	27	28	25	26	25
Myaungmya	65	66	}		209	214	}	25	25	25	25	}		28	27	}
Ma-ubin	66	} 62	}	66	220	} 209	}	218	27	28	} 23	26	} 22	25	25	} 28	} 27
Pyapôn	61				212				25	26					27		
Thatôn	73	74	72	244	246	229	25	23	35	22	21	21	25	26	27
Toungoo	66	66	68	200	197	194	27	27	27	26	23	24	28	29	29
Northern Hill Districts ...	*60*	*57*	*49*	*190*	*176*	*173*	*27*	*32*	*25*	*32*	*20*	*29*	*27*	*29*	*28*
Bhamo	53	49	46	178	163	173	25	31	26	33	18	32	27	29	28
Myitkyina	45	42	...	172	159	...	21	28	17	27	...	...	28	31	...
Katha	70	66	57	198	182	184	30	33	29	32	23	28	27	29	28
Ruby Mines	55	50	29	187	175	163	28	34	25	33	17	25	28	29	28
Upper Chindwin ...	65	63	54	196	180	166	29	33	26	32	23	29	27	29	29
Coast Ranges ...	*64*	*63*	*67*	*202*	*206*	*209*	*25*	*27*	*26*	*27*	*22*	*24*	*28*	*28*	*28*
Akyab	60	60	60	183	195	189	25	28	24	27	19	24	31	30	31
Northern Arakan ...	51	55	45	133	140	112	31	29	29	29	26	19	35	35	39
Kyaukpyu	62	60	64	168	164	171	31	35	30	33	26	28	29	29	29
Sandoway	68	67	76	190	197	217	28	29	25	27	26	27	29	28	27
Salween	65	62	60	210	206	203	25	18	24	20	19	16	29	28	28
Amherst	68	66	74	241	244	244	26	24	24	24	21	20	26	25	26
Tavoy	71	73	71	258	250	236	29	34	31	31	26	30	22	22	23
Mergui	65	71	68	223	227	224	26	26	26	25	26	19	26	27	26
Specially Administered Territories.	*70*	*63*	...	*216*	*188*	...	*35*	*35*	*35*	*35*	...	...	*26*	*27*	...
Northern Shan States ...	74	63	...	228	196	...	37	38	33	37	...	...	24	28	...
Southern Shan States ...	69	62	...	212	180	...	36	35	34	33	...	...	25	28	...
Pakôkku Hill Tracts ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chin Hills	69	74	...	212	255	...	26	26	46	52	...	...	27	20	...

SUBSIDIARY TABLE VI.—*Variation in population at certain age periods.*

Natural Division.	Period.	Variation per cent. in population (increase + decrease −).					
		All ages.	0—10.	10—15.	15—40.	40—60.	60 and over.
1	2	3	4	5	6	7	8
Province	1901 - 1911	+ 16·17	+ 15·25	+ 24·72	+ 14·18	+ 17·42	+ 15·52
Central Basin ...	1881—1891	...	...	...	...	...	...
	1891—1901	+ 9·14	+ 14·34	− 1·32	+ 8·87	+ 12·01	+ 3·34
	1901—1911	+ 12·79	+ 11·87	+ 23·90	+ 10·89	+ 12·16	+ 11·57
Deltaic Plains ...	1881—1891	+ 29·39	+ 21·75	+ 26·07	+ 36·38	+ 28·02	+ 29·81
	1891—1901	+ 35·64	+ 33·17	+ 29·53	+ 40·78	+ 31·72	+ 31·67
	1901—1911	+ 15·79	+ 12·71	+ 20·65	+ 14·71	+ 20·15	+ 19·23
Northern Hill Districts.	1881—1891	...	...	...	...	...	...
	1891—1901	+ 151·69	+ 178·05	+ 140·46	+ 138·07	+ 170·32	+ 124·83
	1901—1911	+ 22·19	+ 23·34	+ 38·91	+ 17·88	+ 22·89	+ 20·57
Coast Ranges ...	1881—1891	+ 21·61	+ 18·32	+ 24·38	+ 21·67	+ 21·54	+ 36·02
	1891—1901	+ ·73	− 2·58	− 1·97	+ 2·49	+ 3·11	+ 4·24
	1901—1911	+ 15·57	+ 15·67	+ 13·86	+ 14·54	+ 18·09	+ 20·27
Specially Administered Territories.	1881—1891	...	...	...	...	...	...
	1891—1901	...	...	...	...	...	...
	1901—1911	+ 26·03	+ 31·24	+ 54·95	+ 19·94	+ 23·03	+ 15·35

SUBSIDIARY TABLE VII.—*Reported birth-rate by sex and Natural Division.*

Year.	Number of births per 1,000 of total Population (Census of 1901).							
	Province.		Central Basin.		Deltaic Plains.		Coast Ranges.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9
1901	16·6	15·5	...	...	16·6	15·4	15·9	14·7
1902	16·3	15·3	...	...	16·1	15·08	16·3	15·06
1903	17·4	16·2	...	...	17·2	16·1	16·4	15·08
1904	16·9	15·8	...	...	16·7	15·5	16·8	15·7
1905	17·7	16·7	...	...	17·3	16·4	17·1	15·6
1906	16·7	15·6	...	...	16·5	15·4	16·2	14·8
1907	16·9	15·9	17·1	16·1	16·8	15·7	16·4	16·2
1908	18·0	16·8	19·2	18·5	17·2	16·1	17·3	15·8
1909	18·5	17·4	19·2	18·2	17·6	16·5	18·8	17·6
1910	18·6	17·4	19·1	18·08	18·1	16·9	18·2	17·02

NOTE 1.—No records of birth are taken in the Specially Administered Territories or in the Northern Hill Districts.

2. No records of birth are taken in the rural parts of Upper Burma prior to 1907.

3. The inclusion of births in towns in Upper Burma for the years 1901 to 1906 has slightly raised the birth-rate for the province for three years.

SUBSIDIARY TABLE VIII.—*Reported death-rate by sex and Natural Division.*

Year.	Number of deaths per 1,000 of total Population (Census of 1901).							
	Province.		Central Basin.		Deltaic Plains.		Coast Ranges.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9
1901	12·5	9·8	...	...	12·7	9·7	11·07	8·3
1902	10·7	9·1	...	...	12·2	9·3	10·9	8·2
1903	12·5	10·7	11·2	11·3	13·9	10·7	12·1	9·04
1904	11·3	9·7	9·6	9·7	12·8	9·9	11·5	8·9
1905	13·5	11·03	11·7	11·	14·6	11·04	12·05	9·6
1906	14·5	12·4	14·07	13·8	15·5	11·8	12·4	9·4
1907	14·4	12·1	13·2	13·1	15·2	11·1	15·6	12·1
1908	15·2	13·1	15·8	15·4	15·9	12·3	13·4	10·8
1909	16·1	14·5	17·5	17·2	16·04	12·4	12·8	9·07
1910	15·1	13·1	15·5	15·1	15·4	11·8	12·7	10·4

SUBSIDIARY TABLE IX.—*Reported death-rate by sex and age in decade and in selected years per mille living at same age according to the Census of 1901.*

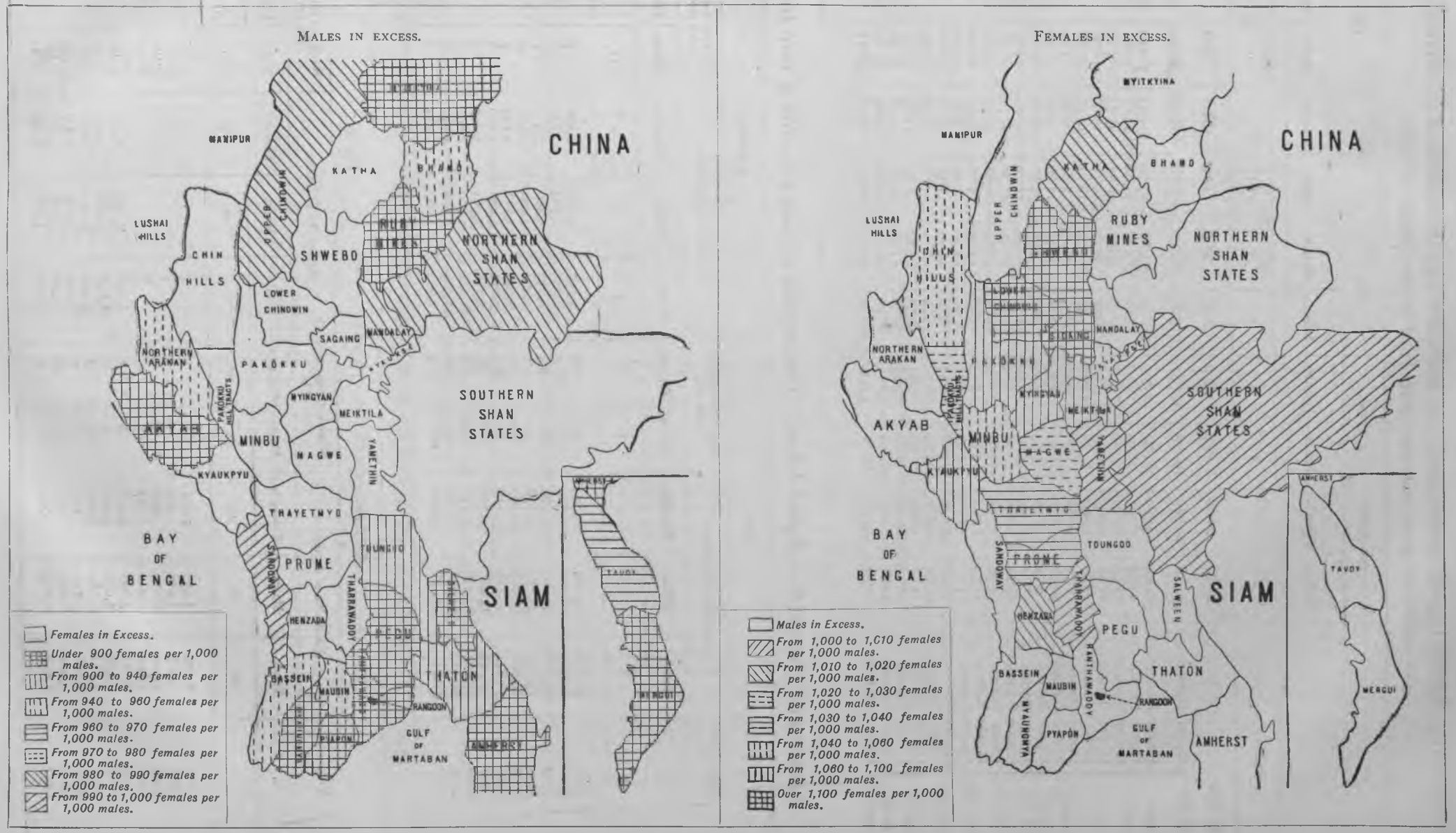
Age.	Average of decade.		1903.		1905.		1907.		1909.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11
All Ages	*27·28*	*24·49*	*24·6*	*22·0*	*25·5*	*22·6*	*28·3*	*24·3*	*31·6*	*28·8*
Under 1 year. Upper Burma ...	277·18	202·40	190·15	142·51	245·78	177·57	328·20	239·37	381·34	281·81
Under 1 year. Lower Burma ...	331·94	237·86	331·80	227·83	336·79	239·88	297·70	212·43	369·93	276·05
1—5 Upper Burma ...	28·83	26·97	28·04	26·53	26·02	23·82	25·18	23·67	44·41	41·92
1—5 Lower Burma ...	28·97	25·42	29·16	25·37	30·28	26·54	30·01	25·33	29·70	27·08
5—10 Upper Burma ...	11·45	10·65	10·46	9·58	9·97	8·78	12·56	11·66	18·40	16·67
5—10 Lower Burma ...	13·62	11·90	13·11	11·26	14·46	12·33	16·14	14·23	13·18	12·14
10—15 Upper Burma ...	7·50	6·86	6·28	6·21	6·23	5·69	7·80	7·53	11·29	10·56
10—15 Lower Burma ...	10·42	8·71	9·73	8·52	10·11	9·06	11·66	9·94	9·50	8·47
15—20 Upper Burma ...	9·57	8·36	9·35	9·13	9·08	7·48	12·87	10·36	15·55	13·20
15—20 Lower Burma ...	15·72	11·54	14·11	12·00	14·51	11·96	16·20	12·61	13·65	11·54
20—30 Upper Burma ...	9·81	11·51	10·18	11·29	10·05	10·04	11·70	11·71	15·67	16·38
20—30 Lower Burma ...	14·58	12·78	12·84	12·09	14·63	12·69	16·61	14·35	14·80	14·31
30—40 Upper Burma ...	12·54	14·68	13·86	14·05	12·48	13·75	14·69	15·07	20·42	20·16
30—40 Lower Burma ...	17·31	17·07	15·99	16·50	16·97	16·26	21·00	19·39	19·02	19·37
40—50 Upper Burma ...	16·17	14·79	17·28	14·54	16·14	14·19	17·59	15·42	25·60	19·62
40—50 Lower Burma ...	22·89	19·82	21·25	18·67	21·24	18·22	27·62	22·90	26·55	22·81
50—60 Upper Burma ...	24·48	21·49	26·50	21·64	26·58	20·83	27·82	21·88	36·31	27·57
50—60 Lower Burma ...	28·83	24·19	28·29	23·69	25·79	23·36	32·86	27·56	32·88	27·34
60 & over. Upper Burma ...	61·88	61·73	62·62	56·29	66·13	60·51	70·69	62·85	91·65	80·57
60 & over. Lower Burma ...	62·50	59·45	56·10	53·99	56·94	54·47	69·63	67·11	76·71	72·19

SUBSIDIARY TABLE X.—*Reported deaths from certain diseases per mille of each sex.*

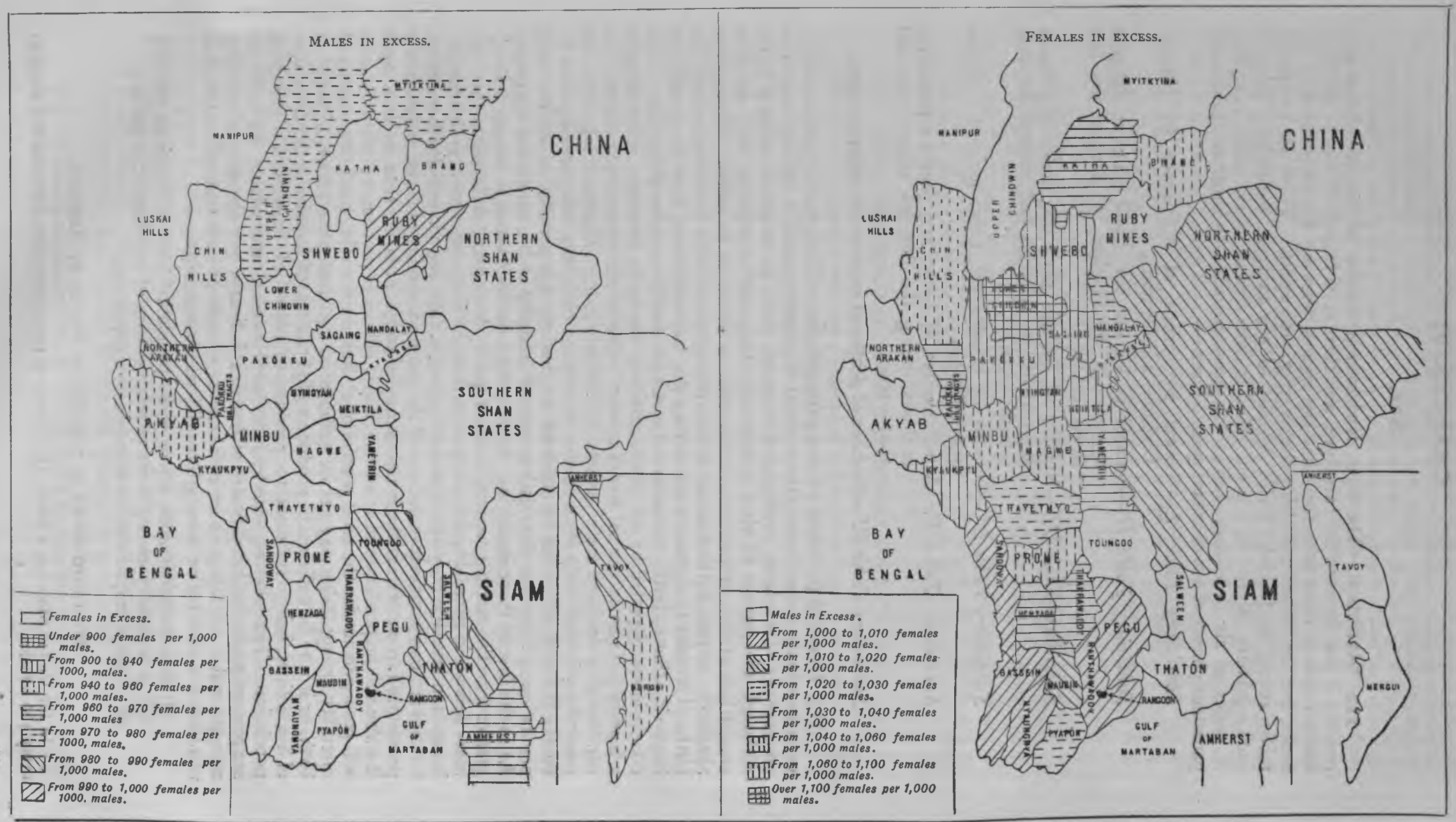
Year.	Fever.					Cholera.				
	Actual No. of deaths.			Rates per mille of each sex.		Actual No. of deaths.			Rates per mille of each sex.	
	Total.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11
1901	50,676	29,363	21,313	9·4	7·7	3,553	2,187	1,366	·7	·4
1902	67,555	38,026	29,529	12·2	10·7	1,901	1,264	637	·4	·2
1903	77,818	43,652	34,166	10·1	8·3	8,233	4,860	3,373	1·1	·8
1904	75,556	41,879	33,677	9·6	8·1	2,980	1,903	1,077	·4	·2
1905	69,683	38,893	30,790	8·9	7·3	5,347	3,218	2,129	·7	·5
1906	75,844	42,128	33,716	9·7	8·1	7,872	4,546	3,326	1·0	·8
1907	79,245	44,487	34,758	10·2	8·3	8,378	5,361	3,017	1·2	·7
1908	77,661	43,236	34,425	9·0	8·2	11,911	7,020	4,891	1·6	1·1
1909	80,759	44,575	36,284	10·2	8·6	11,389	6,618	4,771	1·5	1·1
1910	80,014	44,168	35,846	10·1	8·5	2,011	1,267	744	·2	·1

Year.	Small-pox.					Plague.				
	Actual No. of deaths.			Rates per mille of each sex.		Actual No. of deaths.			Rates per mille of each sex.	
	Total.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.
	12	13	14	15	16	17	18	19	20	21
1901	2,475	1,451	1,024	·4	·3	3	...	...	...	...
1902	1,915	1,146	769	·3	·2	1	...	...	...	...
1903	1,920	1,070	850	·2	·2	9	...	...	...	...
1904	1,809	1,022	787	·2	·1	3	...	...	...	...
1905	6,161	3,666	2,495	·8	·6	3,692	2,599	1,093	·5	·2
1906	8,540	5,053	3,487	1·1	·8	8,637	5,208	3,429	1·2	·8
1907	2,882	1,587	1,295	·3	·2	9,249	5,431	3,818	1·2	·9
1908	1,298	745	543	·1	·1	6,752	3,975	2,777	·9	·6
1909	1,011	660	351	·1	·08	6,946	3,975	2,971	·9	·8
1910	1,817	1,123	694	·2	·1	7,741	4,372	3,369	1·1	·8

Maps shewing Proportions of the Sexes (Actual Population).



Maps shewing Proportions of the Sexes (Natural Population).



CHAPTER VI.

Sex.

112. Statistics.—The most fundamental division of the population of a country is that between the two sexes, and there is no branch of census statistics which receives more attention than the figures shewing the proportions of the sexes, and the causes underlying the varying proportions. There are no special tables among the Imperial Series devoted to sex analysis, the division being of such a primary nature that it is embodied in each and all of the tables compiled. A series of six Subsidiary Tables has been compiled to illustrate special and particular phases of sex distribution, as follows :—

Subsidiary Table I.—General proportions of the sexes by Natural Divisions and Districts.

Subsidiary Table II.—Number of females per 1,000 males at different age-periods, by religions, at each of the last three censuses.

Subsidiary Table III.—Number of females per 1,000 males at different age-periods, by religions and natural divisions (census of 1911).

Subsidiary Table IV.—Number of females per 1,000 males for certain selected races.

Subsidiary Table V.—Actual number of births and deaths reported for each sex during the decades 1891—1900 and 1901—1910.

Subsidiary Table VI.—Number of deaths of each sex at different ages.

113. General problem of sex proportions.—The general problem of the variations in the proportions of the sexes at different ages and in different countries commences with a fairly assured and universal basis, an excess of males at birth. Although the records of vital statistics in India are incomplete, they enable a comparison of the proportions of the sexes at birth to be made. Though not absolutely correct, in the absence of any proved or probable tendency to omit the births of females to a greater extent than the births of males, they are conclusive in proving that at birth, the number of males exceeds the number of females. This conclusion is supported by the vital statistics in European countries, where despite a tendency to an excess of females over males in the general population, the numbers of males born are in excess of females born. Commencing with this generally universal basis of an excess of males at birth, two influences operate to modify the ratio of females to males for succeeding age periods and for the total population. These are the relative rates of mortality of the sexes, and migration. As to the first of these modifying factors, the relative mortality among males is greater than the mortality among females, partly because at earlier ages they are more delicate in general health, and partly, though this is rather more problematical, because in later life they are exposed to greater risks and vicissitudes from which females are comparatively immune. If the greater mortality of males is sufficiently pronounced to counteract the initial excess of males at birth, then at later ages females will preponderate in numbers; if it is still more pronounced, then females will preponderate for the total population. But, on the other hand, the excess of mortality among males may not be sufficient to counteract the excess of males at birth, or it may be sufficient to produce a slight excess of females at the later ages of life, without being sufficient to produce an excess of females for the total population. The following note by Mr. Gait, Census Commissioner for India, on sex proportions in the United States of America, indicates how the excess mortality amongst males, operating on an initial excess of males at birth, results in a threefold resultant sex distribution among three different communities :—

(i) male preponderance among white population born of American parents,
(ii) sex equality among white population born of non-American parents,
(iii) female preponderance among negro population.

Sex proportions in the United States of America.

In the United States as a whole, the Census of 1910 shows that there are 106 males to every 100 females.

The difference between these proportions and those in Northern Europe is generally supposed to be due to immigration, but this is not the full explanation. An excess of males is found, not only amongst immigrants, but also in the native white population born of native parents, amongst whom there are 104 males for every 100 females. The disparity in their case must be wholly due to natural causes. Amongst the native whites born of foreign parents, the number of each sex approaches equality. The negro population shows a slight preponderance of females, the proportion being 98·9 males to 100 females.

The excess of males in the native white population born of native parents is ascribed by the local census authorities to the fact that while as elsewhere the number of males at birth exceeds that of females, and the male mortality is greater than the female, the general deathrate is relatively so much lower that the excess mortality amongst males does not produce equality in the number of the sexes at so early an age as in Europe; consequently, in the population at all ages, the slightly greater male deathrate does not overcome the initial advantage which males have at birth. Amongst the native white population born of foreign parents, the general rate of mortality is higher; consequently, the males lose the advantage which they had at birth, and equality in the sex proportions results.

The final sex proportions of the population born in any country are therefore seen to be the resultant of four factors:—

(i) the degree of excess of males at birth,
(ii) the degree of excess of male mortality in the early years of life,
(iii) the age at which the excess of male mortality begins to decline,
(iv) the subsequent variations in the relative male and female mortalities.

These are the factors determining the sex proportions in the population born in a country; if the sex proportions of the population resident in a country are to be considered then the factor of migration operates in addition to those already recounted.

114. Effect of migration on sex proportions.—Apart from what may be termed the natural influences operating to modify the initial excess of males born in any country, migration exercises a decided influence on sex proportions. The fact that migration, especially migration from one country to another, is usually a movement of males, with a tendency in one constant direction, operates to deplete the proportion of males in the country of emigration, and to increase it in the country of immigration. It is most important to separate as far as possible the effects of mortality and migration on the sex-proportions of a country. This is effected by calculating the sex-proportions for the natural population or persons born in any area of calculation, as well as for the actual population or persons resident in the same area. The proportions of the sexes for the natural population gives the resultant effect of mortality upon the initial proportions, and a comparison between the figures for the actual and natural populations gives the resultant effect of migration. Subsidiary Table I of this Chapter indicates the marked influence of migration, both internal and external, on the sex-proportions of the province of Burma and its constituent districts, and demonstrates the necessity for a separate treatment of the two factors of migration and mortality.

There are two methods of approaching the problem of sex-proportions. One is by taking the population as actually recorded as the basis of the discussion, and estimating the respective effects of mortality and migration in producing these results. The other method is to take the recorded birth rates of the two sexes as the initial standpoint, and commencing from the observed proportions of the sexes at birth, to estimate the respective effects of mortality and migration in producing the proportions actually recorded. In Burma, the second method is the more effective. It is the more natural, because the numbers of the sexes at birth afford the initial material operated on by subsequent modifications; it is the more simple, because the Buddhist population affords a test of the effect of mortality alone, free from the disturbing effects of migration; and it is the more illuminative, because it brings into relief at an early stage the fundamental fact of sex proportions in Burma, *viz.*, the excess of females amongst its indigenous population. For the earlier portion of the discussion the sex-proportions of the actual population will be ignored; the natural population, or the population actually born in the province, excluding immigrants, will be considered, and illustrations will be taken from the Buddhist population, either as recorded, or as corrected by the calculations of Mr. Hardy. It is only when the sex-proportions of the natural population of the province have been discussed that the effect of migration will be estimated.

115. Possible omission to enter females in census records in backward tracts.—The sex proportions in India and Burma at the census of 1901

were 963 and 962 females per thousand males respectively. The unduly low proportion of females in India gave rise to considerable controversy which has been summarised by Mr. Gait as follows:—

According to the vital statistics, the proportion of males at birth in India is slightly in excess of the European average. The difference however, even if real, is not sufficient to account for the relatively high proportion of males, as compared with females, in the enumerated population; and what we have to consider is whether this is due to an incomplete enumeration of females at the Census, or to local conditions which induce a relatively higher mortality of females as compared with Europe.

In the Census Report for 1891, it was stated that in most parts of India there was a tendency, in a greater or less degree, to omit from the Census record girls of from 9 to 15 and wives of from 15 to 20. In the report for 1901, while the possibility of some omissions having occurred was not denied, it was suggested that the local conditions of India, tending to produce a relatively high mortality amongst females, were sufficient to account for the proportions disclosed by the Census figures. These conditions may be briefly summarized as follows:—

(1) Female infanticide—comparatively rare at the present day.
(2) Neglect of female infant-life common amongst castes where the procuring of a bridegroom is a matter of considerable expense.
(3) Infant-marriage and premature sexual intercourse and child-bearing.
(4) A very high birth-rate.
(5) Unskilful midwifery.
(6) Abortions, *e.g.*, in the case of pregnant widows.
(7) Confinement and bad feeding of women at puberty, during their menstrual period, and after child birth.
(8) The hard life of widows.
(9) The hard labour which women of the lower classes have to perform.

While admitting the importance of the above factors, several German critics, including von Mayr and Kirchhoff, summaries of whose remarks on the subject have been circulated, are of opinion that they are not in themselves sufficient to account for the deficiency of females disclosed by the Census figures, and that this deficiency must be due largely to omissions from the Census record. Their reasons are:—

(1) The *à priori* probability of omissions in view of the reticence of certain classes regarding their females, and the absence of any sufficient explanation of the difference in the proportions, as compared with Europe.

(2) The fact that at each successive enumeration there has been a rise in the proportion of females.

(3) The very low proportion of females to males at certain ages when omissions would *à priori* be expected to occur.

(4) The fact that the vital statistics, like those in Europe, disclose a relatively lower female mortality, and that in this respect they are confirmed by the conclusions drawn by Mr. Hardy from an examination of the age returns of the last Census.

A reference to Subsidiary Table I suggests that as the unduly low proportion of females in Burma is caused entirely by a large immigration from India in which males predominate to an excessive degree, and as the natural population born in the province shews an excess of females, the controversy has no reference to the proportions of the sexes in Burma. There are, however, areas in which there is an excess of males among the natural population, and Mr. Lowis discussed the subject at some length in paragraph 74 of the Census Report of 1901, in connection with the deficit of females in the Bhamo, Myitkyina and Ruby Mines Districts. He arrived at the conclusions that it was not inconceivable that the deficit may have been due to the wilful omission of females from the returns, and that he could only account for the deficiency of females in the three districts aforesaid by the operation among the Kachins and other backward communities in the north and east of the province, of the two factors mentioned by the Census Commissioner, tending to the omission of females from the records. But an examination of the natural populations for 1901, of the three districts mentioned by Mr. Lowis, discloses the facts that there was an actual excess of females recorded as born in two (Bhamo and Ruby Mines) of the three districts under consideration, and that the excess of males was due to a large masculine immigration. Even in the third district, Myitkyina, the actual deficit of females (854 per thousand males) in the actual population was reduced to small dimensions (980 per thousand males) by discounting the effect of migration; and it is probable that if the effect of migration from the unadministered and un-enumerated portion of the district could have been removed, an actual excess of females would have resulted. Moreover, Subsidiary Table IV of this chapter demonstrates that for the census of 1911, there is an excess of females among most of the backward races, which would make it highly improbable that

any tendency to look upon girls and women as being of too little importance for entry in the census records, should have been in operation. Among backward tribes, the low quality of the enumeration is more responsible for errors in sex proportions than any tendency to wilfully omit the record of females. Take, for instance, the case of Karenni where Mr. Lowis contrasts the observed superabundance of females with the excess of males in the census figures. In the first place, the superabundance of females was reported, not for the whole population, but for the Red Karens, the Padaungs and some villages in the Brè country; and even for the Red Karens and the Padaungs, the excess of females was noticed only in the Brè-Padaung tracts to which the Assistant Superintendent's personal attention was given. The remark concerning the excess of females does not appear to apply to the States of Kantarawadi, Naungpale and Nammekon. There is no discrepancy in the fact that there is a superabundance of females among certain races in a restricted locality, and at the same time an excess of males in a wider area comprising other races, where the superabundance of females does not necessarily occur. Moreover, Karenni was in 1891 an estimated area, the records for which could not pretend to great accuracy. It is interesting to notice that the extension of regular census enumeration to the special area where the superabundance of females was observed in 1901, has resulted, in the census of 1911, in a record consistent with the observed facts. In the enumerated portions of the Kyebogyi State there are 3,952 females to 3,116 males a proportion of 1,268 females to 1,000 males.

It is therefore highly improbable that any tendency exists, or has existed, among the backward races of Burma, to omit or evade the return of females in the census records. In the remote areas of the Myitkyina District and the Karenni Subdivision an actual enumeration of the population was not attempted in 1901. It is impossible to utilise the admittedly imperfect results of an estimate to demonstrate a tendency to omit females in the process of enumeration. Any figures in the enumeration for 1901 or 1911, which superficially suggest any such tendency are capable on a detailed examination of rational and probable explanation in other directions.

116. Effect of infantile mortality on sex proportions.—A detailed discussion of sex proportions in Burma must necessarily commence with the relative proportions of the sexes at birth. These are given in detail in Subsidiary Table V of this chapter. All subsequent modifications, whether by mortality or by migration, must operate on the initial numbers, either enhancing the disparity or reducing its dimensions and changing its direction. The proportions for the two decades, 1891—1901 and 1901—1911, are calculated over different areas, the former over Lower Burma, and the latter over Lower Burma and that portion of Upper Burma included within the natural division termed the Central Basin. The proportion of females born in the former decade (931 per thousand males) coincides closely with the proportion for the whole of India. For the period 1901—1911, influenced partly by the inclusion of a large part of Upper Burma, the proportion of females at birth has risen to 938 per thousand males. At the commencement of life there is therefore an excess of 60 or 70 males in every thousand males born, compared with the corresponding number of females born. But upon these excess numbers a heavier male mortality immediately commences to effect a reduction. A reference to Subsidiary Table IX of Chapter V or to Subsidiary Table VI of this chapter will shew that there is an extremely heavy rate of mortality during the first year of infancy, and that this heavy mortality operates with much greater intensity against the male sex. For every thousand deaths of male infants below the age of one year which are reported, only 772 deaths of female infants below the age of one year are returned. Thus the preponderance of males at birth is assailed before the first year of life has been completed by a mortality nearly one-third greater than occurs among females. The effect may be illustrated by imagining the operation of the male and female infant death rates for any particular year upon 1,000 male and 938 female infants, these numbers being proportionate to the numbers of male and female births recorded. Take, for instance, the death rates in Lower Burma for children under

Records of birth.			
Period.	Males.	Females.	Females per 1,000 males.
1891—1901 ..	715,859	666,475	931
1901—1911 ..	1,209,091	1,133,566	938

one year of age in 1909. These are 370 and 276 per thousand for males and females respectively. At the end of the first year of life there would be 679 females to 630 males, the initial deficit of 62 females being converted by the mortality of one year into an excess of 49 females. This affords an explanation of the apparent contradiction that while a greater proportion of males are born than females, the population returned at successive census enumerations for infants under one year of age shews a larger proportion of females than males. The excess mortality amongst males rises to such a degree in the first year of life, that the initial excess of males is counteracted and turned into a deficit within the limit of the lowest age period for which a record is possible.

Effect of infantile death-rate on sex proportions.

——	Males.	Females.
Initial numbers ...	1,000	938
Death-rate ...	370	276
Mortality ...	370	259
Survivors at end of first year.	630	679

117. Effect of mortality on sex proportions up till the age of 15.—If it were possible to accept the recorded statistics of births and deaths as reliable, then the excess of females established at the end of the first year of life should progressively increase till the attainment of 60 years of age. The proportions in column 14 of Subsidiary Table VI calculated over a period of five years shew a smaller mortality for females than for males, for each of the age periods given in the table with the exception of that for sixty years and over. Each successive period up to sixty should accordingly see a progressive increase in the ratio of females to males, the former diminishing by death at a less rapid rate than the latter. But a reference to Subsidiary Table II shews no such progressively increasing ratio. Indeed, choosing the indigenous Buddhist population in order to obviate the disturbance of immigration, for the three periods 0—5, 5—10 and 10—15, there is, on the contrary, a progressively diminishing ratio of 1,044, 1,021 and 950 females per thousand males. There is therefore the extraordinarily contradictory result, that a population with an excess of females at the ages 0—5, operated upon by a mortality for the periods 5—10 and 10—15 in which the deaths of females are less than the deaths of males, results in a sex proportion for the ages 10—15 in which the males outnumber the females. One explanation of this contradiction is that the records of vital statistics are not to be trusted, and that the excess of masculine mortality is neither so great nor so universal as the records would imply. This may partly account for the anomaly, but the principal cause is the unreliability of the census records of ages, which vitiates the possibility of comparing with any advantage the crude statistics of sex by age groups. A reference to the diagram illustrating paragraph 104 of the previous chapter, will demonstrate that even after two operations of correction, to eliminate the more obvious errors of the age records, the age curves of the two sexes depart from the probable true curves in different degrees at different ages. The amount of error is measured by the area between the fine and the broad curves. For the ages 10—15 the error is indicated by two triangular shaped areas, ABC for males and XYZ for females. It is thus graphically demonstrable that even after superficial correction, the numbers of males between the ages 10 and 15 are over-estimated to a considerably greater extent than the number of females of the same ages, and that consequently the sex proportions for that age period are disturbed.

The apparent deficiency of females from the ages of 10 to 15 is not peculiar to Burma. It is to be found to a greater degree in all the Indian provinces. In the Census Report for India for 1901, it is considered that the deficiency, though partly due to a genuine decline in the proportion of females to males when puberty is reached, is principally caused by the inaccuracy of the age return in the case of females. This inaccuracy general at all ages, is particularly disturbing as the age for marriage approaches. The ages of married girls are overstated and the ages of unmarried girls are understated. Testing this theory by the calculations of Mr. Hardy for the Buddhist population of Burma for 1901, it is seen that the

Buddhists aged 10—15, per 10,000 of the population, 1901.

——	Males.	Females.
As recorded ...	1,143	1,046
As corrected by Mr. Hardy.	1,133	1,158

recorded number of males between the ages of 10 and 15 for that year was slightly over the probable true number, and the recorded number of females was decidedly below the probable true number. Thus the sex proportion of the age period is distorted in two directions, by an excess of males above, and a deficit of females below, the real numbers. The diminishing ratios of 1,044. 1,021 and 950 females per 1,000 males for the three first quinquennial age periods are due rather to incorrect age returns than to any such changes in the actual proportions of the sexes

118. Sex proportions at different ages according to Mr. Hardy's calculations.—The reference to the age curves of the previous chapter to demonstrate the unreliability of the sex-proportions by age groups as deduced from the uncorrected census records, suggests that a more correct estimate of the sex-proportions of the Buddhist community of the province by age groups might be obtained by utilising Mr. Hardy's age tables. As given in Subsidiary Table IC of that chapter, they record the age distribution of 100,000 persons of each sex. Allowing for the fact that in 1901, the females of the Buddhist community outnumbered the males in the proportion of 1,027 to 1,000, the final column of the marginal statement gives the sex-proportions deduced from the probable true ages for 1901. It suggests the following conclusions as to the variations in the proportions of the sexes through succeeding age periods. Commencing with an initial excess of males (not revealed in the statement), the excess mortality among males causes an excess of females in the first quinquennial period up to five years of age. The excess of females reaches its maximum between the ages of 5 and 10, after which a decline commences, being almost imperceptible for the period 10 to 15. The excess of females continues but with diminishing proportions through the ages 15 to 25, and then the proportion changes and the males assume the supremacy in point of numbers. The decline in the proportion of females still continues, till between the ages of 30 and 40 there are only 968 females to every 1,000 males. From this period, the proportion of females again rises until their supremacy in numbers over the males again occurs from the age of 60 onwards. So far as the sex-proportions based on Mr. Hardy's tables can be accepted as being accurate they indicate that though in the initial and final stages of life the mortality amongst males is higher than amongst females, in the mediant ages there is a greater rate of mortality among women. The close correspondence of the period of decline in the ratio of females to males with the child-bearing age of the former, commencing with the age of puberty and continuing throughout the period of child-bearing, can scarcely be the result of coincidence. It sugggests that the risks to female life of the function of bearing children are greater than the occupational risks to male life for the corresponding years.

Females per 1,000 males (Buddhist community).

Age period.	Uncorrected returns.		Corrected returns.
	1911.	1901.	1901.
0— 5	1,044	1,034	1,035
5—10	1,021	1,008	1,051
10—15	950	939	1,050
15—20	1,108	1,126	1,037
20—25	1,149	1,143	1,016
25—30	1,073	1,054	991
30—40	923	1,115	968
40—50	981	966	983
50—60	1,051	1,041	994
60 and over	1,116	1,167	1,156

These conclusions may be compared with those obtained for India generally as recorded in paragraph 222 of the India Census Report for 1901 as follows :—

"The general conclusions to be drawn from the age statistics seem therefore to be as follows. There is everywhere an excess of males at birth. For a few years after birth the two sexes have about the same expectation of life, but about the time of puberty there is a relatively higher mortality amongst females. Those who servive this trying period seem for some years to have a stronger hold on life than males of the same age ; while from about 30 onwards the two sexes have again much the same general rate of mortality. After the age of 60 the balance seems to turn in favour of females, but this is possibly due merely to a greater tendency to exaggerate age on the part of old women."

The principal points in which sex-variation in Burma appears to differ from the more generalised experience in India are as follows :—

(i) In India the two sexes have about the same expectation of life for a few years after birth ; in Burma the expectation of life is much less for males than for females for the first year of life, though hence-forward the expectations approach equality.

(ii) In India the mortality among females at the time of puberty is relatively much greater, and diminishes the ratio of females to males much more, than in Burma.

(iii) In India, the excess of male mortality is only sufficient to transform the initial deficit of females from 93 per cent. of number of males at the time of birth, to 96 per cent. for the general population; in Burma, the excess of male mortality is sufficient to transform a similar initial deficit of females into an excess of 103 per cent. of the number of males for the natural population.

(iv) In India, the high mortality of females at puberty is followed by a period when females have a hold of life, equivalent to, or stronger than, that possessed by males. In Burma, the greater mortality amongst females commencing at puberty continues throughout the child-bearing age.

119. Effect of mortality on sex-proportions from 15 to 40.—It must be remembered that the four contrasts between the proportion of the sexes in India and in Burma are drawn, not from the actual census records, nor from the figures for 1911, but from the corrected figures for 1901. If the actual figures for 1911 be taken three of the four divergencies in sex-proportions between Burma and India still remain. The greater expectation of life at birth among females, the smaller mortality among females at the age of puberty and the conversion of an initial deficit of females into a general surplus for the natural population, are apparent, whether the crude or the corrected records are taken, and whether the figures for the census of 1901 or that of 1911 are taken. These three may be taken as fully established. The remaining conclusion, the relatively greater mortality among females in Burma commencing from the age of puberty and continuing throughout the child-bearing age, is more tentative. It is contradicted by the actual age returns. From the ages of 10 to 25, the sex proportions as recorded, and as corrected, offer many points of contradiction. The records for 1901 and 1911 both indicate a relatively light female mortality leading to an increased ratio of females to males from the ages of 15 to 25. From the latter age the progressive diminution in the female excess is observable in the recorded figures for 1911, and to this extent the records for 1911 demonstrate the accuracy of the corrections for 1901. The contradictions are therefore reduced to the opposing tendency of the sex proportions between the ages of 15 and 25 in the actual records of 1911 and the corrected records of 1901. The actual mortality returns, as given in Subsidiary Table VI of this chapter shew a higher relative mortality for females during the age periods 15 to 20 and 20 to 30 than during the period 5 to 10. This higher relative mortality among females, despite the fact that the immigrant male mortality affects the returns heavily during the second period, suggests that there is an excess female mortality during the period from 20 to 30. Though the reliability of the mortality statistics is questionable, they can be accepted as demonstrating the improbability of such a marked increase in the excess of females between the ages of 10 and 25 as the records for 1911 would indicate. The balance of probability tends rather towards the accuracy of the corrected returns for 1901, and the fourth point of contrast between the sex-proportions in Burma and in India, though less firmly established than the first three, has a fair degree of probability. The excessive mortality of females in India during the age of puberty is followed by a reaction in which female life and male life have more or less equal expectations. In Burma, the more moderate female mortality at puberty is followed by a period lasting throughout the age of child-bearing, during which the relatively higher mortality among females converts their excess numbers at the

Buddhist females per 1000 males during child-bearing age 15—40.

Age period.	As recorded.		As corrected.
	1911.	1901.	1901.
10—15 ...	950	939	1,050
15—20 ...	1,108	1,126	1,037
20—25 ...	1,149	1,143	1,016
25—30 ...	1,073	1,054	991
30—40 ...	923	1,115	968

Expectation of life (Buddhist community).

Age.	Males.	Females.
15 ...	36·49	35·61
20 ...	33·28	32·98
22 ...	32·09	32·10
25 ...	30·38	30·88
30 ...	27·68	28·96
35 ...	25·11	26·96
40 ...	22·58	24·62
45 ...	20·04	21·89

commencement of the period into a deficit at its close. This tendency can be seen by comparing the expectation of life of males and females during the period from 15 to 45. At the age of 15, the expectation of life for females with the child-bearing period looming ahead is less than for males. As the period gradually passes the discrepancy diminishes, expectation of life approximating equality at the age of 22. Thenceforward the expectation of life for females is greater than that for males being 1·85 years in excess at the age of 45.

120. Progressive variation in sex-proportions.—Still continuing the discussion for the indigenous or natural population of the province, it is seen that there is a progressive advance in the excess of females in the past three census enumerations. The proportions for the Buddhist population correspond closely with those for the natural population. An analysis of the variations of the proportions for different age periods is to be found in Subsidiary Table II, but the figures for the age records are so doubtful that they cannot be made the basis of any profitable discussion. The successive rise in the proportion of females with each enumeration has been cited as a reason for assuming that there is a tendency to omit the record of females. It has been suggested that the increase in the proportions of females is due to the gradual elimination of this tendency as each successive enumeration has been effected. But in Burma the increase is principally due to successive increases in the sex proportions of females to males in the population of the Central Basin and the Deltaic Plains. These two areas comprise that portion of the province which has attained a high stage of civilisation, and it is highly improbable that there has existed any tendency to the omission of female entries in the census records. In the remaining portions of the province, improvements in the nature and methods of census enumeration, and successive increases in the census area, have affected the sex-proportions. But their populations are relatively small and the main contributions to the excess of the female population have been made in the more settled portions of the province.

Females per 1,000 males.			
——	1911.	1901.	1891.
Natural population	1,028	1,027	1,018
Buddhist population	1,031	1,027	1,020

Females per 1,000 males (Natural population).			
Natural Division.	1911.	1901.	1891.
Province	1,028	1,027	1,018
Central Basin ...	1,077	1,070	1,064
Deltaic Plains ...	1,010	993	984
Northern Hill Districts.	1,010	1,035	972
Coast Ranges ...	974	984	965
Specially Administered Territories.	1,017	1,014	...

121. Localities showing female deficit in natural population.—Before leaving the discussion of the sex proportion of the natural population of Burma it is necessary to consider its variation over the different portions of the province, and especially to investigate the circumstances under which the normal excess of females is absent and is replaced by a deficit in certain districts. Outside the Coast Ranges there are six districts only, Rangoon, Thatôn, Toungoo, Myitkyina, the Upper Chindwin and the Ruby Mines, where there is a deficit of females in the natural population. The circumstances of Rangoon are exceptional, there being a much larger Indian than Burmese population within its boundaries. Thatôn and Toungoo are districts whose boundaries have been much changed by administrative readjustments, and whose birth-place statistics, from which the natural population is calculated, cannot be accepted with certainty. Myitkyina and the Upper Chindwin have large unadministered territories within their borders and their population contains many persons from the unadministered areas, recorded as born within the district, but who were born outside the census area. The number of males in the natural population of these districts has been unduly enhanced by these immigrants.

The districts of the Coast Ranges are the only areas in which there appears to be a well established tendency for the males of the indigenous population to outnumber the females. To the extent that the population of the districts have a much larger admixture of Indian blood, and are imbued with Indian modes of life to a greater extent than Burma, it is natural that the sex proportions should

coincide with those of India rather than with those of Burma. But this does not explain the low proportions of females in Northern Arakan and Salween districts. Mr. Lowis confessed that he was unable adequately to account for the excess of males in these districts, where conditions are such as to lead one to anticipate a numerically superior female population. It is probable that being obscure districts inhabited by backward races, they have not been given their full quota of emigrants in the birth-place statistics. It is a point of honour with many of the members of hill tribes who have migrated to the plains, to assume an attitude of contempt towards their place of birth, and indignantly to repudiate a suggestion as to their true place of origin. The population of the districts in question is so small that the sex proportions could be changed by causes affecting but small absolute numbers.

Females per 1,000 males.		
Age.	Buddhist population.	
	Burma.	Coast Ranges.
0—5 ...	1,044	1,009
5—10 ...	1,021	987
10—15 ...	950	918
15—20 ...	1,108	1,073

Considering the sex proportions of the districts of the Coast Ranges as a whole by age periods, it is seen that it is in the earlier ages that the discrepancy between proportions for the Coast Ranges and for Burma is established. The number of females for the first few years is not sufficiently in excess to withstand the greater mortality on attaining puberty, and yet to maintain a state of general excess for the total population.

122. Sex proportions by race.—Subsidiary Table III gives the sex proportions by age periods for nine of the indigenous races of the province and for Chinese. The deficit of females amongst the latter race is partly due to the fact that its members are largely immigrants, and partly to the fact that the male issue of mixed marriages between the Chinese and the Burmese assume Chinese nationality while the female children are brought up as Burmese. Of the indigenous tribes and races, three only, the Arakanese, the Wa-Palaungs and the Taungthus, show a deficit of females. The deficit among the Arakanese is to be accounted for by two causes; the first is the generally observed deficit of females in the districts of the Coast Ranges, and this is supplemented by a tendency of the Burmese race to absorb the members of the Arakanese race, a tendency which operates to a greater extent with the females than with the males. In the Arakan Division, side by side with a deficit of females amongst the Arakanese, there exists a corresponding surplus of females among the Burmese. The Taungthus show a slight deficit amounting to two females only per thousand males. The sex proportions for the Taungthus 998 females per thousand males are not very different from those of the Karens (of which race they form a branch) with 1,007 females per thousand males, though in the one case there is a deficit and in the other an excess of females. The Wa-Palaungs commence with a deficit of females in the earliest age period for children under five years of age, and it has been demonstrated that unless the females can obtain an excess in the earlier years of life through the operation of a relatively small mortality, an excess cannot be obtained in later years. For the remaining races the excess of females ranges from 1,010 for the Shans and Kachins to 1,027 for the Chins, the latter being the only race whose ratio of females to males approaches that for the natural population of the province, 1,028 females per thousand males. The sex proportions by age periods given in Subsidiary Table IV are even more unreliable for the separate races than for the province as a whole. Those for the Taungthus are obviously vitiated by incorrect age returns. Among the Chins and the Kachins, the influence of almost unrestricted sexual intercourse among children attaining puberty is responsible for a large mortality among females, which causes a most marked deficit between the ages of 12 and 15. As a general rule, among the non-Burmese races and tribes of the province, the lower status of women and the harder labour they are compelled to perform in addition to their natural functions of child

Race.	Number of females per 1,000 males.
Talaing ...	1,014
Karen ...	1,007
Arakanese ...	943
Shan ...	1,010
Chin ...	1,027
Kachin ...	1,010
Wa-Palaung ...	984
Danu ...	1,012
Taungthu ...	998
Chinese ...	375

Race.	Females per 1,000 males.		
	0—5	5—12	12—15
Chin ...	1,103	1,005	780
Kachin ...	1,155	873	750

bearing, lead to a greater relative female mortality than exists with the Burmese, and tends to keep the ratio of females to males at a lower level.

123. Sex proportions in India and Burma.—The outstanding feature of the sex proportion of the province of Burma as a whole is the excess of females amongst its natural population, there being 5,812,375 females born in the province to 5,652,871 males. The sex proportion of 959 females per thousand males for the actual population is an incidental fact, due to the superficial phenomenon of migration. The real sex proportion is that of the natural population, which is 1,028 females per 1,000 males. It has been seen that the proportion of the sexes at birth in Burma coincides very nearly with the sex proportions at birth in India. Yet, starting from the same initial proportions of between 930 and 940 females per thousand males at birth, their final proportions diverge widely. The divergence is not due to the fact that the proportions for India are given for the actual population while those for Burma are given for the natural population. In paragraph 195 of the India Census Report for 1901, it is stated that in India as a whole, migration does not greatly disturb the sex proportions, but that it is a factor of considerable importance when the figures for individual provinces or states are considered. The comparison of the proportion of the sexes of the natural population of Burma with that of the actual population of India is therefore quite legitimate. It is necessary to consider the influences which have operated to keep the ratio of females to males at so low a figure as 953 per thousand in India, while in Burma there is an excess of females in the natural population to the extent of 1,028 females per 1,000 males. In the extract from Mr. Gait's note quoted in paragraph 115 of this report, nine reasons are given why there is a relatively high female mortality in India. A perusal of the conditions therein related is sufficient to account for the divergence in the ultimate sex proportions in Burma and India. Of the nine specific causes of a high mortality among females, seven (numbers 1, 2, 3, 6, 7, 8 and 9) do not operate to any appreciable extent in Burma. Certainly, not one of them could be considered as having an appreciable effect in enhancing the rate of female mortality for the province as a whole, though some of them might affect the sex proportions of the backward races to a slight extent. The remaining two causes of a high female mortality, a very high birth rate, and unskilful midwifery, undoubtedly do operate in Burma, and their influence has been seen in the higher mortality of women during the child-bearing period, and the transformation of an excess of females at its commencement into a deficit of females at its close.

Females per 1,000 males.		
—	1911.	1901.
India (actual population).	953	963
Burma (natural population).	1,028	1,027

The excess of females in Burma is established early in life. The number of persons living at each age period grows less and less with advancing years, and consequently an excess sex proportion in the earlier years means much more in actual numbers than an identical excess proportion at a later period. It is to the absence in Burma of the second and third of the conditions given by Mr. Gait as the causes of a high female mortality in India, that the high proportion of females is to be principally attributed. Neglect of female infant life, and infant marriage and child-bearing cause an undue depletion in the number of females in the early years of life, when a slight change in the proportions means a marked change in the absolute numbers of the sexes. A reference to the percentage of mortality for each sex for the early years of life as calculated from Mr. Hardy's life tables, demonstrates that the rate of female mortality in

Comparative early mortality in India and Burma from Mr. Hardy's life tables, Census 1901.

Age.	Mortality per cent.					
	India.			Burma.		
	Males.	Females.	Excess Male Mortality.	Males.	Females.	Excess Male Mortality.
0	28·54	25·88	+2·66	23·83	19·06	+ 4·77
1	8·88	8·73	+ ·15	6·93	6·12	+ ·81
2	6·38	6·05	+ ·33	4·89	4·17	+ ·72
3	4·68	4·42	+ ·26	3·49	3·06	+ ·43
4	3·49	3·58	— ·09	2·56	2·38	+ ·18
5	2·67	2·91	— ·24	1·93	1·89	+ ·04

India approaches much more closely to the rate of male mortality than in Burma during the first four years of life, and actually exceeds the rate of masculine mortality after the completion of the fourth year.

The excess of females thus established is less depleted by the mortality due to early marriages and premature child-bearing in Burma than in India. The marginal statement indicates the extent to which early marriage is associated with a low proportion of females between the ages of 10 to 15 in the various provinces. Burma with the smallest proportion of child marriages has the highest proportion of females at the period when such marriages are contracted. The association of these two factors is summarised in the Census Report for India for 1901 in the statement that the proportion of females at the age 10—15 varies inversely with the number who are married at this period of life.

Sex and marriage proportions from 10-15. Census 1901.

Province.	Number of females per 1,000 males.	Percentage of married females aged 10—15.
Bengal	812	57
Madras	902	23
United Provinces ...	801	54
Punjab	750	27
Bombay	810	46
Central Provinces ...	883	37
Assam	811	29
Burma (Buddhists) ...	939	1

124. Sex proportions of immigrants and actual population.—The excess of females among the population born in the province is counteracted by the excess of males among the immigrant population. Of the 649,971 immigrants in Burma 77·5 per cent. are males, the excess male immigrants numbering 411,275 being more than sufficient to overcome the excess of 159,504 females in the natural population. The resultant excess of males to the number of 251,771 produces a sex proportion of 959 females per thousand males. Though there has been a reduction in the ratio of females to males since 1901, the reduction has not been so great as that for India as a whole. For India the proportion of females has diminished from 963 to 953 per thousand males, whereas in Burma the diminution has been from 962 to 959. From being one point below the proportion for India the proportion of females in Burma is now six points above that for India.

—	Males.	Females.	Excess Males.	Females per 1,000 Males.
Born in Burma ...	5,652,871	5,812,375	—159,504	1,028
Immigrants ...	530,623	119,348	+411,275	225
Actual population...	6,183,494	5,931,723	+251,771	959

Females per 1,000 males.

—	1911.	1901.	1891.
India ...	953	963	958
Burma ...	959	962	962

125. Sex proportions in the City of Rangoon.—The City of Rangoon exhibits in an intensified degree the operation of migration in modifying the sex-proportions of the natural population. There is an excess of females in the proportion of 1,063 per thousand males among the population both born and resident in the City. Immigration from the rest of Burma introduces an excess of 6,203 males, the proportion of females among such immigrants being 666 per thousand. But it is the immigrants from India who are responsible for the bulk of the excess of the male population of Rangoon. They provide a surplus of 107,954 males, females numbering only 174 for every thousand Indian male immigrants. The sex disparity among persons immigrant from countries beyond India is scarcely less disproportionate (204 females per 1,000 males) but it concerns much smaller numbers, the excess of males being 11,531 only. The combined resultant of an excess male immigration from the

Population of the City of Rangoon.

—	Males.	Females.	Excess Males.	Females per 1,000 Males.
Born in Rangoon ..	44,332	47,114	—2,782	1,063
Born in Burma outside Rangoon.	18,582	12,379	+6,203	666
Born in India ...	130,716	22,762	+107,954	174
Born beyond India ...	14,481	2,950	+11,531	204
Total ...	208,111	85,205	122,906	409

three sources, the rest of Burma, India, and countries beyond India, is to cause an excess of males to the extent of 122,906, the proportion of females being 409 per thousand males.

126. Sex proportions of the urban population.—The urban population of the province exhibits in a modified degree the same characteristics which are to be observed in the distribution of the sexes in Rangoon. The fact that the indigenous races of the province have in the past tended to specialise in agricultural occupations, and to leave the pursuit of urban industries to a great extent to Indian immigrants, has tended to produce a considerable excess of males in the urban population of Burma. The large excess of males amongst the immigrants from India is principally concentrated in the towns of the province, the general rule being that the larger the town, the larger is the proportion of immigrants and the greater is the sex disparity of the population. Mandalay is obviously an exception to this rule, but if Mandalay be excluded, the proportions of females to males follow the reverse direction of the size of the population. The proportion of females to males among the urban Buddhist population, ranging from 967 in the 16 towns with a population between 10,000 and 20,000 to 1,113 in the City of Mandalay, indicates the extent to which the excess male urban population is composed of alien immigrants.

Sex proportions (urban population).

Class of Town.	Excess of males.	Females per 1,000 males.	
		All religions.	Buddhists.
City of Rangoon	+122,906	409	869
City of Mandalay... ...	+ 1,137	984	1,113
Moulmein	+ 12,678	639	1,027
Six Towns (population 20,000—50,000).	+ 36,739	648	996
Sixteen Towns (population 10,000—20,000).	+ 35,071	718	967
Thirty-two Towns (population 5,000—10,000).	+ 22,184	824	1,041
Six Towns (under 5,000) ...	+ 2,830	782	977
Total ...	+233,545	657	1,000

127. Sex proportions by natural divisions.—In discussing the sex proportions of the actual population of areas smaller than the whole province, internal as well as external migration must be considered. Immigration from beyond the province acts in one direction only, that of introducing an excess male population to the area affected. But migration within the province operates in a double sense. It depletes the source of migration of an undue proportion of males, and it adds this excess of males into the area of destination of migration. Thus the high proportion of females in the districts of the Central Basin is due to the fact that there is a male excess in the indigenous emigration which partly compensates for the male excess in the alien immigration, and keeps the sex proportions of the actual population close to the sex proportion of the natural population. A significant fact with reference to this natural division is that at the census of 1911 the proportion of the female excess for the actual population has fallen below the excess for the natural population In 1891 and 1901 the proportions of females were higher for the actual population, indicating a large emigration of males which more than compensated for the small immigration of males from India. In 1911, the depression of the female proportion for the actual population below that for the natural population indicates that the male emigration is now of such small dimensions that it cannot outweigh the effect of Indian immigration. The cessation of migration from India and from the Central Basin into the Deltaic Plains has not yet had much effect in raising the proportion of females to males for the latter area, which is now just one

Females per 1,000 males, 1911.

Natural Division.	Actual Population.	Natural Population.
Province	959	1,028
Central Basin ...	1,072	1,077
Deltaic Plains ...	874	1,010
Northern Hill Districts...	937	1,010
Coast Ranges ...	892	974
Specially Administered Territories.	1,004	1,016

Females per 1,000 males (Central Basin).

——	1911.	1901.	1891.
Natural Population ...	1,077	1,070	1,064
Actual Population ...	1,072	1,092	1,087

point higher than in 1901. In two districts only of the Deltaic Plains (Tharrawaddy and Henzada) where the effect of migration is scarcely felt, do the females outnumber the male population. Myaungmya, Pegu, Thatôn and Toungoo show a smaller proportion of females than in 1901. In the first district, a change of boundaries has affected the proportion, and in the last three districts migration is still a potent force. The figures for the Northern Hill Districts and the Specially Administered Territories are affected by changes of the census area and improvements in methods of enumeration in the more remote tracts. The low proportion of females in the districts of the Coast Ranges is due to an initially low proportion amongst the natural population, accentuated by immigration from India.

Females per 1,000 males (actual population).			
Natural Division.	1911.	1901.	1891.
Province	**959**	**962**	**962**
Central Basin ...	1,072	1,092	1,087
Deltaic Plains ...	874	873	869
Northern Hill Districts ..	937	951	873
Coast Ranges ...	892	895	885
Specially Administered Territories.	1,004	1,018	...

SUBSIDIARY TABLE I.—*General Proportions of the sexes by Natural Division and Districts.*

Districts and Natural Divisions.	Number of Females to 1,000 Males.					
	1911.		1901.		1891.	
	Actual population.	Natural population.	Actual population.	Natural population.	Actual population.	Natural population.
1	2	3	4	5	6	7
Province	959	1,028	962	1,027	962	1,018
I.—Central Basin ..	*1,072*	*1,077*	*1,092*	*1,070*	*1,087*	*1,064*
Prome	1,034	1,046	1,049	1,043	1,031	1,030
Thayetmyo	1,031	1,029	1,015	1,023	914	1,012
Pakôkku	1,089	1,061	1,124	1,092	1,118	1,091
Minbu	1,048	1,052	1,088	1,045	1,106	1,060
Magwe	1,026	1,047	1,070	1,042	1,042	1,035
Mandalay	990	1,028	998	1,023	1,087	999
Shwebo	1,120	1,096	1,140	1,086	1,087	1,044
Sagaing	1,111	1,086	1,138	1,104	1,156	1,119
Lower Chindwin	1,238	1,204	1,266	1,108	1,291	1,115
Kyauksè	1,053	1,054	1,037	1,049	1,017	1,022
Meiktila	1,084	1,080	1,119	1,087	1,131	1,083
Yamèthin	1,006	1,035	1,020	1,041	1,001	1,033
Myingyan	1,092	1,070	1,143	1,080	1,134	1,089
II.—Deltaic Plains	*874*	*1,010*	*873*	*993*	*869*	*984*
Rangoon	409	963	418	982	445	939
Hanthawaddy	822	1,005	815	985	848	961
Tharrawaddy	1,001	1,035	967	1,010	982	1,014
Pegu	869	1,009	953	982	799	965
Bassein	944	1,003	919	999	939	993
Henzada	1,014	1,032	1,005	1,016	990	1,010
Myaungmya	897	1,002	907	988	866	972
Ma-ubin	952	1,020	853	993		
Pyapôn	834	1,027				
Thatôn	914	989	906	978	892	953
Toungoo	934	986	943	979	941	981
III.—Northern Hill Districts ...	*937*	*1,010*	*951*	*1,086*	*873*	*972*
Bhamo	941	1,050	914	1,036	790	987
Myitkyina	787	979	854	980	...	...
Katha	1,019	1,035	1,037	1,055	743	1,011
Ruby Mines	846	992	822	1,018	534	800
Upper Chindwin	987	984	1,003	1,034	997	991
IV.—Coast Ranges	*892*	*974*	*895*	*984*	*885*	*965*
Akyab	830	944	797	950	806	941
Northern Arakan	949	987	959	999	924	976
Kyaukpyu	1,064	1,070	1,082	1,062	1,049	1,027
Sandoway	997	1,009	955	994	978	990
Salween	883	915	943	998	902	958
Amherst	854	963	831	968	855	949
Tavoy	970	984	1,015	1,008	1,039	1,019
Mergui	871	954	917	984	900	972
V.—Specially Administered Territories.	*1,005*	*1,017*	*1,018*	*1,014*	...	...
Northern Shan States ...	990	1,016	1,006	1,012	...	...
Southern Shan States ...	1,006	1,011	1,022		...	...
Pakôkku Hill Tracts ...	1,024	1,032	1,019	...	...	...
Chin Hills	1,041	1,057	1,002	1,043	...	...

SUBSIDIARY TABLE II.—*Number of females per 1,000 males at different age-periods by Religions, at each of the last three Censuses.*

Age.	All Religions.			Buddhists.			Animists.			Christians.		
	1891.	1901.	1911.	1891.	1901.	1911.	1891.	1901.	1911.	1891.	1901.	1911.
0—1	1,063	1,065	1,059	1,068	1,067	1,067	975	1,089	976	1,009	1,057	1,056
1—2	1,034	1,032	1,041	1,032	1,034	1,041	1,023	1,009	1,053	1,061	1,076	1,044
2—3	1,012	1,036	1,041	1,025	1,038	1,045	1,000	1,009	1,030	978	1,036	1,040
3—4	1,007	1,013	1,026	1,010	1,018	1,027	918	988	1,043	1,013	961	1,017
4—5	1,016	1,014	1,041	1,018	1,018	1,046	968	1,017	1,039	1,015	1,045	1,001
Total 0—5 ...	**1,028**	**1,030**	**1,040**	**1,031**	**1,034**	**1,044**	**971**	**1,014**	**1,031**	**1,012**	**1,032**	**1,030**
5—10	997	1,001	1,007	1,002	1,008	1,021	945	951	848	942	985	991
10—15	926	921	928	939	939	950	848	882	863	864	898	907
15—20	1,077	1,058	1,037	1,130	1,126	1,108	1,009	945	990	1,058	1,021	1,014
20—25	962	1,006	988	1,097	1,143	1,149	1,013	936	1,002	759	888	866
25—30	880	907	902	1,025	1,054	1,073	875	899	809	674	772	850
Total 0—30 ...	**980**	**988**	**987**	**1,029**	**1,041**	**1,046**	**941**	**942**	**931**	**878**	**934**	**945**
30—40	819	828	833	924	1,115	923	663	778	803	645	714	731
40—50	889	883	889	955	966	981	715	774	776	749	746	794
50—60	1,024	988	993	1,068	1,041	1,051	781	872	922	828	879	877
60 and over	1,161	1,131	1,076	1,194	1,167	1,116	830	1,027	987	867	870	923
Total 30 and over ...	**927**	**916**	**915**	**957**	**1,003**	**1,003**	**858**	**899**	**837**	**830**	**878**	**792**
Total all ages Actual population ...	**962**	**962**	**959**	**1,020**	**1,027**	**1,031**	**858**	**899**	**894**	**829**	**878**	**892**
Total all ages Natural population ...	**1,018**	**1,027**	**1,028**	...	...	...	...	...	...	...	...	...

SUBSIDIARY TABLE III.—*Number of females per 1,000 males at different age-periods by Religions, and Natural Divisions (Census 1911).*

Age.	Central Basin.		Deltaic Plains.		Northern Hill Districts.		Coast Ranges.		Specially Administered Territories.	
	All Religions.	Buddhist.	All Religions.	Buddhist.	All Religions.	Buddhist.	All Religions.	Buddhist.	All Religions.	Buddhist.
1	2	3	4	5	6	7	8	9	10	11
0—5 ...	1,055	1,056	1,038	1,047	1,047	1,058	996	1,009	1,046	1,018
5—10 ...	1,036	1,037	1,007	1,020	1,018	1,039	984	987	952	1,004
10—15 ...	984	988	892	923	985	1,001	876	918	788	923
15—20 ...	1,119	1,139	976	1,104	1,020	1,070	989	1,073	1,074	1,069
20—40 ...	1,050	1,115	769	984	843	916	822	976	1,056	1,071
Total 0—40 ...	**1,046**	**1,073**	**886**	**1,004**	**940**	**989**	**902**	**986**	**1,006**	**1,027**
40—60 ...	1,040	1,132	820	946	859	905	893	942	916	904
60 and over ...	1,308	1,320	831	877	1,186	1,140	1,006	1,023	1,102	1,118
Total 40 and over ...	**1,116**	**1,188**	**823**	**927**	**926**	**956**	**920**	**962**	**966**	**963**
Total all ages (actual population).	**1,072**	**1,100**	**874**	**989**	**937**	**981**	**892**	**981**	**1,005**	**1,011**
Total all ages (natural population).	**1,077**	...	**1,010**	...	**1,010**	...	**974**	...	**1,017**	...

SUBSIDIARY TABLE IV.—*Number of females per 1,000 males for certain selected races.*

Race.	Number of Females per 1,000 males.					
	All ages.	0—5	5—12	12—15	15—40	40 and over.
1	2	3	4	5	6	7
Talaing ...	1,014	1,025	1,040	976	1,057	904
Karen ...	1,007	1,047	1,012	1,002	1,039	897
Arakanese ...	943	990	1,003	869	932	918
Shan ...	1,010	956	968	925	1,034	1,098
Chin ...	1,027	1,103	1,005	780	1,095	987
Kachin ...	1,010	1,155	873	750	1,072	1,029
Wa-Palaung ...	984	970	1,189	873	1,015	994
Danu ...	1,012	1,078	1,119	1,052	994	923
Taungthu ...	998	781	920	1,437	1,143	879
Chinese ...	375	565	461	522	243	302

SUBSIDIARY TABLE V.—*Actual number of births and deaths reported for each sex during the decades 1891—1900 and 1901—1910.*

Year.	Number of Births.			Number of Deaths.			Difference between columns 2 and 3 Excess of latter over former + Deficit −	Difference between columns 5 and 6 Excess of latter over former + Deficit −	Difference between columns 4 and 7 Excess of former over latter + Deficit −	Number of female births per 1,000 male births.	Number of female deaths per 1,000 male deaths.	Remarks.
	Males.	Females.	Total.	Males.	Females.	Total.						
1	2	3	4	5	6	7	8	9	10	11	12	13
1891	49,124	46,208	95,332	40,369	32,821	73,190	− 2,916	− 7,548	+ 22,142	941	813	
1892	57,959	54,111	112,070	50,594	39,639	90,233	− 3,848	− 10,955	+ 21,837	933	783	
1893	60,963	56,499	117,462	54,221	43,926	98,147	− 4,464	− 10,295	+ 19,315	921	810	
1894	64,364	60,389	127,753	58,537	47,870	106,407	− 3,975	− 10,667	+ 21,346	938	817	
1895	67,850	63,297	131,147	55,429	45,731	101,160	− 4,553	− 9,698	+ 29,987	933	825	
1896	75,148	70,540	145,688	58,245	48,442	106,687	− 4,608	− 9,803	+ 39,001	939	832	
1897	74,587	69,072	143,659	66,308	52,262	118,570	− 5,515	− 14,046	+ 25,089	926	788	
1898	80,190	73,648	153,838	66,621	51,235	117,856	− 6,542	− 15,386	+ 35,982	918	761	
1899	91,266	84,447	175,713	93,959	79,427	173,386	− 6,819	− 14,532	+ 2,327	925	845	
1900	94,408	88,264	182,672	95,476	80,734	176,210	− 6,144	− 14,742	+ 6,462	935	846	
Total, 1891-1900 ...	**715,859**	**666,475**	**1,385,134**	**639,759**	**522,087**	**1,161,846**	**− 48,384**	**− 117,672**	**+ 223,488**	**931**	**817**	
1901	97,909	91,290	189,199	73,156	57,419	130,575	− 6,619	− 15,737	+ 58,624	932	785	
1902	96,369	90,195	186,564	90,603	76,702	167,305	− 6,174	− 13,901	+ 19,259	936	847	
1903	101,273	94,335	195,608	105,541	90,167	195,708	− 6,938	− 15,374	− 100	931	984	
1904	98,580	91,841	190,421	96,456	82,276	178,732	− 6,739	− 14,180	+ 11,689	932	853	
1905	103,644	97,933	201,577	110,768	93,623	204,391	− 5,711	− 17,145	− 2,814	945	845	
1906	98,377	92,003	190,380	122,832	104,854	227,686	− 6,374	− 17,978	− 37,306	935	853	
1907	143,644	134,889	278,533	122,961	102,731	225,692	− 8,755	− 20,230	+ 52,841	939	835	
1908	152,472	143,155	295,627	129,082	110,377	239,459	− 9,317	− 18,705	+ 56,168	939	855	
1909	158,017	148,790	306,807	137,769	120,093	257,862	− 9,227	− 17,676	+ 84,945	942	827	
1910	158,806	149,135	307,941	128,896	111,463	240,359	− 9,671	− 17,433	+ 67,582	939	865	
Total 1901-1910 ...	**1,209,091**	**1,133,566**	**2,342,657**	**1,118,064**	**949,705**	**2,067,769**	**− 75,525**	**− 168,359**	**+ 274,888**	**938**	**849**	

SUBSIDIARY TABLE VI.—*Number of deaths of each sex at different ages.*

Age.	1905.		1906.		1907.		1908.		1909.		Total.		Average number of Female deaths per 1,000 male deaths.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0—1 ...	30,715	23,307	32,070	24,413	31,241	24,046	34,797	26,977	38,099	30,225	166,922	128,968	772
1—5 ...	14,063	12,780	15,808	14,586	13,838	12,361	16,434	15,369	17,117	16,245	77,260	71,341	923
5—10 ...	6,962	5,949	8,168	7,409	8,025	7,151	7,545	6,804	8,080	7,398	38,780	34,711	895
10—15 ...	4,338	3,480	5,132	4,256	5,097	4,110	4,920	4,055	4,941	4,153	24,428	20,054	821
15—20 ...	4,977	4,255	5,670	4,847	5,861	4,817	5,201	4,527	5,507	4,935	27,216	23,381	859
20—30 ...	10,475	8,639	11,989	10,068	11,953	9,856	11,309	10,160	11,864	11,096	57,590	49,819	865
30—40 ...	10,225	8,182	11,633	9,252	12,509	9,492	12,341	9,853	12,756	10,579	59,464	47,358	796
40—50 ...	7,932	5,923	8,733	6,553	9,846	7,080	10,125	7,304	10,740	7,751	47,376	34,611	731
50—60 ...	6,734	5,725	7,512	6,055	7,996	6,453	8,286	6,641	8,899	7,114	39,427	31,988	811
60 and over ...	14,347	15,383	16,117	17,415	16,595	17,365	18,126	18,687	19,766	20,597	84,951	89,447	1,053

CHAPTER VII.

Civil Condition.

DESCRIPTIVE.

128. Marriage Customs of the Burmese.—It is inevitable that a race so highly individualised as the Burmese should have evolved its social and domestic customs on lines differing widely from those of neighbouring peoples. Marriage, in common with other developments of national life, illustrates the wide separation in modes of thought between the Burmese and the majority of oriental races. There is a universal possibility of social intercourse between the young people of both sexes, which gives them an opportunity for the mutual selection of their life companions that is rare even among western races.

According to the laws of Menu there are three ways in which a marriage can be brought about :—

1. When the parents of the couple give them to one another.
2. When they come together through the good offices of a go-between, called an *oung bwè*.
3. When they arrange the matter between themselves.

The third method is responsible for over ninety per cent. of the marriages effected. It is only when there is great wealth or social position that the parents limit the choice of their children, and it is only when there are obstacles in the course of true love that the offices of the go-between, beyond those of a merely formal nature, are needed. The marriage ceremony itself is devoid of any religious sanction, the relation of husband and wife being of a purely secular nature. The following quotation from the standard work on the Burman by Sir George Scott indicates the highly privileged position possessed by a married woman in Burma :—

"This recommendation to the married state is no more needed by Burmese maidens than it is by their sisters in other parts of the world, and they have the further inducement that they enjoy a much freer and happier position than in any other Eastern country, and in some respects are better off even than women in England. All the money and possessions which a girl brings with her on marriage are kept carefully separate for the benefit of her children or heirs, and she carries her property away with her if she is divorced, besides anything she may have added to it in the interim by her own trading or by inheritance. Thus a married Burmese woman is much more independent than any European even in the most advanced states. In the eyes of the Dammathat the old idea of the "Patria potestas" prevails indeed, and woman is regarded as a simple chattel, belonging entirely to her parents, and to be disposed of by them without any reference to her personal inclinations; but, as a matter of fact, she may do pretty well as she pleases, may marry the youth on whom she has fixed her affections, and may separate herself from the husband who has offended her by going before the village elders and stating her case; and if the complaint is just, her request is never refused."

Marriage is indeed a civil contract dissolvable by either party practically at will. A woman can obtain a divorce on the following grounds :—

(i) that her husband is poor and unable to support her,
(ii) that he is idle and will not work;
(iii) that he is incapacitated by being old, or a cripple or a chronic invalid.

A man can obtain a divorce just as readily,—

(i) if his wife has no male children;
(ii) if she does not love her husband;
(iii) if she visits houses or friends against her husband's wish.

Despite the purely secular nature of the marriage contract and the extreme freedom of divorce there is a high standard of family life. The indefinite continuance of ill-assorted and uncongenial unions is rendered impossible, and yet there is a sufficient public opinion to restrict recourse to divorce proceedings unless there is a well-established cause for separation.

129. Two Relics of Primitive Marriage.—There are two practices connected with the marriage ceremony among the Burmese which throw some

light on the primitive marriage customs of the race. They may be described in the words of Sir George Scott :—

"In the country villages, however, two ancient customs are still very generally prevalent. The one is to tie a string across the road along which the bridegroom must pass to the house of his intended. He comes in procession with all his friends, carrying the greater portion of the belongings with which he intends to set up house ; a bundle of mats, a long arm-chair, a teak box, mattresses, pillows, besides materials for the feast and presents for the bride. The people who have put up the string—called the gold or silver cord—usually young men intent on a jollification of their own, stop the happy man, and threaten to break the string with a curse on the married couple unless some money is given them. It is simple extortion, and English district officers forbid it. Nevertheless the speculation is usually successful. I suppose no one feels very niggardly on his marriage day.

"The other custom is much more singular, more ancient, and infinitely more disagreeable. On the night of the marriage a band of young bachelors of the place come and shower stones and sticks on the roof of the house where the happy couple are, keeping up sometimes such a sustained battery that the thatch or wooden shingles suffer materially, while the furniture and even the inmates occasionally do not escape injury. In Lower Burma the lads are usually bought off with a sum of money, and where the officials do not interfere to prevent it, the custom has degenerated into a system of extortion".

The origin of both these customs seems to date back to a period when each tribe lived in a state of sexual promiscuity. In such a state the appropriation of one woman by one single man in marriage infringes on the rights of the remaining males of the tribe. These naturally show their resentment at the curtailment of their rights, and it is necessary to compensate them in some other direction. In both instances it is the young men or young bachelors who maintain the practices and it would be among such unattached males in a primitive tribe that such a custom would originate. Sir George Scott gives a legendary explanation of the second custom which supports this hypothesis :—

"The learned in Burmese folk-lore assign it a much higher and more estimable beginning. When, after the world was formed, it was first peopled from the superior heavens of the Byammahs, of the nine that remained behind, weighed down by the gross earthly food they had eaten, five gradually became men and four women, when these Byammah-gyee koh-youk, these nine great ancestors of the Burmese and of all mankind, had gradually degenerated, through the substitution of Pahdahlahtah for the original favoured earth, and of Thalay rice for the leguminous creeper, desire arose among them, and four of the men took the four women to wife. The fifth man naturally resented being left compulsorily single, and pelted the happy couples with stones on their marriage night. Sympathy with the feelings of this archetypal bachelor has perpetuated the stone throwing by the loobyos down to the present day, and if there is no dearth of eligible spinsters in our times, the lonely bachelor may be allowed to express his envy at his friend's bliss without being accused of nothing but gross cupidity.

130. Marriage Customs among non-Burmese Races.—There exists an almost bewildering variety of marriage customs among the tribes and races to be found within the province. A complete description of them would expand this chapter beyond all reasonable limits. All that is possible is to glance briefly at a few salient points of the practices of the principal races. Among the Shans, marriage customs differ but little from those observed among the Burmese. There is the same freedom of selection, accompanied by an even more rapid marriage once the minds of the two people concerned have been made up. Divorce is equally free, mutual consent being all that is necessary. With the Talaings very similar customs prevail. But with the Karens there appear to be different customs, different prohibitions, and different practices with every tribe. Generally, there is great exclusiveness as to the persons who may marry, tribal and racial endogamy being the rule, developing into family endogamy among certain tribes. But the wide variations existing may be seen by comparing the marriage practices of the Sawngtung with those of the Sinsin Karens. Both are of identical racial origin, but whereas the Sawngtungs permit marriage between near relations only, the Sinsins permit intermarriage not only outside the family, but also outside the tribe, with the Taungthus, and even outside the race, with the Shans. With the Chins, marriage customs vary from tribe to tribe, but generally marriage is a mere matter of purchase, the capacity of the wife as a field labourer being the principal consideration. The Kachin marriage customs and prohibitions would require a volume for adequate treatment. Special aspects such as the great moral laxity prevailing before marriage and the peculiar class of exogamy practised are separately noticed. The actual marriage ceremony combines the idea of purchase from the parents with that of abduction. The abduction is first effected by means of an agent who then informs the parents and

offers the presents or purchase price. This is followed by a religious ceremony, worthy of mention in view of the secular nature of marriage among the other tribes of the province. The Palaungs in their marriage customs combine the ideas of lottery and abduction as described in the following extract from the Upper Burma Gazetteer:—

"Once a year, on the day fixed by the local thaumaturgist, a meeting of all the youths old enough to be married is held. They have a band and go round to the houses of all the girls who are marriageable, and 'pull them about with due regard to decency.' These romps are carried on after the parents are gone to bed, but the band must ensure that everything is strictly proper. After this the girls are said to be prepared for wooing, and three days later a meeting of the young men is held, at which lots are drawn. The names of the maids and youths are written on slips of paper and they are drawn together in pairs. It is reassuring, if somewhat unbusiness-like, to learn that the girl is by no means bound to have the young man who has drawn her in the lottery. She may coquet with whom she pleases and make her selection from among all those who come courting. This is no doubt where Burmese influence comes in. Presumably natural custom respected the fortune of the lottery, otherwise the institution seems aimless. When matters are arranged, a night is fixed on which the girl is to elope. The accepted lover takes her to a relation's house and then goes home to tell his parents. The girl has explained her departure by leaving a little packet of tobacoo and some rice for her father and mother. Convention requires the bride's parents to make a great fuss the next day, but, if the match is a suitable one, they search for her in the wrong directions and are quite ready to meet the young man's parents when they come to make formal proposal of marriage."

Among the Was, marriage is a question of purchase, wives being bought for a few buffaloes if attractive or of good family, or for a dog or a fowl or two, if appearance or family are wanting in any respect. The value of a wife is estimated much more highly among the Palès. She usually costs not less than one hundred and fifty rupees, paid in cash or goods or produce.

131. Moral Laxity prior to Marriage.—Among many of the tribes there is great moral laxity prior to marriage. Thus among the Siyin and Sokte tribes of the Chins, female virtue is not expected, provided an unmarried girl takes the precautions to prevent motherhood before marriage. Boys and girls sleep together without hindrance, and a young man openly cohabits with his mistress in the house of her parents. Similarly among the Kachins, young people are allowed to consort as they please before marriage though the marriage prohibitions are usually observed even in pre-marital intercourse. Special bachelors' huts are placed at the disposal of any couple who wish to try the experiment of living with each other. The experiments are continued indefinitely on both sides until a suitable match is found, and then marriage ensues. It is claimed that unchastity after marriage does not exist, owing to this freedom of experiment before marriage. Among the tribes in the Arakan Hill Tracts, the Mros, Khamis, and others, sexual intercourse before marriage is unrestrained. Among the Palaungs, it is considered highly improper for unmarried persons to indulge their sexual appetites within a habitation, but freedom is permitted if they retire for that purpose to the jungle. From this excessive sexual freedom among certain tribes and races to the equally excessive asceticism of the Sawngtung Karens, among whom are to be found many grey-haired bachelors and many aged spinsters whom custom has prevented from marrying, every type and variety of laxity and stringency is to be found.

132. Totemism.—Totemism in Burma has never been the subject of serious investigation among students of ethnography. Although in the Upper Burma Gazetteer it is stated that all the Indo-Chinese races have a predilection for totemistic birth stories, only the most superficial knowledge exists as to the real nature of the totemistic legends and the marriage and other taboos associated therewith. It is known that the Was claim to be descended from tadpoles, the Palaungs from one of three eggs laid by a Naga princess, the Chins from an egg of the king-crow, and the Kachins from a being who was made out of a pumpkin. It is also known that the rules for naming Shan and Kachin children and for limiting Karen and Kachin marriages are the outgrowth of totemistic beliefs. But no thorough investigation of the exact influence exerted by the legendary origin of the races or tribes of the province as a whole has been effected. I am indebted to Mr. Furnival, C.S., for the following notes on totemism among the Talaings:—

"A Talaing member of the judicial service had just been transferred up Upper Burma and as bound in courtesy the wife of the Township Judge was setting out to call on

him. Fortunately her husband noticed the tray which was being carried by her attendant.

"'What have you there?'

"'Turtle's eggs,' she replied 'I'm going to call on the judge.'

"'You silly woman' said her husband.

"'He'll kick you out of the house. Don't you know he's a Talaing."

"And now if my friend considers that this story should not have been published, he can avenge himself by amplifying and pointing out the inaccuracy in the following account.

"Talaings are of two kinds, the Buffalo Talaing (Kywè Talaing) and the Lake Talaing (In-Talaing). The former dwelt in Moulmein and Pegu, the latter in the delta round Bassein. The following customs are reported in connection with the Lake Talaings, whether they are observed also by the Buffalo Talaing I do not know.

"If a Talaing met a turtle in his path he had to look away, pretending that there was an unwholesome smell about, and exclaiming 'Rotten Rotten.' If, however, he found one in his home, or if one was brought there inadvertently by some stranger, or some small boy who thought to have picked up a good dinner by the wayside it had to be immediately killed and eaten. And the small boy was spanked. On no condition was he permitted to release it if once it crossed the threshold. Should he do so he would infallibly incur the displeasure of the guardian spirit, and illness or some other serious misfortune would ensue.

"A point of some interest is that an annual offering had to be made at the time of harvest. In certain fishing villages of England there are similarly harvest offerings of fish. But I was ignorant that this variation on the rites of Bonmagyi existed in Burma when I contributed a note on harvest offerings to the first number of this Journal. At this festival a turtle has to be killed and eaten, while a 'nga-yan,' is dressed with a nose-rope like a buffalo and offered up alive. The ceremony is termed both Nat-kun and Nat-kana but I do not know whether the last syllables are Burmese or Talaing, but as 'Ka' is the Talaing for 'fish' they may possibly be Talaing. I do not know the meaning. Nor do I know the name of the nat, but this is obtainable from the Maung Kan Yaza win and the Kyimyin daing Yazawin.

"There was formerly a song current in Moulmein, suggestive of endogamic observances, telling the said story of an Upper Burman who fell in love with a Talaing maiden :—

"In the country of Moulmein,
I met a maid and fain,
Would have wed her;
Now I reckon little odds,
What I offer to the gods,
But who can tell what hurt'll
Come of murdering a turtle,
So I fled her."

Mr. Furnival is of the opinion that there must be similar customs traceable among the other races of Burma, and now that there is a Research Society formed with the special intention of furthering studies of this nature, it is probable that a complete examination of totemistic survivals in Burma will shortly be effected.

133. Endogamy and Exogamy.—The phenomena of marriage restrictions, so fundamental in a country where caste prohibitions are supreme, are of comparative unimportance where caste is almost unknown. As will be seen on reference to the chapters on language and ethnography (IX & XI) of this volume, one of the most remarkable characteristics of the tribes and races of Burma is their racial instability. Tribal and racial designations are assumed and discarded without any reference to the actual racial origin of a community. Restrictions whether exogamous or endogamous can easily be circumvented by racial fictions which are familiar to every race and tribe in the province. The extremely large number of indeterminate and hybrid tribes is a testimony to the prevailing catholic beliefs and practices on the question of intermarriage. Racial and tribal barriers are so flimsy compared with caste barriers that the necessary for prohibitive rules and punishments for breaches of them is not urgently felt. The only instances of true endogamy and exogamy to be found in the country are among tribes and races far removed from the national life. They are either in unadministered territories, or in territories specially administered. They lose their significance and become greatly modified as the people among whom they are practised come in contact with other races. They are the exceptions rather than the rule in the life of the people. They are the relics of a tribal life fast disappearing. They are an accidental rather than an essential feature in the ethnical and marital customs of the province generally.

The prohibited degrees of marriage among the Burmese are few. Marriages with mother, daughter, sister and half sister (except in the case of the ruling sovereign, where it is enjoined), aunt, grandmother and granddaughter are

forbidden. The marriage of a son with his stepmother is permitted by the Dammathats, but it is extremely doubtful if advantage is ever taken of such permission, and it would certainly be considered with great disfavour by the general community. Among the Shans, a man may not marry his own or his wife's mother, grandmother, aunt or his sisters, and conversely with a woman, but all other alliances are permissible.

134 Endogamy among the Zayein or Sawngtung Karens.—The practice of Endogamy is found most frequently among the Karens. It is carried to an extreme form among the Zayeins, a tribe of Karens inhabiting the Loilong and Mong Pai States within the jurisdiction of the Southern Shan States. The following description of their marriage restrictions taken from the Gazetteer of Upper Burma and the Shan States, from an account by Mr. F. H. Giles is worthy of quotation if only because of its contrast with the general freedom prevailing in Burma as to the selection of partners in marriage :—

"When they reach the age of puberty all boys are made to live in a building called a haw, which stands just outside the village, and from the time of their entering this haw till their marriage they may not enter the houses of their parents, nor talk to any of the young women of the village.

"The marriage customs of the race are very singular and are so strictly adhered to that it seems certain that the race must in process of time become extinct. There are many grey-haired bachelors in the haws and many aged spinsters in the villages, whom Sawng-tung custom has prevented from marrying. Marriages are only permitted between near relations, such as cousins, and then only when the union is approved by the elders. The parents of the young man make their selection from among the eligible girls, consult the village elders, and then send the young woman three brass leg rings in the name of their son. The girl signifies consent or rejection by wearing or sending back the rings. If she consents, the parents of both families prepare a great feast; the Hmaw-Saya offers up some rice to propitiate the nats, and eating and drinking are carried on for three successive nights. Unmarried men and women meet only on these occasions, but none but relations of the bride and bride-groom are admitted. The marriage feasts seem to be particularly disgraceful orgies and constitute the whole marriage ceremony. They seem as scandalous as the Agapæ which the Council of Carthage denounced as being no better than the Parentalia of the heathen.

"This limitation of marriage to near relations only, results frequently in unions where husband and wife are very unequal in age, the husband fifteen and the wife seventy, or the reverse, widows and widowers may re-marry if the village elders approve. If a Sawng-tung woman eloped with a Shan, Taungthu or Burman, the former custom was to kill the offending pair. A large hole was dug in the ground. Across this a log was placed to which two ropes were fastened. The ends of these were noosed round the necks of the man and woman and they were made to jump into the pit and so hanged themselves. Now the custom is to excommunicate the woman; cases of the kind are said to be very rare.

"When the man and maid run off together without obtaining the permission of any one, they are forbidden ever to enter their native village, or any Sawng-tung village, again. The two villages of Kara in the Nan-kwo circle are said to be entirely inhabited by such eloping couples.

"A childless widow, on the death of her husband, is permitted to return to the house of her parents. If she has children, she remains in her husband's house, or goes to live with his parents.

"Polygamy is not permitted. Restrictions on marriage are multiplied by the rule that only certain villages may intermarry with certain villages. Villagers of Ban-pa, Nan-kwo, Sawng-ke, Lon-kye may intermarry. Loi-long, Kathe (Mong Pai) and Loi-pwi only can intermarry.

"Salon, Baw-han, Ka-la, Hkun-hawt, Me-sun (Mong-pai) and Loi-sang (Mong-pai) are similarly grouped.

"The villagers of Pa-hlaing cannot go farther for wives than the village of Kawn-sawng.

"Karathi, Me-ye, Wa-tan and Din Klawng, the last three in Mong Pai, have to seek alliances in no other villages.

"La-mung, Ta-plaw, Daung-lang and Lang-ye for the last group.

"If an unmarried woman becomes pregnant, she is forced by the elders to disclose the name of her seducer. If he admits the truth of the accusation, the pair are condemned to commit suicide in the manner described above, by jumping into a pit with ropes round their necks. No case of the kind has occurred within the memory of the present generation."

135. Endogamy among the Banyang Karens.—The Banyang Karens have not appeared in the Census Records. Nevertheless their marriage customs are so remarkable, not only for their endogamous nature but also for the absence of any degree of individual freedom among the contracting parties that the following extract from the Gazeetter of the Upper Burma and the Shan States is worthy of quotation :—

"The Banyang, or Banyok race is extremely reduced in numbers. According to Mr. Giles, it is found only in the Banyin village of Loi-long, which contains no more than six houses, situated at the foot of Byingye hill, and in Karathi, a village in the Pyinmana subdivision of Yamèthin district.

"This paucity of numbers is, it would seem, due to their extraordinary marriage customs. Mr. Giles says there is no giving and taking in marriage as with all other races in the world. It is only when a high official, such as a Taungsa, visits Banyin that there are any marriages at all. This personage orders a couple to be married and married they are, just as a man might be sworn of the peace. The Taungsa Gonwara makes a point of going there once a year so as to ensure at least one marriage in the twelvemonth. It appears that matters are further complicated by the fact that the contracting parties must be relations, as is the custom with the Swang-tung race. In a village of only six houses, however, where custom has decreed cross-marriages for many years, this requirement should be very easily fulfilled. The men are said to be very averse to marriage and 'have frequently to be taken by force to the bride's house.' This sounds very Gilbertian and one can only hope that the lady is not equally unamiable.

"The official who makes these marriages seems to be let off very easily with a marriage present consisting of nothing more costly than two pots of liquor. The village, however, prepares a feast at which every one is present. From the banquet the newly married couple are taken to a house and are not allowed to leave it for three days, during which time the village provides them with food. The banquet and the order of the Taung-sa constitute the entire wedding ceremony. The parents on either side seem to have nothing to say in the matter. Persumably, however, in a six-house village, where there is one marriage at any rate every year, couples are very clearly marked out for one another. This may account for the alleged coyness of the men. There are some races in Australia who also practice the same sort of in-marriages, the most extreme contrast to the custom of exogamy which is so much more prevalent among uncivilised and totemistic races.

"It is said that many years ago Banyin used to intermarry with Pahlaing village; some generations back, however, the two villages quarrelled and since then Banyin has been a very close marriage market. Intermarriage, even by the men, with those of another race was never permissible. There is no hint of marriages of inclination. They are all as it were officially gazetted alliances. There is nothing against widows remarrying; in fact they must, if the Taung-sa happens to order it. Since there is so much worry in marrying the people, it is not surprising to hear that divorces are not permitted."

136. Endogamy among other Karen Tribes.—The above two examples have been given at length because they are an exception to the general rule of extreme liberty of choice permitted within the province to aspirants to the status of marriage. The former Karen practice under which marriage with blood relations was customary has now generally disappeared. Among the Karens generally, endogamy is the rule to the extent that intermarriage with non-Karen races is comparatively rare. In the districts of the delta, villages are usually either exclusively Karen or exclusively Burmese; or, if there is a composite village, the Burmese or Karen sections have but little intercourse with each other. The Karens by natural instinct intermarry among themselves, and this practice is encouraged by missionary influence which is strenuously exercised to develop their racial life and progress. But apart from this general instinct against marriage with other races, there is great freedom to intermarry among the various tribes of Karens. The Manu tribe is the result of intermarriage between the Brès and the Red Karens. This freedom of intermarriage is greatly curtailed by the extremely early age at which marriage takes place among the Brè, Manu and Red Karen tribes. Such intermarriages are generally arranged by the parents, and marriage between persons living in the same village are the rule, and between persons of the same family not infrequent. Much greater freedom is permitted among the Padaungs, the Sinsins, the Mèpu and the Taungthu tribes, though this seldom results in intermarriage with persons of non-Karen race.

137. Exogamy among the Chins.—The practice of exogamy, or prohibition of marriage between members of the same tribe or village or group or section, is unknown throughout the plains and the eastern hill regions of Burma. Beyond the customary restrictions imposed on persons of near blood relationship exogamy is unknown except among the Kachins, the Lisus, and to a less degree, among the Chin tribes of the province. Exven among the Chin tribes, the custom of intermarriage between neighbouring tribes is not true exogamy. It is not a prohibition of marriage within a tribe or group. It is a diplomatic arrangement for strengthening the power of the chiefs and consolidating the power of the class. A custom for the purpose of ensuring the friendship of rival villages by intermarriage can scarcely be termed exogamy in the prohibitive or restrictive sense of the term. Moreover the practice exists to a very slight

degree. In the northern portions of the Chin Hills such questions of intermarriage do not arise. Parents practically sell their daughters to be wives and they demand a certain price for them. The considerations determining marriage are purely commercial. The only questions asked by the parents of the young man regarding the girl is as to how thoroughly and quickly she can clear a hillside of weeds, or how long it takes her to plant a patch of millet. Even in the south, where intermarriage with neighbouring tribes for political reasons is sometimes practised, it does not affect the whole of the population. It is principally concerned with the families of the tribal chiefs. The common people are free to exercise their commercial instincts in their marriage arrangements, though they sometimes ape the diplomatic customs of their chiefs.

138. Exogamy among the Kachins.—The following extract from Mr. George's well-known memorandum on the Kachins on the northern frontier of Burma indicates the precise nature and extent of exogamy as practised amongst them twenty years ago :—

"A man may not marry a woman of the same surname. It seems to be a general rule that a man should marry a first cousin on the female side, *i.e*, daughter of a mother's brother. He may not, however, marry his father's sister's child, who is regarded as closely related, blood connection being preferably traced through the female. The rule, however, seems much relaxed among the "Janpyaw" Kachins, where it is not compulsory; but I have been told that higher north, if there is a marriageable first cousin whom a man out of perversity does not want to marry, he can marry elsewhere only after paying a fine to the injured parents of the damsel. I say injured parents, as it is they who lose in not getting her price from the husband.

"The forbidden degrees of consanguinity are—

'(1) Parents and grand-parents.'
'(2) Children and grand-children.'
'(3) Father's sister's child.'
'(4) Father's brother's child (because of same name).'
'(5) Mother's sister's child.'
'(6) Uncle's child.'
'(7) Aunt's child.'

"Among the Szis (I am not sure about other tribes) there is an arrangement whereby a family is, so to speak, parent-in-law to another family generally and gives females only to the members of the latter family. The families being thus regarded as connections, it is not competent for the first family to demand females in marriage from the second family, so they have to get theirs from some other one. There appears to be a well recognised series of families to which each family either gives or from which it takes females in marriage.

"Thus the following families :—

'Malang,'	'Mislu,'
'Hpau Yan,'	'Taw Shi,'
'Laban,'	'Sinhang,'

"may take females of the family of Chumluts, but the Chumlut family has to go for its consorts to other families, *e.g.*,—

'Num Taw.'	'Hpanyu.'
'Lumaw.'	'Jang Naw.'
'Tummaw.'	'Hpu Kawn.'

"The only restraining influence compelling adherence to these rules is popular opinion. No particular punishment seems to be inflicted for breach of these sexual rules. Polyandry does not exist, but only polygamy is permissible. For a man, however, to take more than two wives is rare; sometimes, however, he cannot help himself. Successive brothers are supposed to take unto themselves deceased elder brother's widows. Occasionally, when the working of this rule would be a hardship from giving one man a plethora of females, it is permissible to make an arrangement for a still younger brother or even a stranger to take the widow. The widow has to be taken care of and fed by her husband's family even if none of them will act the part of the husband by her. If they do not, she returns to her own household, and then this constitutes a 'debt', which has to be liquidated in blood or money. The reason given for permitting polygamy is that thereby barrenness is provided against, but, although permissible, it is not only practised, monogamy being said to be fairly prevalent."

The Rev. G. J. Geis, of the American Baptist Mission, Myitkyina, has kindly supplemented these notes by a description of the practice as it has now survived :—

"According to the Kachin folklore the five main tribes descended from their great ancestor called *Wahket wa*. These are : Marips, Lahpai, Lahtawng, N'Hkum and Maran From these main tribes sprang the various sub-tribes, usually some distinguished ancestor, in folklore distinguished for his many wives and numerous children, so that his descendants look to him as their great ancestor rather than to the more remote ancestor who stands at the head of the main tribe. In this way the various sub-tribes originated, and so we have from the—

'*Marips*—the Manam, Jasan Shadau, Hpaudaw, etc.

"*Lahtawng*—N'Tau, Hpungkaw N Shu, Hkabra, Wala, Hpaujang, etc.
"*Lahpai*—Hpunggan, Kadrawn, Tsumhpawng, Hkubum, Hkashang, Kara Woisau, Kumba Hkangkawng, etc.
"*N Hkum.*—Share, Tsit, Sumdu, Lahtau, Ding Ga, etc.
"*Maran.*—Ningshan, Wayaw, Kumtung, Kumyang, etc.

"Aside from these five main tribes who trace their pedigree through Wahket Wa there are a few tribes who say they existed before him and do not claim Wahket Wa as their ancestor, such as the *Kareng and Hpauwe.*

"Originally none of these main tribes took daughters as wives from within their own tribe, because they were considered brothers and sisters, an exception was made with the Lahpai, they being the tribe from whom chiefs were made, were allowed to intermarry after seven generations.

"In time, however, these tribes widely scattered, and as stated above some of the men within a tribe became renowned so that gradually these renowned families of the same tribe intermarried, so at the present time all the main tribes intermarry with the large subtribes or powerful families of the same tribe. A Hpungkaw Lahtawng may for instance marry a Hpaujang Lahtawng, etc. So that at present the most important question is not, is the girl whom the young man is about to marry of a marriageable tribe, but rather has her branch of the great family been far enough removed in point of time and have his parents been in the habit of taking women from that branch of the family or not. Of course the more respectable families are rather careful to observe these customs, but as no penalty follows a breach of this custom their observance has become rather lax, and many do not question much the time nor the relationship but marry whom they can secure either from sentiment or economic reasons.

"A subtribe of the Marips who live in the Hkahku country follow a rather strange custom for which they are called *Hkau Wang.* A certain number of families or even a whole village give their daughters around in a circle. A gives to B and B gives to C and C gives to D and D gives in turn to A. In each case a record is kept of the price paid for the wife, and so not more is given or asked than was asked or given when a marriage took place in the given family. In case an outsider, however, asks for a daughter from this circle or village a much higher price may be asked."

139. Exogamy among the Lisu Tribe.—The following note on the marriage customs of the Yawyin or Lisu, a tribe on the upper reaches of the Salween river has been supplied by the Rev. G. J. Geis :—

"Yawyins trace their descent from a brother and sister who saved their lives in the great flood by taking refuge in a huge pumpkin; their first born was the father of the Yawyins and from him descended the following great families.

"Kuhpa, Tsau Ja, Ngaw Hpa, Hkaw Hpa, Lama, Waw Hpa (pronounce short), Waw Hpa (pron. long), Tawng Ja, Ze Hpa, Bya Hpa, Li Ja and N Naw Hpa. In seeking or taking a wife a man may take a woman from any of the families but his own, because women of his own family make offerings to the same ancestors and so are considered brothers and sisters, no matter how remote they may be from one another in time or distance.

"In spite of the fact, however, that a Yawyin man has theoretically all the maidens outside of those bearing his family name to choose from, yet in practice from economic reasons he is very limited in his choice.

"The elders of the village or near relatives of a man usually seek a woman for him among the families to whom his family has given a woman in marriage in a previous generation, so that a man usually marries either his maternal or paternal cousin. For instance, a Kuhpa man takes a Lama woman, in the next generation a Lama man may ask for a Kuhpa woman, and so on back and forth for successive generations.

"This narrow circle of marriage relationship is due to the fact that a careful record is kept of the price paid for a woman at the time of marriage, so that in the next generation when a woman is wanted by a family it naturally seeks one among the families of whom it had given a woman in the past, for that family dare not ask more or a larger price than they had received.

"It is only when a man is unable to find a suitable woman among the families with whom his family had been accustomed to intermarry that he will seek a woman outside of this circle; for by going outside of his marriage relationship he must usually pay a much larger price for his wife. A man may, however, take a woman other than a Yawyin without incurring the loss of prestige among his people, in fact he may enhance it, if the woman should come from some more powerful neighbour as the Chinese. Should a man, however, cohabit with a woman of his own family or one bearing his family name, the man is expelled from his family and told not to call himself any longer by his former name, because of the great shame he has brought upon them and his ancestors.

"Unlike Kachin maidens Yawyin maidens live a rather chaste life. Should a man, however, have sexual intercourse with a maiden he must either marry her, if she has not been promised to another or pay a heavy fine in silver or gold; in case she had been promised to another, that man may take her at once without paying the usual price, as she by her infidelity has hastened the marriage, this price may be paid any time later. Should there be any issue from this sexual intercourse the illegitimate child belongs to the mother and can never be claimed by the father as is customary among Kachins."

140. Cross-Cousin Marriage.—Among Mahomedans and all classes of the

population in Southern India cousin marriage is prevalent. In Burma, its most vigorous survival is amongst the Chins. The following description of the extent to which the custom prevails and the cause of its origin is taken from the British Burma Gazetteer published in 1880:—

"Among the Chins, who occupy the eastern and western slopes of the Arakan mountains, daughters as soon as born are given to one of their brothers or if there is no brother to one of their father's sister's sons who in after life gives her away in marriage and who is always treated with great respect by the husband. Girls are usually affianced when young to one of their cousins but the match is not unfrequently broken off by one or the other, in which case a fine has to be paid for the breach of promise. The marriage feast is prepared in the bride's house, after the wisemen have inspected the liver of a pig in the bridegroom's and pronounced the omens to be favourable; if the liver is unpropitious on three successive occasions the match is broken off and the girl's parents make presents to the bridegroom. When the marriage is about to take place the bridegroom provides large quantities of khoung, a fermented liquor made from rice of which the Chins are inordinately fond and his friends bring pork and the girl's family produce fowls. In the centre is placed the pot of liquor and in it is fastened a neatly-pealed bamboo with a cross piece let into a slit at the top, this separates the two parties and any one crossing from one side to the other has to pay a pot of khoung as a fine. An elder on the bridegroom's side proposes that the marriage shall take place and an elder on the bride's side recites the decision of Hlee-neu, the common ancestor of all human beings, on being applied to by the founders of the Chin race who were brother and sister, *viz.*, that they should marry, and their sons marry their daughters, but that in all subsequent generations, brothers' sons should, whenever possible, marry sisters' daughters. The bridegroom makes presents to the brother who owns the bride who, if he is satisfied, signifies his assent by eating some of the bridegroom's pork and the ceremony is complete; bridal presents are given and eating and drinking commence; should any of the bridegroom's party touch the fowls or of the bride's, the pork, a fine of khoung has to be paid, and the feast gradually becomes a scene of drunkenness and riot."

It is significant that in the Chin Hills Gazetteer published in 1896, although of marriage customs are treated at some length no reference is made to cross-cousin marriage, which indicates that the practice, far from being universal, is gradually dying out.

Instances of cousin marriage and marriage of near relations among the Karens are given in the extracts quoted in paragraphs 134 and 135 above.

Other instances of cross-cousin marriage are to be found among the Kachins, the Lisus and the Palaungs. They are permissive rather than compulsory. Among the Kachins a man may not marry a woman of the same surname, but it is a general rule that he should marry a first cousin on the female side, that is, the daughter of a mother's brother. He may not, however, marry his father's sister's child. The better families observe these customs, but those who are of poor stock and have no reputation to uphold have no scruples about violating the traditional rules. Among the Lisus, cross-cousin marriage is based on commercial considerations. The elders of the village or near relatives of a man usually seek a woman for him among the families to whom his family had given a woman in marriage in a previous generation, so that a man usually marries either his maternal or paternal cousin. For instance, a Kuhpa man takes a Lama woman, the next generation a Lama man may ask for a Kuhpa woman and so on back and forth for successive generations. This narrow circle of marriage relationship is due to the fact that a careful record is kept of the price paid for a woman at the time of marriage, so that in the next generation when a woman is wanted by a family, it naturally seeks one among the families to whom it had given a woman in the past, for that family dare not ask more or a larger price than they had received. Among the Palaungs the general rule followed is that a man may marry his mother's brother's daughter, but may not marry the daughter of his mother's sister, his father's sister or his father's brother. This rule is, however, subject to modifications according to locality.

141. Polygamy and Polyandry.—Polyandry is nowhere practised in the province. Polygamy is recognised and practised among all its peoples. Among those races which have come under the influence of Buddhism there is a strong and growing prejudice against polygamy and the practice, though allowable, is rare. It may be said that it exists only amongst those who are above, or are beneath public opinion. Among some of the animistic races there is sometimes compulsory polygamy. Thus, with the Kachins, successive brothers must marry a deceased elder brother's widows, and it may happen that when several brothers die, one brother may be saddled with more compulsory wives than he is able to support. It is then permissible to arrange for a younger brother or even a

stranger to take the widow. Among the Chins, whose marriage customs show many points of similarity to those of the Kachins, polygamy is permissible and unrestricted, and a man is compelled to take the wife and children of a deceased brother.

142. Terms of Relationship.—A considerable amount of information has been collected in connection with the census enumeration concerning the different terms of relationship in the various dialects of the province. These are printed as Appendix B of this Report. Considerable information as to marriage customs should be gleaned from a consideration of the following points :—

(*a*) relationships distinguished in the local nomenclature, but not in English ;
(*b*) relationships, differentiated in English, but not in the vernacular ;
(*c*) terms of relationship which while they have a definite connotation, are also used in a classificatory sense.

There has however been no time available in the interval between the receipt of the statements and the publication of this Report for a careful examination of their contents. Nor has the Census Superintendent the necessary linguistic and anthropological knowledge to ensure that any conclusions he might draw after a necessarily hurried and superficial study of the statements would be worthy of acceptance. It is hoped that the lists comprising Appendix B of this volume will be of assistance both for reference, and as a means of enabling a complete investigation by competent enquirers of the marriage customs of the province to be initiated.

143. Birth Customs.—The following notes on the birth customs of the Burmese for which I am indebted to Mrs. Smart of Myingyan, supplement the information given in the first chapter of "The Burman, his life and notions":—

"*Before Birth.*—As soon as the bearing pains begin, the woman or her mother or a woman friend, offers on her behalf to the Anaukgadaw also called the Anaukmebya, the following ;—one pyi of rice in a pyi measure, four annas, and a few heads of garlic, praying at the same time and saying "Let the door of life be open. Let the new life come forth. Let the pain and sorrow soon be over and the joy last for long, etc."

"*After Birth.*—When the child (a boy) is born, the midwife draws the navel cord out with seven pulls holding her breath all the while—this is supposed to draw the full life into the child. Less than seven times would mean a proportionate loss of strength—the cord is then placed on a silver coin and cut, and for some reason unknown, only a rupee or eight anna piece is used. This coin becomes the property of the midwife. Very poor parents use a piece of firewood for this cutting, and failing the above mentioned coins, firewood is always used. An important item of the midwife's duties is the measuring of the navel cord which must be measured exactly to the child's nose and cut at that spot. The cutting is done with a cheap knife purchased for this special purpose. This knife, after the operation, is placed in the ashes until the navel cord drops (placing in the ashes is supposed to hasten the dropping of the cord) and is then thrown away.

"The mother now performs the ceremony of propitiation to the Anaukgadaw or Anaukmebya. Holding some uncooked rice in the palm of her hand, she shikoes to the west and prays as follows: 'Don't frighten or startle me. Don't injure me. Don't cause me to catch my breath, etc.' Then the rice is scattered on the low wooden stand on which she is to sit for the sweating and this rice prevents the Anaukgadaw from troubling her.

"Each day when she eats or drinks, she holds the dish towards the west saying 'Please do eat and drink,' and after waiting a minute or so, she eats the food or drinks the water. The placenta is buried, care being taken that it is not buried towards that point of the compass that the Naga is facing at the time. (See Note i.) A warm bath is taken every day and the patient is rubbed with saffron three times a day. She takes saffron and salt dissolved in hot water. Before being dissalved the saffron and salt are worked together and formed into balls the size of a hazel nut and three balls are taken at a dose. 'One for the Buddha, one for the law and one for the assembly.'

"Every day the woman is shampooed and bound with a cloth 5 cubits long and her head is bound with 5 gaung-baungs to prevent headaches.

"Each day at one o'clock she is sweated. Seated in front of a blazing fire she first faces it, then turns her right side to it, then her back and then the left side. The parts of the body not exposed to the fire are heavily covered with cloths, and together with the heat of the fire, produce a profuse perspiration.

"The woman remains indoors for seven days mostly spending them seated on the Migat, but on the seventh day she must make an effort and take seven steps on the earth. This followed by a cold bath prevents swelling of the feet, etc.

"*The Cradle Ceremony* (A Boy).—For the first seven days of his existence little notice is taken of a Burmese child. Beyond being fed and bathed no ceremonies or offerings are made on his behalf—but on the seventh day the Cradle Ceremony takes place.

"Early in the morning a relation or friend goes to market and purchases (1) Cradle; (2) Rope ; (3) Hooks ; (4) Cocoanuts ; (5) Plantains ; (6) Cakes fried in oil ; (7) a small

earthen pot ; (8) a stick of Kimondi and some soap nut. Nothing must be bought before the child's birth, as it brings great ill-luck.

"Reaching home, the cradle is thoroughly washed and then hung. At each corner of the cradle is tied a small packet wrapped in a piece of cloth and containing a little paddy, rice, money (more or less according to the circumstances of the parents) grass and various leaves. (See Note ii.)

"A covering is then spread in the cradle into which is then placed a complete set of men's clothes (preferably a very old man's clothes), a paso, a dah, a razor, gold and silver (the family jewels), a mirror, a comb, a ruby ring if obtainable, and earrings set with any other precious stones. Thanaka is then ground and sprinkled in the cradle.

"After the cradle is ready for occupation, the midwife warms the Kimondi aud soap nut in the new small chatty, rubs them together and washes the child's head, she then shaves it, catching the hair in a strip of white cloth. Hair and cloth are afterwards placed in the jar and thrown away.

"The child is then fed with the 'Mingala' food or 'Food of ceremony'. Taking a plate of rice and a spoonful of water the midwife places first a grain of rice to the child's lips saying 'Mingala rice'. Throwing away the grain of rice she next carries the water to the child's mouth saying 'Mingala Curry'. This is done three times.

"Seven threads of white cotton twisted together are placed seven on each wrist, seven on each ankle and seven round the child's neck.

"Cradle and child are now left, in order to attend to the Nats—First the house nat has to be propitiated and the child nat.

"The house nat is represented in every Burmese house by a cocoanut, which may be seen any day hanging in a cane frame, with red and white threads tied round the upper part of it. These threads are the Nat's gaung baung. Great care must be taken in selecting this fruit. It must be large and without flaw or blemish. The shoots also must be perfect. If not approved by the Nat he will bring trouble on the folk of the house. Often as much as 8 and 12 annas is paid for a particularly fine specimen. This cocoanut is changed three times each year, at Wazo, the beginning of Lent, at Thadingyut, the end of the Lent, and during Tabaung or Tagu, which is called the Nats happy time or 'play time'. It must however never be changed on a Wednesday or on the 4th, 6th or 9th of the waxing, as during that time the Nats are busy elsewhere. At the birth of a child it is also changed.

"The ceremony of the offering on the mother's behalf is then performed. The old cocoanut is removed (afterwards used). The new one is balanced on two bunches of plantains, and on a tray near by are placed 200 areca-nuts, some flowers and some pickled tea.

"For the child nat on the child's behalf are offered—A round cake with syrup inside. A long cake and a flat cake, some flowers, an egg and some cooked sweet rice. All the above cakes are made of sweet rice flour. The offerings are now placed aside for a while.

"Another cocoanut balanced on two bunches of plantains is carried to the cradle and placed in it. The cocoanut is then removed and placed under the cradle. The plantains are placed one at the head and one at the foot. After this the child is dressed in two pieces of cloth dyed in saffron (a sort of preliminary shin-byu-ing in case of the child's early death). A pesa is placed on his shoulder and he is then lifted by the midwife seven times as if he took seven steps, and at the seventh he is placed in the cradle. The plantains are removed and the cradle is then rocked to and fro seven times by the oldest man in the house, who at each swing prays or wishes 'May the child live to 120 years of age! May he be wise! May he be rich! May he be beautiful! May he be strong! etc.

"The child is left in the cradle and now the cocoanut which represents the household nat is lifted into its place in the cane hanging frame, and the mother placing the offerings before it says 'One more slave has been born to serve you—take care of him'.

"The offerings to the child nat are then made with the prayer 'Don't pinch my child ; don't tickle him ; don't make him laugh ; don't make him cry'.

"I may here mention that the nat's child is very troublesome and when even the child cries or laughs a lot, or is fretful or wakeful, it is due to being pinched or tickled by this imp of mischief, who has to be propitiated in various ways by being offered a 'golden husband' (a yellow painted doll), a 'golden house', 'golden food', etc.

"The offerings made to this nat must only be eaten by men or boys as the nat does not approve of persons of her own sex.

"The midwife is now shikoed by the mother of the child, for all these days the child has been owned by the midwife. Now, however, the mother redeems it by payment of four annas. She is then paid and dismissed taking with her the coin on which the navel cord was cut, the plantains and cocoanuts that were placed in the cradle and the four annas redemption money. This must I find be always four annas. The fee can be any amount for the midwife's services, but to redeem the child four annas and nothing else is ever paid. One woman said that four annas tha-nat might originally have had some connection with the word son.

"NOTE (i)—

Naga's face west during Tabaung, Tagu, and Kason.
Naga's face north during Nayon, Wazo, Wagaung.
Naga's face east during Tauthalin, Thadingyut and Tazaungmon.
Naga's face south during Natdaw, Pyatho and Tabodwai.

"NOTE (ii) The little packets—

"Certain or all, if possible of the following leaves are used but, if all are not obtainable then the child's day leaf must be used if it can be got—

Sunday	...	...	Cocoanut.
Monday	...	...	Gangaw.

Tuesday	... ...	Grass.
Wednesday	... ...	Kayaywet.
Thursday	... ...	Thabyeywet.
Friday	... ..	Thiywet.
Saturday	... ...	Danywet.

"*A Girl.*—For a girl a woman's clothes are placed in the cradle instead of a man's. The other things are the same, a Thanaka stone being added to the list. Instead of the yellow robe the midwife pretends to bore her ears, just touching the ear with a needle. Also a girl is not lifted seven times before being placed in the cradle.

"The other ceremonies are exactly the same as for a boy.

STATISTICAL.

144. Statistics.—Next to the fundamental division of sex, the most important categories into which the inhabitants of a community are divided are based on their civil condition, *i.e.*, whether they are unmarried, married or widowed. The materials for an analysis of the figures relating to these three classes of the population are to be found in Imperial Tables VII, VIII and XIV. These are supplemented by the following Subsidiary Tables appended to this Chapter :—

Subsidiary Table I.—Distribution by civil condition of 1,000 of each sex, religion and main age period at each of the last four censuses.

Subsidiary Table II.—Distribution by civil condition of 1,000 of each sex at certain ages for Buddhists, Animists and all religions combined, by Natural Divisions.

Subsidiary Table III.—Distribution by main age periods and civil condition of 10,000 of each sex and religion.

Subsidiary Table IV.—Proportion of the sexes by civil condition at certain ages for Buddhists, Animists and all religions combined, by Natural Divisions.

Subsidiary Table V.—Distribution by civil condition of 1,000 of each sex at certain ages for selected castes.

145. Marriage proportions for England, India and Burma compared.—In comparing the statistics of marriage for Burma with those for India in general, the first point to be noticed is the small proportion of married persons in Burma as compared with India. Amongst the Hindus, marriage is a religious sacrament, the neglect of which is followed by evil consequences. A Hindu must marry and beget children to perform his funeral rites lest his spirit wander uneasily in the waste places of the earth. If a Hindu maiden is unmarried at puberty, she is a source of social obloquy to her family and of damnation to her ancestors. In the case of Mahomedans and Animists in India, though the religious sanction is wanting, the marriage state is equally common, partly owing to Hindu example and partly to the conditions of life in primitive society where a wife is almost a necessity, both as a domestic drudge and as a helpmate in field work. The difference of conditions in Burma is reflected in the fact that for every 1,000 males 569 are unmarried in Burma, against 492 for India as a whole. Among females the discrepancy is even more noticeable, there being only 344 unmarried females per thousand in India against 519 in Burma. The proportions of married persons naturally exhibit similar discrepancies. Married males in India and Burma are 454 and 389 per thousand respectively, while married females are 476 per thousand in India and 376 per thousand in Burma. The large difference in the proportions of widows, 180 and 105 per thousand in India and in Burma, is partly due to the prohibition of widow marriage among the Hindus, and partly to the freedom of widows to re-marry among the tribes and races of Burma.

Civil condition of 1,000 of each sex.

	Sex.	Unmarried.	Married.	Widowed.
Burma, 1911.	Males ...	569	389	42
	Females ...	519	376	105
India, 1901.	Males ...	492	454	54
	Females ...	344	476	180
England, 1901.	Males ...	608	357	35
	Females ...	586	340	74

The proportions of persons in each civil condition in Burma approaches more nearly to those existing in England than to those of India The marginal statement to this paragraph indicates that both for males and females, for persons unmarried, married and widowed, the figures for Burma are considerably beyond the halfway line between India and England. The divergence from Indian conditions and the approximation towards those obtaining in England are more marked in the case of females than of males. Thus the proportions of married persons per thousand in England, Burma and India are 340, 376 and 476 respectively for females and 357, 389 and 454 for males. It is therefore necessary to observe that the general conclusion propounded in paragraph 721 of the India Census Report for 1901 to the effect that marriage in Europe is far less universal than in India applies with a considerable modification of force to the province of Burma.

146. Child Marriage.—The great contrast between marriage in India and in Burma, however, does not lie so much in the general proportions of persons in each civil condition, as in the age at which marriage is undertaken. Marriage in Burma before the age of 10 is practically unknown, the absolute numbers of males and females not being sufficient to affect a statement calculated at the rate per thousand of children within the age periods 0—5 and 5—10. In India the numbers married at these ages are sufficient to form quite appreciable proportions of the total numbers. In particular, ten per cent. of girls in India between the ages of 5 and 10 are already married. But even at the later ages from 10—15, only one male and seven females per thousand of each sex are married in Burma, against 104 males and 423 females per thousand at similar ages in India. Even at the comparatively late age of 15 to 20, the proportion of married males is less than one-fourth, and of married females is exactly one-third of the corresponding proportions in India. The problem of infant marriage, and even that of child marriage, does not exist in Burma. Allowing for the difference in the ages at which children attain maturity, the age of marriage in Burma is but little earlier than that existing in England. It certainly approximates far more to the English than to the Indian standard. Writing in 1882 Sir George Scott stated that under the old system a young man was not considered of age to marry till he was twenty-four or twenty-five: but that now the age has become very much younger, most men marrying when they are eighteen or nineteen, and thirteen or fourteen being the common age for girls. The census statistics would however indicate that the tendency towards the marriage of males at a younger age has operated far less than is suggested. The number of Buddhist males recorded as marrying before the age of 20 is only 70 per thousand, as against 55 per thousand (for British Burma only) in 1881. This indicates but a slight tendency towards a reduction in the masculine age for marriage. The proportions for Buddhist females married before the age of 15 are identical at five per thousand for Burma in 1911, and for British Burma in 1881, indicating the absence of a tendency towards a reduction in the feminine age for marriage.

Married persons per 1,000 of each age period.

		0—5.	5—10.	10—15.	15—20.
India, 1901 ...	Male ...	7	36	104	334
	Female ...	13	102	423	777
Burma, 1911...	Male ...	...	...	1	78
	Female ...	...	...	7	259
England, 1901	Male ...	...	...	...	3
	Female ...	...	...	...	15

Married Buddhists per 1,000.

	10—15.	15—20.	20—40.
Male ...	...	70	692
Female	5	248	761

147. Marriage between the Ages of 10 and 15.—Columns 6 to 9 of Subsidiary Table I of this chapter indicate a curious departure from the normal proportions of married persons between the ages of 10 and 15 at the census of 1901. Mr. Lowis in commenting on the marked increase in the case of both sexes in the number of married children between ten and fifteen years of age considered that it was indicative merely of the increase in the total of Indian immigrants within the province. But an analysis of the proportions by religions demonstrates that the increase was as marked among the indigenous Buddhist

and Animist races as among the immigrant Hindus and Mahomedans. Strangely enough, the increase has not been maintained for these races in the current census. The proportion of males of all religions, which rose from one per thousand in 1891 to five per thousand in 1901 has returned to the original proportion of one per thousand in 1911. There has been a similar, though not quite so complete reaction in the proportion of females which has reverted from 13 per thousand in 1901 to 7 per thousand in 1911 against 5 per thousand in 1891. The figures for the Buddhist and Animist races show similar enhancements and reactions. It is difficult to draw any definite conclusions from the marked enhancement of the figures for 1901 over those of the three years 1881, 1891 and 1911, but there probably was some adventitious circumstance operating in 1901 to enhance the proportions of married persons between the ages of 10 and 15 above their true level.

Married persons per thousand between the ages 10 and 15.

Religion.	Sex.	1911.	1901.	1891.	1881.
All religions	Males ...	1	5	1	1
	Females ..	7	13	5	8
Buddhists ...	Males ...	...	4	...	...
	Females ...	5	10	4	5
Animists ...	Males ...	1	5	3	1
	Females ...	9	19	11	8
Hindus ...	Males ...	36	56	21	38
	Females ...	151	141	62	103
Mahomedans	Males ..	6	20	4	5
	Females ...	29	85	48	69

148. Widow Marriage.—In Burma there are no restrictions preventing widows from re-marrying. Indeed, among some of the races within the province, the Chins and the Kachins, there is a contrary custom of compulsory widow remarriage, though the statistics of widowhood among these races suggests that the custom is not universally observed. In India, the prohibition of the second marriage of a widow is classed with child marriage as one of the customs impressing itself distinctly on the census statistics. It is therefore natural that the statistics showing the proportions of widowhood in Burma should show marked divergencies from the corresponding statistics for India. But the whole difference between the two must not be attributed to the prohibition of widow marriage in India and its permission in Burma. An even more potent influence in causing the divergence is the practice of marrying girls in India before they attain physical maturity. This results in a large proportion of child widows in India at ages when girls in Burma have not even begun to think of marriage. The close connection between early female marriage and a high proportion of widowhood can be seen in Subsidiary Table V where the comparatively earlier female marriage of the Arakanese, Kachin and Shan races is accompanied by high proportions of widowhood. The comparatively small number of widows in Burma is therefore due to the operation of two causes. The later female marriage age reduces the number of females who become widows, and this number is still further reduced by the number who re-marry.

Widows per 1,000 Females.

Age.	India, 1901.	Burma, 1911.
0—5	1	...
5—10	5	...
10—15	18	...
15—20	44	15
20—40	153	77
40—60	503	265
60 & over	825	620

149. Marriage by Religions.—It is not necessary to enter into a detailed examination of the marriage statistics of the population by religions. The most important objects of such an analysis would have been to obtain comparisons as to the prevalence of child marriage and the prohibition of widow-marriage, and also to see how far the statistics indicate the polygamy, hypergamy and of the existence of varying systems of endogamy, exogamy and prohibited degrees among the various religious communities. The questions of child and widow marriage and hypergamy are not of importance in Burma, nor is the amount of polygamy sufficient extent to be appreciable in the census statistics. It is also exremely doubtful if marriage restrictions influence the census statistics to any

Married persons.

—	Males.	Females.	Excess Males.
Hindus ...	150,171	40,412	109,759
Mahomedans ...	117,760	59,264	58,496

appreciable extent, and even if they did affect the figures, their influence would be detected in the marriage statistics for tribe or race rather than for religion. Moreover, the statistics of marriage by religion are complicated by the amount of intermarriage existing between members of different religions. It is possible for a large number of possible combinations of intermarriage to be effected among the Buddhist, Animist, Hindu, Mahomedan and Christian communities, the members of which, with the exception of the Hindus and Mahomedans, intermarry freely with one another. When to the disturbing effect of intermarriage is added that of migration it is obvious that the results are of too great complexity to enable any particular conclusions to be drawn with certainty. The excess married males among the Hindu community number 109,759 and among the Mahomedan community 58,496. Whether the wives of the excess males are in India, or belong to the indigenous races of Burma, any results based on such disproportionate numbers are bound to be divorced from reality, if treated according to the proportions for each religion separately. For Buddhists, the figures for the province as a whole may be taken, the numbers of Buddhists being so great in comparison with those of all the other religions combined, that the proportions for Buddhists differ but slightly from those for the province. For Animists, a study of marriage by separate races is more profitable than the consideration of proportions over widely varying communities held together by the slender tie of spirit worship.

150. Marriage by Race.—In 1891 Mr. Lowis discussed the question whether the matrimonial limitations of some of the animist races of the province left any impress on the figures in Imperial Table XIV, and arrived at the conclusion that they did so in the case of the Kachins and the Karens. This conclusion was based on an enumeration of 50,000 of each sex. The proportions for the current census have been based on a wider enumeration, including practically the whole of the races coming within the regular census enumeration. It is a matter of extreme doubt whether the restrictions have left any impress on the tables. The proportions for selected races are given in Subsidiary Table V of this Chapter. The marriage restrictions of the Kachins have resulted in a proportion of 373 married females per thousand, identical with the proportion for Buddhists in the province, and a higher proportion of married males than for Buddhists. It is possible that the exclusiveness of the Karens, and their restrictions of marriage to persons of their own tribe or race has resulted in the low recorded proportions of married persons both male and female; but the proportions of married females among the Talaings, among whom no such restrictions exist, are equally low; and the Talaing proportion of married males is even lower than that of the Karens. The high proportions of married persons among the Chins which Mr. Lowis mentioned with surprise is again manifest in the tables. A study of the proportions for separate races in 1901 led to the conclusion recorded in the Census Report of 1901 that in communities where the marriage tie is so loose and connubial relations are so haphazard as among the hill tribes of Burma, it is almost impossible to predicate with any certainty the outcome of an enumeration of the married by sexes. Considering however the wide diversity of races and conditions, there is not a wide range of variation in the proportions of married persons shown in columns 3 and 21 of Subsidiary Table V. The proportion of married males ranges from 360 per thousand among the Danus and the Talaings to 397 among the Arakanese, and the proportion of married females ranges rather more widely, from 359 among the Taungthus to 408 among the Shans. There would appear to be natural proportions for the province from which the proportions of married persons among its various tribes and races do not diverge widely. The divergencies which exist are influenced by many factors, of which the customary age of marriage and professed marriage restrictions and prohibitions are not the most potent. Intermarriage with other races, and racial instability leading to nominal changes of race, are disturbances which prevent reliable conclusions from being drawn from the data collected.

Married persons per 1,000 of each sex.		
Race or religion.	Males.	Females.
Buddhists ...	382	373
Animists ...	390	383
Kachins ...	389	373
Karens ...	368	362
Talaings ...	360	362
Chins ..	395	404

SUBSIDIARY TABLE I.—*Distribution by Civil Condition of 1,000 of each Sex, Religion and Main Age-period at each of the last four Censuses.*

Religion, Sex and Age.	Unmarried.				Married.				Widowed.			
	1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881
1	2	3	4	5	6	7	8	9	10	11	12	13
All Religions.												
Males ...	569	565	558	579	389	393	394	382	42	42	48	39
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	999	995	999	999	1	5	1	1	...	...	...	...
15—20 ...	919	922	932	935	78	75	63	62	3	3	5	3
20—40 ...	298	298	268	300	665	666	686	661	37	36	46	39
40—60 ...	89	88	49	57	817	814	843	845	94	98	108	98
60 and over ...	89	83	41	35	656	652	679	718	255	265	280	247
Females ...	519	510	506	519	376	381	378	389	105	109	116	92
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	993	987	995	992	7	13	5	8	...	...	...	...
15—20 ...	726	720	732	670	259	265	246	311	15	15	22	19
20—40 ...	160	160	130	93	763	764	780	839	77	76	90	68
40—60 ...	70	68	35	19	665	653	686	729	265	279	279	252
60 and over ...	91	83	48	20	289	282	392	301	620	635	560	679
Buddhist.												
Males ...	575	571	568	589	382	386	383	373	43	43	49	38
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	1,000	996	1,000	1,000	...	4	...	...	...	...	...	...
15—20 ...	927	931	940	943	70	66	55	55	3	3	5	3
20—40 ...	269	277	255	284	692	686	696	676	39	37	49	40
40—60 ...	78	79	48	52	827	823	867	852	95	98	85	96
60 and over ...	87	81	41	34	653	650	678	719	260	269	281	247
Females ...	521	511	507	522	373	379	376	387	106	110	117	91
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	995	990	996	995	5	10	4	5	...	...	...	...
15—20 ...	737	731	744	686	248	254	234	295	15	15	22	19
20—40 ...	161	161	132	93	761	762	777	839	78	77	91	68
40—60 ...	71	69	35	18	670	656	689	737	259	275	276	245
60 and over ...	93	84	37	20	291	279	301	304	616	637	662	676
Animist.												
Males ...	568	554	547	575	390	401	400	384	42	45	53	41
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	999	995	996	999	1	5	3	1	...	...	1	...
15—20 ...	921	911	909	920	74	85	83	76	5	4	8	4
20—40 ...	366	353	287	228	595	605	659	728	39	42	54	44
40—60 ...	82	83	48	26	825	814	822	866	93	103	130	108
60 and over ...	71	54	25	14	707	730	690	727	222	216	285	259
Females ...	496	485	498	515	383	404	407	398	121	111	95	87
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	999	1,000	1,000	...	1	...	...	...	...	...	...
10—15 ...	991	980	988	992	9	19	11	8	...	1	1	...
15—20 ...	756	732	683	667	235	258	301	322	9	10	16	11
20—40 ...	183	161	109	99	733	760	816	835	84	79	75	66
40—60 ...	52	50	26	21	611	655	683	700	337	295	291	279
60 and over ...	61	54	39	23	252	377	316	311	687	569	645	666

SUBSIDIARY TABLE I.—*Distribution by Civil Condition of* 1,000 *of each Sex, Religion and Main Age-period at each of the last four Censuses.*

Religion, Sex and Age.	Unmarried.				Married.				Widowed.			
	1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881
1	2	3	4	5	6	7	8	9	10	11	12	13
Hindu.												
Males ...	483	475	394	451	481	487	571	505	36	38	35	44
0— 5 ...	999	1,000	1,000	} 998	1	...	...	} 2	...	...	...	...
5—10 ...	995	994	1,000		5	6	...		...	...	...	...
10—15 ...	963	942	977	962	36	56	21	38	1	2	2	...
15—20 ...	802	813	800	838	194	181	192	159	4	6	8	3
20—40 ...	424	423	350	421	549	549	625	548	27	28	25	31
40—60 ...	233	234	110	162	684	675	803	731	83	91	87	107
60 and over ...	220	220	84	113	556	545	657	630	224	235	259	257
Females ...	396	398	364	344	525	506	530	554	79	96	106	102
0— 5 ...	999	1,000	1,000	} 998	1	...	...	} 2	...	...	...	...
5—10 ...	983	993	999		17	7	1		...	...	...	...
10—15 ...	848	854	936	894	151	141	62	103	1	5	2	3
15—20 ...	272	325	319	276	715	653	653	699	13	22	28	25
20—40 ...	75	94	64	68	876	843	869	868	49	63	67	64
40—60 ...	68	72	30	18	607	583	612	600	325	345	358	382
60 and over ...	91	79	24	11	269	231	252	215	640	690	724	774
Mahomedan.												
Males ...	528	513	476	503	434	445	487	451	38	42	37	46
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	999	999	1,000	1,000	1	1	...	...	...	...	...	...
10—15 ...	994	979	995	994	6	20	4	5	...	1	1	1
15—20 ...	858	851	875	894	138	142	118	102	4	7	7	4
20—40 ...	346	324	269	326	618	635	699	631	36	41	32	43
40—60	135	128	46	77	773	773	863	809	92	99	91	114
60 and over ...	108	115	26	42	682	662	730	716	210	223	244	242
Females ...	511	514	489	472	396	388	397	418	93	98	114	110
0— 5	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10	999	999	1,000	1,000	1	1	...	...	...	...	...	...
10—15	971	911	950	929	29	85	48	69	...	4	2	2
15—20	413	412	390	344	570	557	572	626	17	31	38	30
20—40	105	107	67	53	817	811	839	855	78	82	94	92
40—60	62	72	24	19	610	570	598	581	328	358	378	400
60 and over ...	69	87	24	22	225	223	209	181	706	690	767	797
Christian.												
Males ...	613	614	614	624	354	352	352	345	33	34	34	31
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	1,000	994	998	999	...	6	2	1	...	...	...	...
15—20 ...	964	940	951	951	35	58	45	48	1	2	4	1
20—40 ...	419	407	418	427	555	566	552	548	26	27	30	25
40—60 ...	85	80	50	57	821	812	843	844	94	108	107	99
60 and over ...	65	70	27	27	699	688	729	733	236	242	244	240
Females ...	554	559	543	547	366	365	376	372	80	76	81	81
0— 5 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
5—10 ...	1,000	1,000	1,000	1,000	...	...	...	...	...	...	...	...
10—15 ...	996	981	994	991	4	19	6	9	...	...	...	...
15—20 ...	810	774	734	708	186	220	254	287	4	6	12	5
20—40 ...	197	187	149	121	749	753	788	813	54	60	63	66
40—60 ...	78	75	30	22	651	639	676	682	271	286	294	296
60 and over ...	96	97	30	14	315	311	312	316	589	592	658	670

SUBSIDIARY TABLE II.—*Distribution by Civil Condition of* 1,000 *of each Sex at certain ages for Buddhists, Animists and all Religions jointly in each Natural Division.*

Religion and Natural Division.	Males.																	
	All ages.			0—5.			5—10.			10—15.			15—40.			40 and over.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Province—																		
All Religions... ...	569	389	42	1,000	...	...	1,000	...	...	999	1	...	432	538	30	89	774	137
Buddhist	575	382	43	1,000	...	...	1,000	...	...	999	1	...	423	547	30	81	778	141
Animist	568	390	42	1,000	...	...	1,000	...	...	999	1	...	474	494	32	79	798	123
Central Basin—																		
All Religions... ...	566	392	42	1,000	...	...	1,000	...	...	999	1	...	410	563	27	85	775	140
Buddhist	568	390	42	1,000	...	...	1,000	...	...	999	1	...	405	571	24	82	777	141
Animist	541	413	46	1,000	...	...	1,000	...	...	1,000	...	...	415	551	34	88	771	141
Deltaic Plains—																		
All Religions... ...	581	382	37	1,000	...	...	1,000	...	...	998	2	...	455	522	23	113	754	133
Buddhist	595	368	37	1,000	...	...	1,000	...	...	1,000	...	...	442	535	23	94	766	140
Animist	611	345	44	1,000	...	...	1,000	...	...	997	3	...	602	371	27	229	638	133
Northern Hill Districts—																		
All Religions... ...	480	474	46	1,000	...	...	1,000	...	...	1,000	...	...	448	521	31	87	799	114
Buddhist	552	408	40	1,000	...	...	1,000	...	...	1,000	...	...	422	547	31	82	800	118
Animist	587	379	34	1,000	...	...	1,000	...	...	999	1	...	531	442	27	71	835	94
Coast Ranges—																		
All Religions	554	399	47	1,000	...	...	1,000	...	...	999	1	...	401	557	42	76	781	143
Buddhist	564	388	48	1,000	...	...	1,000	...	...	999	1	...	400	557	43	66	787	147
Animist	535	413	52	1,000	...	...	1,000	...	...	1,000	...	...	390	565	45	82	771	147
Specially Administered Territories—																		
All Religions	557	390	53	1,000	...	...	1,000	...	...	999	1	...	436	513	51	50	809	141
Buddhist	557	386	57	1,000	...	...	1,000	...	...	1,000	...	...	437	507	56	54	800	146
Animist	565	396	39	1,000	...	...	1,000	...	...	998	2	...	437	531	32	34	848	118

SUBSIDIARY TABLE II.—*Distribution by Civil Condition of* 1,000 *of each Sex at certain ages for Buddhists, Animists and all Religions jointly in each Natural Division.*

Religion and Natural Division.	Females.																	
	All ages.			0—5.			5—10.			10—15.			15—40.			40 and over.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Province—																		
All Religions... ...	519	376	105	1,000	...	...	1,000	...	...	993	7	...	297	641	62	76	554	370
Buddhist	521	373	106	1,000	...	...	1,000	...	...	995	5	...	303	635	62	77	557	366
Animist	496	383	121	1,000	...	...	1,000	...	...	991	9	...	306	627	67	54	516	430
Central Basin—																		
All Religions... ...	515	366	119	1,000	...	...	1,000	...	...	997	3	...	313	622	65	91	529	380
Buddhist	515	366	119	1,000	...	...	1,000	...	...	997	3	...	315	620	65	81	575	344
Animist	495	406	99	1,000	...	...	1,000	...	...	992	8	...	241	708	42	57	570	373
Deltaic Plains—																		
All Religions... ...	543	378	79	1,000	...	...	1,000	...	...	991	9	...	314	640	46	88	613	306
Buddhist	548	373	79	1,000	...	...	1,000	...	...	994	6	...	320	634	46	79	599	322
Animist	538	369	93	1,000	...	...	1,000	...	...	985	15	...	314	631	55	105	493	402
Northern Hill Districts—																		
All Religions... ...	413	462	125	1,000	...	...	1,000	...	...	995	5	...	267	677	56	75	546	379
Buddhist	497	403	100	1,000	...	...	1,000	...	...	995	5	...	251	698	51	75	574	351
Animist	495	359	146	1,000	...	...	1,000	...	...	995	5	...	342	583	75	59	416	525
Coast Ranges—																		
All Religions... ...	507	396	77	1,000	...	...	1,000	...	...	990	10	...	249	686	65	66	615	309
Buddhist	509	392	99	1,000	...	...	1,000	...	...	994	6	...	268	665	67	63	589	348
Animist	478	433	89	1,000	...	...	1,000	...	...	992	7	1	233	727	50	55	592	353
Specially Administered Territories—																		
All Religions	485	372	143	1,000	...	...	1,000	...	...	994	6	...	271	627	102	38	520	442
Buddhist	481	371	148	1,000	...	...	1,000	...	...	996	4	...	258	631	111	38	517	445
Animist	498	374	128	1,000	...	...	1,000	...	...	988	11	1	323	603	74	40	529	431

SUBSIDIARY TABLE III.—*Distribution by Main Age-periods and Civil Condition of 10,000 of each Sex and Religion.*

Religion and Age.	Males.			Females.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	2	3	4	5	6	7
All Religions ...	*5,688*	*3,894*	*418*	*5,186*	*3,764*	*1,050*
0—10 ...	9,999	1	...	9,999	1	...
10—15 ...	9,986	14	...	9,934	64	2
15—40 ...	4,322	5,381	297	2,970	6,410	620
40 and over ...	890	7,742	1,368	761	5,541	3,698
Buddhist ...	*5,762*	*3,822*	*426*	*5,212*	*3,734*	*1,054*
0—10 ...	10,000	...	...	10,000	...	...
10—15 ...	9,995	5	...	9,953	45	2
15—40 ...	4,226	5,472	302	3,025	6,351	624
40 and over ...	806	7,786	1,408	775	5,569	3,656
Animist ...	*5,682*	*3,904*	*414*	*4,962*	*3,827*	*1,21*
0—10 ...	10,000	...	...	10,000	...	...
10—15 ...	9,990	9	1	9,908	86	6
15—40 ...	4,737	4,938	325	3,058	6,267	675
40 and over ...	794	7,975	1,231	541	5,157	4,302
Hindu ...	*4,834*	*4,805*	*361*	*3,961*	*5,249*	*790*
0—10 ...	9,970	30	...	9,920	79	1
10—15 ...	9,633	362	5	8,479	1,510	11
15—40 ...	4,672	5,077	251	1,073	8,497	430
40 and over ...	2,318	6,677	1,005	732	5,359	3,909
Mahomedan ...	*5,281*	*4,339*	*380*	*5,105*	*3,968*	*927*
0—10 ...	9,994	5	1	9,995	4	1
10—15 ...	9,944	56	...	9,711	287	2
15—40 ...	4,319	5,370	311	1,813	7,558	629
40 and over ...	1,297	7,552	1,151	634	5,128	4,238
Christian ...	*6,126*	*3,541*	*333*	*5,540*	*3,658*	*802*
0—10 ...	9,995	5	...	9,997	3	...
10—15 ...	9,995	5	...	9,963	36	1
15—40 ...	5,289	4,499	212	3,451	6,126	423
40 and over ...	805	7,936	1,259	828	5,691	3,481

SUBSIDIARY TABLE IV.—*Proportion of the Sexes by Civil Condition at certain ages for Buddhists, Animists and all Religions jointly by Natural Divisions.*

Natural Division and Religion.	Number of Females per 1,000 Males.														
	All ages.			0—10.			10—15.			15—40.			40 and over.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Province—															
All Religions ...	874	927	2,410	1,024	2,115	1,500	923	4,506	7,300	634	1,100	1,920	827	692	2,614
Buddhist ...	934	1,007	2,552	1,033	...	...	946	8,442	10,083	752	1,220	2,170	997	742	2,695
Animist ...	781	876	2,619	935	...	...	857	8,000	7,500	522	1,135	1,852	587	558	3,017
Central Basin—															
All Religions ...	975	1,004	3,018	1,046	2,250	...	981	3,353	4,500	814	1,178	2,606	1,253	793	3,146
Buddhist ...	997	1,032	3,116	1,047	...	...	986	4,038	13,000	874	1,220	2,951	1,310	972	3,210
Animist ...	785	845	1,856	991	...	...	926	...	...	460	1,019	1,214	519	600	2,150
Deltaic Plains—															
All Religions ...	815	305	1,897	1,004	2,218	1,500	886	3,596	26,500	556	984	1,622	577	651	1,839
Buddhist ...	1,024	711	2,095	1,033	...	...	918	15,146	...	731	1,200	1,998	781	725	1,126
Animist ...	354	429	52	705	...	...	893	382	...	170	554	668	144	242	955
Northern Hill Districts.															
All Religions ...	808	914	2,582	1,033	...	...	980	19,667	...	524	1,141	1,596	804	632	3,086
Buddhist ...	883	970	2,442	1,049	...	...	998	58,500	...	563	1,210	1,548	870	686	2,851
Animist ...	815	916	4,713	971	...	...	1,043	...	...	617	1,260	2,650	952	507	516
Coast Ranges—															
All Religions ...	1,225	1,127	543	1,040	...	...	868	9,718	4,000	531	1,056	1,342	695	634	1,712
Buddhist ...	884	992	2,027	998	...	...	928	6,373	4,400	667	1,191	1,576	919	721	2,216
Animist ...	785	919	1,508	961	...	...	806	...	...	548	1,162	1,014	490	573	1,797
Specially Administered Territories.															
All Religions ...	874	952	2,710	997	...	...	912	11,211	8,500	659	1,295	2,136	735	621	2,035
Buddhist ...	874	971	2,629	1,011	...	...	920	18,077	...	633	1,332	2,115	680	622	2,926
Animist ...	901	964	3,357	946	...	...	885	6,773	6,000	811	1,262	2,568	1,234	637	3,727

SUBSIDIARY TABLE V.—*Distribution by Civil Condition of 1,000 of each Sex and certain ages for selected races.*

Race.	Distribution of 1,000 males of each age by Civil Condition.																	
	All ages.			0—5.			5—12.			12—20.			20—40.			40 and over.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Arakanese ..	499	397	104	1,000	...	...	1,000	..	...	703	263	34	194	644	162	84	688	228
Chin ...	561	395	44	1,000	..	...	1,000	...	..	956	41	3	255	695	50	57	813	130
Chinese ...	583	372	45	1,000	..	...	1,000	...	...	874	115	11	521	447	32	247	630	123
Danu ...	557	360	83	1,000	...	...	1,000	...	.	882	105	13	287	601	112	102	699	199
Karen ...	590	368	42	1,000	...	...	1,000	..	..	961	37	2	301	663	36	71	781	148
Kachin ...	570	389	41	1,000	...	...	1,000	...	...	860	136	4	385	565	50	132	766	102
Shan ..	533	392	75	1,000	..	..	1,000	...	...	830	121	49	263	649	88	105	729	166
Talaing ...	607	360	33	1,000	...	...	1,000	..	...	972	27	1	268	700	32	71	801	128
Taungthu ...	575	364	61	1,000	...	...	1,000	...	...	863	113	24	236	682	82	67	768	165
Wa-Palaung ...	555	377	68	1,000	...	...	1,000	...	...	777	208	15	310	592	98	232	628	140

SUBSIDIARY TABLE V.—*Distribution by Civil Condition of 1,000 of each Sex and certain ages for selected races.*

Race	Distribution of 1,000 females of each age by Civil Condition.																	
	All ages.			0—5.			5—12.			12—20.			20—40.			40 and over.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Arakanese ...	468	399	133	1,000	...	...	1,000	...	...	735	236	29	115	747	138	87	534	379
Chin ...	495	404	101	1,000	...	...	1,000	...	...	794	198	8	149	786	65	54	565	381
Chinese ...	501	400	99	1,000	...	...	998	2	...	802	191	7	178	753	69	129	532	339
Danu ...	527	384	89	1,000	...	...	1,000	...	...	836	155	9	166	753	81	68	646	286
Karen ...	560	362	78	1,000	...	...	996	4	...	870	123	7	200	743	57	82	592	326
Kachin ...	498	373	129	1,000	...	...	1,000	...	...	677	312	11	339	567	104	112	497	391
Shan ...	455	408	137	1,000	...	...	1,000	...	...	713	241	46	125	736	139	104	564	332
Talaing ...	577	362	61	1,000	...	...	998	2	...	883	113	4	162	790	48	67	657	276
Taungthu ...	538	359	103	1,000	...	...	999	1	...	749	231	20	185	712	103	66	574	360
Wa-Palaung ...	490	404	106	1,000	..	...	1,000	..	...	781	189	30	168	750	82	136	565	299

CHAPTER VIII.

Education.

151. Statistics of Literacy and Meaning of the Term.—The information connected with respect to the literacy of the population has been embodied in Imperial Tables VIII and IX. In the former the literate have been distributed by age and by religion, and in the latter according to race. These details have been supplemented by a series of Subsidiary Tables as follows :—

Subsidiary Table I.—Education by age, sex and religion.
Subsidiary Table II.—Education by age, sex and locality.
Subsidiary Table III.—Education by religion, sex and locality.
Subsidiary Table IV.—English Education by age, sex and locality.
Subsidiary Table V.—Progress of education since 1881.
Subsidiary Table VI.—Education by race.
Subsidiary Table VII.—Number of institutions and pupils according to the returns of the Education Department.
Subsidiary Table VIII.—Main results of university examinations.
Subsidiary Table IX.—Number and circulation of newspapers, etc.
Subsidiary Table X.—Number of books published in each language.

The records of literacy for the current census have been simplified by the omission to record the language in which each person is literate. The number of cases in which literacy extended beyond the mother tongue of the person recorded was so small, that the record was not worth the additional trouble entailed by its preparation, or the risk of confusion caused by the additional record involved. The rule for the determination of literacy has been made more definite. In 1901 it was to the effect that all persons of whatever age, who could both read and write any language, were to be classed as literate. At the present census, greater precision was given to the line of demarcation between literacy and illiteracy by the instruction that a person should not be entered as literate unless he was able to write a letter to a friend and read the answer to it. It was felt to be necessary definitely to exclude two classes from the population recorded as literate :—

(i) persons unable to write but able to read in a more or less perfunctory manner ;
(ii) persons whose ability to write is limited to the signature of their own name with difficulty.

The test of literacy was therefore both more definite and more stringent than in 1901.

152. Standard of Literacy.—The question of the comparison of literacy in 1901 and 1911 is inevitably associated with the standard of literacy adopted at the two enumerations. In paragraph 288 of the Census Report for India for 1901, it is stated that the standard of education in Burma is very low, and that it is probable that if any test were applied higher than that imposed by the census, the influence of the monastic schools on the statistics would disappear, and Burma would hold a far lower position in comparison with other provinces than that which it occupied on the basis of the statistics for 1901. This opinion has been justified by the statistics for the current census. The more rigorous application of the test of ability to read and write has produced a reduction in the proportions of literate persons precisely where the monastic schools are most numerous, the Central Basin, the Northern Hill Districts and the Coast Ranges ; but has failed to modify the statistics showing the progress of literacy where it is less dependent on monastic teaching, in the districts of the Deltaic Plains, and amongst the women of the province generally. Thus a reference to Subsidiary Table V will show that the districts of Minbu, Magwe, Mandalay, Shwebo and the Upper Chindwin, which in 1901 returned more than a half of their masculine population as being literate, all fall short of that standard in the statistics of the current census. The only districts which now possess a literate population exceeding 50 per cent. are Tharrawaddy, Henzada and Pyapôn, delta districts where the influence of the monastery schools is not so pronounced as in the districts of Upper Burma. A comparison of the general results for the two most important natural divisions of the province, the Central Basin and the Deltaic Plains is even more instructive than one for individual districts. The proportions appear to have changed

Male literates per 1,000.		
	1911.	1901.
Central Basin ...	433	456
Deltaic Plains ...	454	433

places. In 1901, the proportion of male literacy in the Central Basin exceeded that in the Deltaic Plains to an extent represented by the figures 456 and 433 per thousand. In 1911, the proportion of male literates in the Central Basin had fallen to 433 while that in the Deltaic Plains has risen to 454, nearly reversing the positions. The conclusion to be drawn from these contrary variations, is not that there has been a backward movement in education in the former area, but that it contained a large class of persons on the margin of literacy who were included as literates in the census of 1901, and excluded by the more rigorous test of 1911.

153. Comparison of Literacy in 1901 and 1911.—The effect of the more rigorous application of the test for literacy has been to reduce the numbers of literate males in the province from 378 to 376 per thousand. Its operation has been curiously uneven in different parts of the province, and among males and females. In the districts of the Deltaic Plains the progress of education amongst males has been more than sufficient to counteract the increased stringency of the test, the number of literates increasing from 433 to 454 per thousand. In the Central Basin, the Northern Hill Districts and the Coast Ranges the more stringent test has served to produce a reduction in the proportion of masculine literacy. Changes in area in the Specially Administered Territories disguise the real rate of progress, though the figures indicate a genuine advance. Among females the progress made has been more than sufficient to overcome the greater stringency of the test applied, in all the natural divisions except the Coast Ranges, where the proportions are identical for 1901 and 1911. The general resultant for the province is a slight retrogression in the proportion of male literates from 378 to 376 per thousand, while female literacy has increased in a marked manner from 45 to 61 per thousand. Combining both sexes the progress is represented by an increase from 215 per thousand in 1901 to 221 per thousand in 1911.

Literates per thousand, 1901—1911.

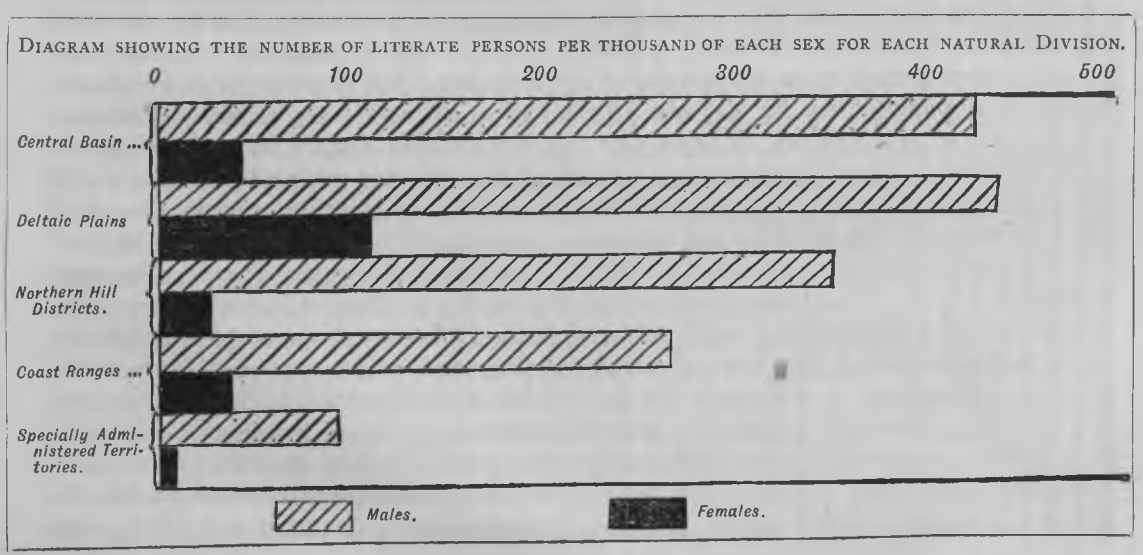
Natural Division.	Males.		Females.	
	1911.	1901.	1911.	1901.
Province	376	378	61	45
Central Basin	433	456	44	30
Deltaic Plains	454	433	111	80
Northern Hill Districts	356	379	26	21
Coast Ranges	270	285	39	39
Specially Administered Territories.	94	72	6	3

Although there has been but a slight advance generally, and in some respects a set back in the proportions of literacy, the actual figures have shown considerable progress, there being 446,916 more persons literate in 1911 than in 1901. The increase in the number of male literates, although proportionately less, is absolutely much greater than the increase in the number of female literates. The increase in the number of literate persons in the province from 2,223,962 to 2,670,878 though it has not quite kept pace with the general increase of population, is satisfactory in view of the higher standard adopted at the later enumeration.

Number of persons literate, 1901-1911.

Year.	Persons.	Males.	Females.
1911 ...	2,670,878	2,312,883	357,995
1901 ...	2,223,962	1,997,074	226,888
Increase ...	446,916	315,809	131,107

154. Literacy by Natural Divisions.—The principal cause influencing the



degree of literacy of any portion of the province is the extent to which Buddhism is accepted by the population. Other causes, such as the spread of Christianity, and the number of state-aided schools, influence the general proportions in a minor manner. Thus the high proportions of literacy in the districts of the Central Basin and the Deltaic Plains as compared with the remaining three natural divisions of the province are due primarily to their higher proportions of Buddhist population. But minor variations, such as the greater literacy of the deltaic region as compared with the Central Basin, and the proportions of female literacy, are due to other causes. The districts of the Deltaic Plains have greater local funds available for the support and encouragement of education, and consequently are far better supplied with primary and secondary schools under the supervision of the Education Department. They have therefore been able to show an advance in the proportion of literacy despite the more stringent test applied, while the districts of the Central Basin, with smaller funds available and dependent to a far greater extent on monastic schools which do not attain even the low standard of a primary school, failed to maintain the previous proportion It is in female literacy that the different nature of the education in the two areas is most apparent. There are 11·1 per cent. of females literate in the deltaic districts against 4·4 per cent. in the districts of the Central Basin. The inclusion of Rangoon in the former area undoubtedly affects the proportions, but even if Rangoon be excluded, there are five districts of the Deltaic Plains, Hanthawaddy, Pegu, Bassein, Ma-ubin and Pyapôn with a proportion of female literates of 10 per cent. or more, whereas there is no district in the Central Basin which attains this standard. The large animistic population in the Myitkyina, Bhamo and Ruby Mines districts is the cause of the low proportion of literacy in the Northern Hill Districts. Similarly the two districts of Salween and Northern Arakan reduce the literacy of the Coast Ranges, though the remaining districts of this division do not attain the high standard of the more central districts of the province.

Literacy per thousand.

—	Total.	Males.	Females.
Province	**221**	376	61
Central Basin	231	433	44
Deltaic Plains	294	454	114
Northern Hill Districts	197	356	246
Coast Ranges	161	270	39
Specially Administered Territories.	50	94	6

155. Education in Cities.—It is a general rule that the inhabitants of large towns are far better educated than those of rural areas. The reasons for this are obvious. The concentration of population and wealth in towns leads to the provision of educational facilities suited to all classes of the inhabitants, on a scale that is not possible to the sparsely inhabited rural districts. In addition to being homes of trade and industry, cities and large towns tend to be the centres of science and art and of advanced and higher education, attracting students from the remaining portions of the country. Moreover the organisation of trade and industry requires a much higher standard of education than the more primitive organisation of agriculture. As success in town life is peculiarly dependent on the degree of education attained, an urban population is much more alive to its advantages and necessities than the population of rural districts. Other circumstances leading to a higher standard of literacy in cities are the presence of large governmental and administrative organisations and the preference of the wealthy and leisured classes for the amenities of city life.

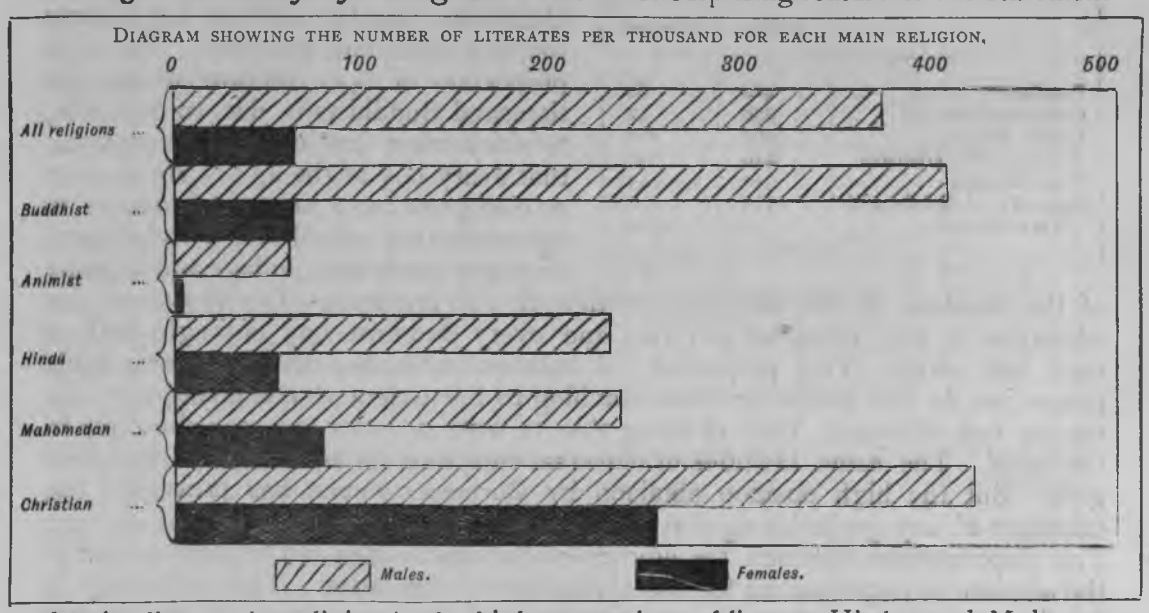
Literates per thousand in cities.

	Total.	Males.	Females.
Rangoon	416	439	359
Mandalay	392	599	181
Two cities combined ...	408	479	280

The proportion of masculine literacy in the city of Rangoon, 439 per thousand is exceeded in no less than fourteen of the outlying districts of the province. Compared with Mandalay it occupies an extremely low position, the latter having the high proportion of 599 literate males per thousand. It is the peculiar circumstances of Rangoon, containing a large population of illiterate Indian immigrants which tend to reduce its standard of masculine literacy. If the comparison is taken over definite sections of its population, its true position can be better appreciated. Thus the proportion of literacy among the Buddhist male population of the city is 708 per thousand against a corresponding proportion of 412 per thousand for the

Buddhist male population of the province. Similarly the Animist and Christian communities of the city of Rangoon show proportions of masculine literacy of 498 and 800 per thousand against corresponding proportions of 59 and 421 per thousand respectively for the province as a whole. The remarkable difference in the constitution of the populations of the cities of Rangoon and Mandalay is reflected in their statistics for literacy. With general proportions not greatly differing, being 416 and 392 per thousand for Rangoon and Mandalay respectively, an analysis by sex reveals marked differences. It has been seen that the large number of illiterate immigrants reduces the proportion of literacy among the males for the city of Rangoon. There is no such large number of illiterate immigrant females. With a disproportionately small female population, and excellent facilities for female education the proportion of feminine literacy in Rangoon is exceedingly high. The Christian and Buddhist communities, with 632 and 382 literate females per thousand respectively, are the principal contributories to the resulting high proportion.

156. Literacy by Religion.—The most surprising feature of the statement



showing literacy by religion is the high proportions of literate Hindus and Mahomedans. Whereas Hindus in India have a proportion of fifty literates per thousand, in Burma the proportion rises to 195 per thousand. For Mahomedans the general proportion of literacy in India is only 33 per thousand, but for the Mahomedan community in Burma it amounts to 178 per thousand.

Literacy per thousand by religions.

Religion.	Literate.			Literate in English.		
	Total.	Males.	Females.	Total.	Males.	Females.
All religions ...	221	376	61	6	9	2
Buddhist ...	233	412	60	2	4	...
Animist ...	32	59	2	1	1	..
Hindu ...	195	230	53	24	28	5
Mahomedan ...	178	234	77	15	11	5
Christian ...	341	421	251	142	187	94

One reason of the high proportion of literacy among the Hindus is the fact that they include large numbers of immigrants from Madras, the province which stands next to Burma in the order of literacy in India. Another cause influencing the degree of literacy among both the Hindu and Mahomedan populations is the extent to which they are congregated in urban communities. The great majority of the immigrants from India are recruited to perform urban occupations, many of which are only open to literate persons. Educational facilities are also much more plentiful in towns than in rural areas, and the children of such immigrants have much larger chances of being educated, than would have fallen to their lot in their homes in India. Moreover, Burma is a land of promise to the Indian immigrant. He sees openings for his children in Burma which would not be available in his native country. There is therefore a much greater incentive to the education of Indian children than is to be found in India. The influence of the very wide spread of primary education among the Burmese also influences those races with whom they are brought into contact. Perhaps even more striking than the high proportions of

general literacy among the Hindu and Mahomedan populations, is the marked contrast between the literacy of the female members of these religions in India and in Burma. In India, the proportions of literate females are 5 and 3 per thousand for Hindus and Mahomedans respectively. In Burma they are 53 and 77 per thousand, in the latter case rising above the proportions of literate Buddhist females. The populations for which these proportions are calculated are small, and proportions calculated over populations widely divergent in numbers are apt to be misleading, but they may be taken as proving that the special circumstances under which the Indian population lives in Burma stimulates a high rate of progress, the principal manifestation of which is a high proportion of literacy.

It is the Buddhist community which sets the standard and which governs the proportions of literacy for the province. Whatever may be the respective proportions for the remaining religions, they are calculated on such small absolute numbers as compared with the Buddhists, that they affect but slightly the figures for the province. The high proportion of 412 literate males per thousand Buddhists is due to the rule, to which there are but few exceptions, that every boy at the age of about eight or nine goes as a matter of course to the monastery school that is to be found in nearly every main village and in many of the hamlets of the Buddhist portion of the province. The provision for education is both universal and free, and every Buddhist boy is taught both to read and write. The proportion of literates indicates that a considerable proportion do not profit by their teaching to the extent of complying with the census test of literacy, that of being able to write a letter and read the reply to the same. The same facilities of universal education do not exist for Buddhist girls. But the high position obtained by Burmese women has prevented the existence of any prejudice against female education merely on account of sex. The disproportion between the literacy of Buddhist males and females is due to the absence of opportunities for the education of the latter. The deficiency is supplied to a certain extent by lay schools and the proportion of 60 literate Buddhist females per thousand contrasts decisively with a proportion of 7 per thousand for the literacy of the female population of India as a whole.

Buddhist literates per 1,000.

	Males.	Females.
Province	**412**	**60**
Central Basin	438	42
Deltaic Plains	495	106
Northern Hill Districts	430	30
Coast Ranges	330	43
Specially Administered Territories.	113	7

As was to be expected, the Christian community affords the highest proportion of literacy. It includes the European and Anglo-Indian races, every adolescent and adult member of which is literate. But even among native Christians, the close attention given by the religious leaders of all denominations to the importance of education leads to a high standard of literacy. It is among females that the difference from other religions in this respect is most marked. The proportion of male Christian literates is but slightly higher than that for Buddhist males, the figures being 421 and 412 per thousand respectively. But the proportion of female Christian literates, exceeding 25 per cent. of the total number, is decidedly above the corresponding proportion for Buddhists, there being only 6 per cent. of the total number of Buddhist females who are literate.

Christian literates per 1,000.

	Males.	Females.
Province	**421**	**251**
Central Basin	627	396
Deltaic Plains	469	253
Northern Hill Districts	407	138
Coast Ranges	327	278
Specially Administered Territories.	92	23

Education of Christians (Actual figures).

Class of Christians.	Total population.		Literate.	
	Males.	Females.	Males.	Females.
Europeans and Allied Races and Anglo-Indians.	16,053	8,486	15,821	7,311
Native Christians ..	94,980	90,562	30,868	17,696

As the Christian community comprises two distinct classes, Europeans and Anglo-Indians on the one hand and native Christians on the other, with greatly varying standards of literacy it is necessary to separate the figures for the two, and calculate their proportions

separately. Practically the whole of the first class are literate, the slight margin representing infants and children who have not attained the age at which ability to read and write is possible. The proportions for native Christians are 325 and 195 per thousand for males and females respectively. This represents a somewhat lower standard for males than is to be found among Buddhists, but the proportion of female literates among the native Christians is far higher than among the Buddhist community.

Education of Christians (Proportional figures).

Class of Christians.	Literate per 1,000.	
	Males.	Females.
Europeans and Allied Races and Anglo-Indians.	986	862
Native Christians ...	325	195

The proportion of literacy among the members of Animist tribes and races is enhanced by the inclusion of the Chinese population. The extremely low proportions of 59 per thousand for males and 2 per thousand for females would almost vanish if the Chinese were excluded. The indigenous Animists may be entered as being entirely illiterate. As members of animist tribes or races become educated, they are absorbed either into the Buddhist or the Christian communities. Their only avenues to literacy are through the Buddhistic monastic schools or the various forms of Christian missionary enterprise. The indigenous Animists therefore comprise those numbers of the hill tribes of the province who have not come under the influence of any systematic educational influences.

Animist literates per 1,000.

	Males.	Females.
Province	59	2
Central Basin	147	9
Deltaic Plains	285	26
Northern Hill Districts	20	2
Coast Ranges	40	2
Specially Administered Territories.	3	...

157. Education by Race.—No statistics were compiled to show the standard of literacy of the Burmese race. Its proportions would, however, coincide closely with those of the Buddhist population; *i.e.*, 412 per thousand for males, 60 per thousand for females, and a resultant of 233 per thousand for the two sexes combined. The Chinese are the most literate of the remaining races. Next in order come three Buddhist races, the Talaings, Arakanese and Danus. Then follow the Karens and the Shans. But for the spread of Christianity the Karens, a race of animistic antecedents, would occupy a much lower place in the scale of literacy. It is the provision of educational facilities accompanying Christian missionary effort which has induced the comparatively high proportion of literacy among them. The high proportion is specially noticeable among females. It is slightly higher at 62 per thousand than the proportion of Buddhist female literacy, or than the female literacy for the whole province, at 60 and 61 per thousand respectively. The proportions among the Chins, Was, Palaungs and Kachins are naturally extremely low. It is indeed doubtful if they attain the figures recorded, it being highly probable that a lower standard of literacy was assumed among the primitive tribes and races than among those which are more advanced.

Education by Race.

—	Literate per 1,000.		
	Total.	Males.	Females.
Chinese ...	271	321	111
Talaing ...	221	366	78
Arakanese ...	169	309	19
Danu ...	133	230	36
Karen ...	126	191	62
Shan ...	101	181	22
Taungthu ...	58	90	25
Chin ...	28	54	4
Wa-Palaung ...	28	43	14
Kachin ...	9	12	6

158. Education in English.—Details of the proportions of literacy in English are to be found in Subsidiary Table IV of this Chapter. Considerable progress has been made since 1901, the proportion of literacy in English for males rising from 61 to 91 per ten thousand, and that for females from 13 to 20 per ten thousand. The Deltaic Plains with the large urban centres of Rangoon and Bassein, and the Coast Ranges with the ports of Moulmein, Akyab, Tavoy and Mergui, naturally provide the highest proportions of persons educated in English. The large European and Anglo-Indian populations in these towns increase the proportions both directly and indirectly. It is not only their actual numbers,

but also the large English speaking population necessary for their business and domestic requirements, which influence the statistics. Rangoon itself supplies nearly half the English-speaking population of the province, its proportions being 1,212 and 736 per ten thousand of its population for males and females respectively. Mandalay District, containing Mandalay City and the administrative centre of Maymyo, each with a large European and Anglo-Indian population, is the second district in the province with 2·49 per cent. of its male population and ·68 per cent. of its female population able to speak and write English. Amherst District containing the port of Moulmein is the only other district with as many as one per cent. of its masculine population speaking English.

Education in English.

Natural Division.	Literates per 1,000.			
	Males.		Females.	
	1911.	1901.	1911.	1901.
Province	91	61	20	13
Central Basin	56	35	9	5
Deltaic Plains	160	104	42	24
Northern Hill Districts...	45	28	5	4
Coast Ranges ...	71	59	18	16
Specially Administered Territories.	9	6	1	...

Literate in English.

	Persons.	Males.	Females.
Rangoon	31,509	25,233	6,276
Rest of Province ...	36,328	30,570	5,758
Total ...	67,837	55,803	12,034

159. English Education by Religions.—It is natural that small and select communities like the Jews and the Zoroastrians should show the high standard of literacy in English indicated by the figures in columns 13, 14 and 15 in Subsidiary Table I. It is also natural that the comparatively small communities, like the Hindus and Mahomedans, specialising largely in urban industries, should show much higher proportions of literacy in English than the indigenous Buddhist and Animist populations. It is the proportions of English literacy among the Christian population which needs closer analysis. It is partly composed of members of races for whom English is the mother tongue, and partly of native Christians with whom English is an acquired language. It is necessary that the proportions of 1,841 and 932 per ten thousand for Christian males and females, respectively, should be resolved into constituent proportions for each of the two main branches of the Christian community. It is seen, as was to be expected, that practically the whole of the Europeans and members of allied races and Anglo-Indians are literate in English, there being a slight margin for infants, and for non-English-speaking Europeans. Among native Christians the number of English speakers form 5·36 and 2·27 per cent. of the total numbers of males and females, respectively, a much higher standard of knowledge of English than is to be found among the Buddhist, Hindu or Mahomedan communities.

Number per 1,000 literate in English.

	Total.	Males.	Females
Buddhist ...	20	39	2
Animist ...	8	13	1
Hindu ...	238	283	52
Mahomedan ...	141	192	48
Christian ...	1,429	1,865	940

English education of Christians (Actual figures).

Class of Christians.	Total populations.		Literate in English.	
	Males.	Females	Males.	Females.
Europeans and allied races and Anglo-Indians.	16,053	8,486	15,634	7,250
Native Christians ...	94,980	90,562	5,073	2,057

English education of Christians (Proportional figures).

Class of Christians.	English literates per 10,000	
	Males.	Females.
Europeans and allied races and Anglo-Indians.	9,739	8,543
Native Christians ...	536	227

160. Educational Institutions.—Subsidiary Table VII gives statistics for the number of educational institutions in the province for the years 1891, 1901 and 1911. They indicate that in education, as in most other branches of administrative and national life, Burma is in a period of transition. Thus, while there has been a marked advance in the provision of technical and secondary schools, the number of primary schools is much less than in 1891. The decrease between

1891 and 1901 has been checked, and the ground then lost has been partly recovered. But the following extract from the Report on Public Instruction in Burma for the year 1901-11, demonstrates that even yet the primary education of the province has not been placed on a thoroughly satisfactory and progressive footing :—

"Under public primary institutions for boys there has been a marked decrease of 268 schools and 6,030 pupils. This decline is not shared by European schools ; in Anglo-Vernacular Primary schools 182 pupils only have been lost, of whom 59, however, have merely passed over to the Secondary list with the rise of their schools to middle grade. Hence almost the entire decrease falls upon Vernacular schools. The Pegu, Magwe, Meiktila and Irrawaddy Divisions and the Southern Shan States all show losses of both schools and pupils, the first two having suffered the most severely. In the Eastern Circle on the other hand there has been a slight gain of pupils, so too in the Northern Circle. The Chin Hills and Mandalay show increases of both scholars and schools, the Northern Shan States a small gain of scholars, Arakan and Tenasserim losses of schools but gains in respect of pupils, Sagaing a gain of schools but decrease of scholars. The falling off, moreover, is not general, being confined to Primary schools proper. In Secondary Vernacular schools, both the Upper Primary and Lower Primary standards show increases and even in Primary schools the loss in the Upper Primary standards is slight. It is elementary vernacular education therefore that has been affected."

The decline is attributed partly to the application of the full vernacular curriculum in aided schools, though the principal cause is the reduction of grants due to financial stringency. The full curriculum could have been introduced with relatively little difficulty and without a backward movement, if it had not coincided with a reduction of financial aid.

Private institutions have increased from 5,044 in 1891 to 13,118 in 1901 and 16,499 in 1911. These figures however cannot be relied on as the Education Department has no adequate means of either collecting or verifying them. It may be assumed that roughly there are between 16,000 and 17,000 such institutions in the Province, that of these nearly 16,000 are kept by Buddhists and that of the private Buddhist schools the very large majority, *i.e.*, over 15,900 schools, belong to the monastic order. Of the estimated total in attendance at private schools nearly 165,000 pupils or 96 per cent. are Buddhists. It is to such private institutions that the supremacy of Burma in the matter of literacy is due. The marginal statement indicates that over one-third of the number of private educational institutions in India and over one-fourth of their students, are to be found in Burma. It must be remembered that the education given is very elementary, lower than that given in the primary schools, and if a much higher standard than the ability to read and write a letter were adopted, large numbers of persons now entered as literates would be excluded.

Class of Institution.	Number of institutions.		Number of Scholars.	
	India, 1901.	Burma, 1911.	India, 1901.	Burma, 1911.
Arts Colleges ...	141	2	16,703	278
Secondary Schools ...	5461	876	586,628	78,283
Primary Schools ...	98,133	5,448	3,157,724	177,668
School for special instruction.	964	236	32,924	2,932
Private institutions ...	42,343	16,499	605,212	170,831

161. Distribution of Educational Facilities.—Excluding the Specially Administered Territories there are in Burma 18640 village-tracts or administrative village jurisdictions. The number of primary schools in the Specially Administered Territories is small, and the number of recorded private schools from these areas would not be great. There is on an average approximately one primary school for each 3 or 4 village-tracts, but in the greater portion of the province, even this slight provision of a most elementary standard of instruction is not to be found, the primary schools being concentrated to a greater degree in the wealthy deltaic districts of the province. The distribution of the private schools amounts to not quite one per village-tract. The Education Department issues a warning that the figures are only approximate, and it is obvious from the figures given in Subsidiary Table VII for 1891 and 1901 that the returns for those years are not complete. It is probable that even yet complete records have not

Numbers of Schools and Village-tracts.	
Village-Tracts ...	18,640
Primary Schools ...	5,448
Private Schools ...	16,499

been obtained, and it is legitimate to presume a provision of approximately one private school per village-tract for the province. Thus, for an extremely low standard of education, measured of course from a purely secular standpoint, there is a generous provision within the reach of every boy in the province.

162. Educational Expenditure.—The total expenditure on education in the province of Burma for the year 1910-11 was Rs. 43,62,581. But the amount with which the census figures are concerned, that influencing the amount of simple literacy without regard to its quality, is that portion spent on primary education. Despite financial stringency, which is officially declared to have been the chief cause in the decline in the number of primary schools for the year as compared with the previous year, it is seen that the amount spent on primary education has increased by Rs. 2,15,536 since 1901. It now amounts to Rs. 42 per thousand of the total population, or Rs. 2,885 per thousand pupils, against the corresponding figures of Rs. 28 and Rs. 2,283 at the time of the previous census. It may seem a discouraging result for this increased expenditure that the proportion of male literacy recorded should have fallen from 378 to 376 per thousand, and that the total recorded literacy should have increased by so slight a proportion, from 215 to 221 per thousand only. The standards of literacy adopted at the enumerations of 1901 and 1911 have however differed so widely that comparisons are impossible. The reduction in the numbers of literates occurred among persons educated at monastic schools which had not attained a sufficiently high standard to be treated as primary schools. It has been seen that female literacy which is largely the resultant of primary schools, and literacy in the districts of the Deltaic Plains where primary schools are abundant, have increased despite the more stringent tests applied at the census of 1911.

Expenditure on Primary Education (Provincial and Local Funds).

Year.	Actual.	Per 1,000.	
		Population.	Pupils.
	Rs.	Rs.	Rs.
1911 ...	506,988	42	2,855
1901 ...	291,452	28	2,283

163. Comparison of Census Returns with Scholars in Educational Institutions.—There should be some correspondence between the number of scholars in the educational institutions of the country and the numbers returned as literate in the census records between the ages of 10 and 20. The degree of correspondence is not close. It is not till some time after passing the age of 10 that the majority of children can be truly classed as literate. On the other hand, but a small portion of scholars remain in educational institutions till the age of 20. The figures given in the margin show a difference of 147,639. There are so many possible reasons to account for this difference that any attempt to estimate them or even to place them in their order of magnitude would be impossible.

Literates between ages 10 and 20.

Age.	Census returns.	Scholars (from education returns).
10—15	253,133	...
15—20	324,498	...
10—20	577,631	429,992

164. Books and Newspapers as Tests of Education.—Subsidiary Table IX gives the number and circulation of newspapers and periodicals in the province at the three periods 1890, 1900 and 1910. Subsidiary Table X gives the numbers of books published in the various languages in each year of the past decade, and the totals for the past three decades. It is doubtful if the vernacular newspapers reach a sufficient number of the population to enable any conclusions as to the spread of education to be drawn with any degree of confidence. Their total circulations are insignificant in number, and even though they show increases on the circulations at the time of previous census enumerations, this is due to increased energy of supply rather than to increased strength of demand. They are not sufficiently in touch with the life of the people to be read for their own sake. They are largely propaganda publications supplying what the publishers choose to give, rather than what the public wants. Indeed it is doubtful if the Burmese public wants anything in the nature of periodical literature. Interests are too narrow and too local to support publications of provincial circulation, and

the support given to local papers would be too small to pay their cost. Nor do the numbers of books published throw any light on the general spread of education. The standard of education is so low that the task of reading through a book of but moderate dimensions with a full comprehension of its contents could be performed by but a very small number of the persons classed as literate in the census records.

SUBSIDIARY TABLE I.—*Education by age, sex and religion.*

Religion.	Number per mille who are literate.											Number per mille who are literate in English.		
	All ages.			0—10.		10—15.		15—20.		20 and over.				
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
All Religions ...	221	376	61	28	11	286	74	479	109	544	75	6	9	2
Buddhist ...	233	412	60	28	11	303	72	531	108	619	74	2	4	...
Animist ...	32	59	3	2	...	25	4	45	5	92	4	1	1	...
Hindu ...	195	230	53	40	...	194	77	207	106	251	60	24	28	5
Mahomedan ...	178	234	77	24	11	161	84	260	119	299	112	14	19	5
Christian ...	341	421	252	76	72	398	325	511	401	161	302	143	187	94
Sikh	448	502	196	46	63	536	382	415	457	551	220	31	32	28
Jain	418	450	253	214	105	875	...	733	231	426	326	103	115	38
Zoroastrian ...	736	759	695	276	182	944	733	667	1,000	849	831	603	636	543
Jew ...	635	726	525	293	278	763	742	844	667	853	596	479	531	417
Confucian ...	507	632	...	1,000	...	1,000	...	750	...	596	...	42	53	...

SUBSIDIARY TABLE II.—*Education by age, sex and locality.*

District and Natural Division.	Number per mille who are literate.										
	All ages.			1—10.		10—15.		15—20.		20 and over.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12
Province	221	376	61	28	11		74	479	109	544	75
Central Basin	*231*	*433*	*44*	*25*	*8*	*297*	*52*	*647*	*82*	*666*	*54*
Prome	274	493	62	23	14	348	86	638	113	739	70
Thayetmyo	256	477	42	24	7	330	46	579	75	725	54
Pakôkku	203	378	43	16	6	228	55	458	90	604	51
Minbu	237	451	32	16	4	259	34	578	52	693	43
Magwe	245	470	26	24	5	291	25	618	38	725	35
Mandalay	277	455	99	36	17	356	104	586	157	618	123
Shwebo	241	429	73	33	12	319	78	545	108	649	94
Sagaing ..	227	434	40	30	7	382	58	567	81	644	45
Lower Chindwin ...	172	362	19	15	4	221	24	450	35	586	23
Kyauksè	218	408	38	44	12	286	73	492	77	562	37
Meiktila	207	408	21	31	4	253	23	518	43	623	26
Yamèthin	225	419	32	24	6	277	36	516	57	640	40
Myingyan	222	432	31	25	6	300	35	533	55	678	38
Deltaic Plains	*294*	*464*	*111*	*43*	*20*	*377*	*181*	*682*	*196*	*628*	*141*
Rangoon	416	439	359	138	94	556	425	548	502	460	422
Hanthawaddy ...	336	493	145	56	25	450	185	618	269	651	178
Tharrawaddy ...	296	508	85	36	14	403	112	679	165	756	103
Pegu	315	483	122	49	22	430	149	637	218	662	152
Bassein	277	444	100	35	17	313	112	774	540	644	127
Henzada	305	517	97	41	19	373	116	675	167	783	120
Myaungmya	275	433	98	33	15	316	105	525	172	635	131
Ma-ubin	301	485	109	48	22	417	137	622	196	694	134
Pyapôn	361	554	129	52	19	479	138	698	250	756	169
Thatôn	168	270	57	23	10	235	71	375	102	398	74
Toungoo	221	369	62	29	13	288	75	467	111	538	77
Northern Hill Districts ...	*197*	*356*	*26*	*25*	*7*	*265*	*36*	*454*	*49*	*496*	*30*
Bhamo	109	191	22	9	7	110	25	189	42	277	24
Myitkyina	131	219	19	20	6	146	25	296	31	281	21
Katha	230	441	23	26	5	348	29	560	37	647	29
Ruby Mines ...	166	273	40	41	27	205	71	319	83	364	41
Upper Chindwin ...	265	496	29	35	7	359	37	674	58	707	34
Coast Ranges	*161*	*270*	*39*	*16*	*7*	*163*	*46*	*308*	*61*	*396*	*51*
Akyab	150	252	26	11	4	141	26	264	32	372	38
Northern Arakan ...	33	61	3	...	...	20	...	51	3	94	5
Kyaukpyu	154	292	24	15	4	148	23	304	32	452	33
Sandoway	194	347	40	15	6	209	48	413	69	548	51
Salween	27	46	5	1	...	49	9	44	4	69	7
Amherst	182	283	62	24	11	195	77	342	105	421	83
Tavoy	181	314	44	22	8	192	56	433	78	481	54
Mergui	186	298	57	17	10	169	62	333	95	456	76
Specially Administered Territories.	*60*	*94*	*6*	*4*	*2*	*85*	*6*	*189*	*9*	*184*	*7*
Northern Shan States	48	90	5	6	3	102	6	123	8	124	6
Southern Shan States	57	107	7	3	2	87	6	164	11	154	8
Pakôkku Hill Tracts	...	...	...	...	...	...	...	...	...	...	...
Chin Hills	6	11	...	...	...	5	...	8	...	19	..
Rangoon and Mandalay cities combined.	408	479	280	106	66	540	321	552	413	526	328

SUBSIDIARY TABLE III.—*Education by Religion, sex and locality.*

District and Natural Divisions.	Number per mille who are literate.					
	Buddhist.		Animist.		Christian.	
	Male.	Female.	Male.	Female.	Male.	Female.
1	2	3	4	5	6	7
Province	412	60	59	3	421	252
Central Basin	*438*	*42*	*147*	*9*	*627*	*396*
Prome	511	61	163	6	581	337
Thayetmyo	505	44	86	4	652	389
Pakôkku	379	43	126	12	479	291
Minbu	466	33	111	2	614	407
Magwe	473	25	133	9	623	385
Mandalay	460	88	514	320	778	536
Shwebo	430	71	220	74	668	283
Sagaing	435	39	139	12	474	265
Lower Chindwin	361	19	185	7	579	322
Kyauksè	412	36	223	29	614	355
Meiktila	411	20	174	6	487	293
Yamèthin	430	30	195	13	311	186
Myingyan	431	30	143	9	527	346
Deltaic Plains	*495*	*106*	*285*	*26*	*469*	*258*
Rangoon	708	382	498	112	800	632
Hanthawaddy	559	149	386	66	445	259
Tharrawaddy	521	83	347	46	503	268
Pegu	537	124	329	23	338	225
Bassein	470	91	325	103	377	224
Henzada	526	93	508	172	445	252
Myaungmya	457	93	393	84	321	190
Ma-ubin	504	107	342	114	390	181
Pyapôn	603	129	360	76	381	220
Thatôn	282	57	168	17	246	162
Toungoo	433	58	81	5	202	145
Northern Hill Districts	*430*	*80*	*20*	*2*	*407*	*138*
Bhamo	301	36	18	...	422	125
Myitkyina	407	38	17	1	610	330
Katha	456	23	16	...	527	193
Ruby Mines	314	44	39	14	383	117
Upper Chindwin	510	29	19	1	295	97
Coast Ranges	*336*	*48*	*40*	*2*	*327*	*278*
Akyab	391	40	24	...	295	112
Northern Arakan	386	26	5	...	333	129
Kyaukpyu	323	26	10	2	271	144
Sandoway	398	40	64	4	385	213
Salween	82	8	4	...	271	184
Amherst	292	55	327	82	442	437
Tavoy	320	41	87	3	325	149
Mergui	345	58	114	2	157	94
Specially Administered Territories.	*113*	7	*3*	...	*92*	*28*
Northern Shan States ...	101	6	6	...	...	...
Southern Shan States ...	12	7	3	...	92	23

SUBSIDIARY TABLE IV.—*English Education by age, sex and locality.*

District and Natural Division.	Literate in English per 10,000.											
	1911.										1901.	
	0—10.		10—15.		15—20.		20 and over.		All ages.		All ages.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13
Province	9	7	65	28	143	34	125	8	91	20	61	13
I. Central Basin ...	*7*	*6*	*32*	*13*	*77*	*14*	*83*	*10*	*56*	*9*	*35*	*5*
Prome	1	1	15	5	62	4	58	5	38	4	23	3
Thayetmyo ...	2	...	33	9	72	8	81	4	52	4	51	5
Pakôkku	1	...	20	1	40	3	27	3	19	2	11	1
Minbu	...	...	27	1	61	4	39	2	29	1	19	3
Magwe	...	...	8	...	20	3	54	4	31	2	13	1
Mandalay... ...	48	38	198	111	354	108	322	65	249	68	132	25
Shwebo	10	7	14	12	67	9	86	8	55	8	72	8
Sagaing	4	3	19	10	35	11	40	6	27	6	15	1
Lower Chindwin...	1	...	13	2	48	2	28	2	20	2	16	1
Kyauksè	7	2	30	10	9	11	44	6	38	6	10	2
Meiktila	8	5	26	5	64	4	169	11	99	8	24	2
Yamèthin... ...	8	8	31	8	64	15	57	10	41	10	22	4
Myingyan... ..	1	1	4	3	34	5	29	2	18	2	9	2
II. Deltaic Plains ...	*16*	*11*	*123*	*60*	*259*	*49*	*213*	*52*	*160*	*42*	*104*	*24*
Rangoon	352	272	1,762	1,080	1,729	1,068	1,209	791	1,212	736	851	49
Hanthawaddy ...	8	8	55	26	118	32	121	29	88	23	42	2
Tharrawaddy ...	5	3	57	17	135	9	57	8	50	8	29	5
Pegu	4	1	50	6	101	16	80	20	59	8	34	6
Bassein	4	3	36	18	122	37	87	18	63	16	55	13
Henzada	4	1	43	12	95	19	59	8	46	8	50	4
Myaungmya ...	3	...	21	8	51	11	41	8	30	6	21	4
Ma-ubin	1	1	40	8	101	17	51	7	41	6	28	5
Pyapôn	1	...	9	1	49	8	43	7	30	4		
Thatôn	1	1	15	5	56	9	55	7	35	5	16	2
Toungoo	11	8	92	38	218	56	105	25	88	25	15	19
III. Northern Hill Districts.	*3*	*1*	*16*	*3*	*25*	*6*	*76*	*8*	*46*	*6*	*28*	*4*
Bhamo	2	2	34	5	59	16	139	25	89	10	62	6
Myitkyina ...	9	3	19	...	17	8	110	11	75	8	47	9
Katha	1	...	4	2	10	5	41	5	24	3	19	3
Ruby Mines ...	7	1	30	11	28	5	60	14	43	10	33	2
Upper Chindwin...	2	1	6	...	19	...	40	2	25	2	12	2
IV. Coast Ranges ...	*8*	*6*	*66*	*38*	*134*	*30*	*94*	*18*	*71*	*18*	*69*	*16*
Akyab	4	2	31	7	74	2	64	8	47	6	45	7
Northern Arakan	...	...	...	...	9	...	26	5	17	3	18	...
Kyaukpyu ...	...	...	4	1	17	3	36	2	22	2	21	3
Sandoway ...	2	1	36	...	87	2	65	4	46	2	41	2
Salween	...	...	...	...	5	...	32	4	2	2	6	2
Amherst	23	18	146	131	256	110	202	60	159	61	102	51
Tavoy	15	2	36	...	143	3	68	5	55	4	31	3
Mergui	3	2	14	5	78	9	71	14	47	9	60	9
V. Specially Administered Territories.	*1*	...	*3*	*1*	*6*	*2*	*12*	*1*	*9*	*1*	*6*	...
Northern Shan States.	1	1	3	...	6	1	17	2	10	1	13	1
Southern Shan States.	1	...	4	1	6	1	15	1	9	1	3	...
Pakôkku Hill Tracts.	...	...	...	...	...	...	...	...	...	...	...	...
Chin Hills ...	...	...	3	...	2	9	10	...	6	1	...	...

SUBSIDIARY TABLE V.—*Progress of Education since* 1881.

District and Natural Division.	Number of Literate per mille.															
	All ages.								15—20.				20 and over.			
	Male.				Female.				Male.		Female.		Male.		Female.	
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1911.	1901.	1911.	1901.	1911.	1901.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Province	376	378	395	461	61	45	24	86	479	485	109	77	544	537	75	53
Central Basin	433	456	421	...	44	30	15	...	547	587	82	47	656	681	54	37
Prome	493	449	475	470	62	41	25	16	638	561	113	66	739	697	70	50
Thayetmyo	477	487	477	510	42	38	19	16	579	651	75	60	725	720	54	48
Pakôkku	378	468	383		43	23	8		458	622	90	35	604	718	51	29
Minbu	451	532	468		32	35	11		578	684	52	55	693	781	43	42
Magwe	470	501	472		26	16	11		618	662	38	23	725	788	35	21
Mandalay	455	654	438	Not Enumerated.	99	76	42	Not Enumerated.	586	645	157	119	618	671	123	91
Shwebo	429	505	451		73	19	7		545	640	108	25	649	746	94	24
Sagaing	434	482	415		40	30	13		567	629	81	47	644	726	45	37
Lower Chindwin	362	407	380		19	18	7		450	491	35	31	586	627	23	19
Kyaukse	408	354	263		38	23	8		492	415	77	33	562	491	37	26
Meiktila	408	331	387		21	17	8		518	405	43	25	623	514	26	21
Yamèthin	419	391	368		32	20	11		516	503	57	30	640	592	40	25
Myingyan	432	450	396		31	24	11		533	586	55	34	678	689	38	28
Deltaic Plains	454	433	436	...	111	80	40	...	582	544	196	138	628	593	141	95
Rangoon	439	410	381	475	359	268	154	151	548	508	502	418	460	402	422	262
Hanthawaddy	493	483	463	524	145	110	37	43	618	599	269	188	651	640	178	116
Tharrawaddy	508	484	469	553	85	62	28	33	679	652	165	107	756	717	103	75
Pegu	483	450	497	...	122	92	51	...	637	572	218	156	662	623	152	111
Bassein	444	414	380	487	100	75	32	27	774	521	540	125	644	609	127	101
Henzada	517	477	461	619	97	54	28	18	675	588	167	98	783	723	120	65
Myaungmya	433	428	}		{ 98	72	}		{ 525	515	172	127	635	637	131	94
Ma-ubin	485	} 468	} 483	572	{ 109	} 81	} 40	51	{ 622	} 608	{ 196	} 149	{ 694	} 641	{ 134	} 103
Pyapon	554				{ 129				{ 698		{ 250		{ 756		{ 169	
Thaton	270	235	353	360	57	41	31	70	375	294	102	76	398	359	74	52
Toungoo	369	356	355	485	62	50	37	47	467	470	111	84	538	515	77	61
Northern Hill Districts	356	379	347	...	26	21	10	...	464	464	49	32	496	514	30	26
Bhamo	191	224	} 177	...	{ 22	24	} 5	...	{ 189	234	42	39	277	291	24	26
Myitkyina	219	286			{ 19	21			{ 296	294	31	34	281	373	21	25
Katha	441	399	324	...	23	20	15	...	560	516	37	31	647	576	29	25
Ruby Mines	273	282	229	...	40	24	9	...	319	341	83	37	364	363	41	29
Upper Chindwin	496	530	554	...	29	20	9	...	674	675	58	27	707	737	34	26
Coast Ranges	270	285	298	...	39	39	20	...	308	340	61	55	396	409	51	50
Akyab	252	286	272	333	26	34	17	27	264	338	32	46	372	406	38	47
Northern Arakan	61	55	49	33	3	5	...	...	51	62	3	7	94	81	5	7
Kyaukpyu	292	338	351	469	24	29	15	46	304	401	32	36	452	505	33	39
Sandoway	347	343	303	349	40	32	11	6	413	408	69	45	548	542	51	44
Salween	46	51	45	41	5	6	4	...	44	66	4	11	69	73	7	8
Amherst	283	261	267	309	62	56	29	37	342	302	105	77	421	342	83	67
Tavoy	314	313	336	349	44	44	22	23	433	395	78	69	481	492	54	55
Mergui	298	333	271	365	57	55	19	39	333	389	95	86	456	519	76	75
Specially Administered Territories.	94	72	...	...	6	3	...	...	139	119	9	4	134	94	7	36
Northern Shan States	90	97	...	...	5	3	...	...	123	156	8	3	124	121	6	4
Southern Shan States	107	69	...	...	7	3	...	...	164	118	11	5	154	91	8	4
Chin Hills	11	23	...	...	...	...	...	...	8	15	...	1	19	38	...	...

SUBSIDIARY TABLE VI.—*Education by Tribe or Race.*

Tribe or Race.	Year.	Number per 1,000						Number per 10,000 literate in English.		
		Literate.			Illiterate.					
		Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11
Arakanese	1911	169	309	19	831	691	981	34	61	5
Chin	1911	28	54	4	972	946	996	2	3	1
	1901	25	48	2	975	952	998	1	2	...
Chinese	1911	271	321	111	729	679	889	183	230	29
Danu	1911	133	230	36	868	770	964	...	...	...
Karen	1911	126	191	62	874	809	938	47	68	27
	1901	91	143	37	909	857	963	23	33	12
Kachin	1911	9	12	6	991	988	994	1	2	...
	1901	8	14	2	992	986	998	...	...	...
Shan	1911	101	181	22	899	819	978	2	3	1
	1901	79	152	9	921	848	991	1	2	...
Talaing	1911	221	366	78	779	634	922	19	21	18
	1901	211	557	62	789	643	937	2	19	3
Taungthu	1911	58	90	25	942	910	975	1	1	1
Wa Palaung...	1911	28	43	14	972	957	986	...	...	...

SUBSIDIARY TABLE VII.—*Number of Institutions and pupils according to the returns of the Education Department.*

Class of Institution.	1911.		1901.		1891.	
	Number of		Number of		Number of	
	Institutions.	Scholars.	Institutions.	Scholars.	Institutions.	Scholars.
1	2	3	4	5	6	7
Arts Colleges ...	2	278	2	140	1	25
Secondary Schools ...	876	78,283	329	30,000	83	9,604
Primary Schools ...	5,448	177,668	4,091	127,638	5,710	118,057
School for special Instruction.	236	2,932	59	1,616	25	704
Private Institutions ...	16,499	170,831	13,118	147,682	5,044	40,059
Total ...	23,061	429,992	17,599	307,076	10,863	168,449

SUBSIDIARY TABLE VIII.—*Main results of University Examinations.*

Examination.	1911.		1901.		1891.	
	Candidate.	Passed.	Candidate.	Passed.	Candidate.	Passed.
1	2	3	4	5	6	7
Matriculation (Entrance).	138	93	204	107	87	46
F. A. or I. A. ...	112	56	57	23	8	5
B. A.	23	13	12	6	1	1

SUBSIDIARY TABLE IX.—*Number and Circulation of Newspapers, etc.*

Language.	Class of newspapers (Daily, weekly, etc.)	1910.		1900.		1890.	
		No.	Circulation.	No.	Circulation.	No.	Circulation.
1	2	3	4	5	6	7	8
Grand Total	.....	44	28,413	26	12,580	15	5,300
English	**Total** ...	19	11,598	15	7,950	10	3,720
	Daily	3	3,450	6	4,900	3	2,500
	Bi-weekly	2	400	2	1,150	2	250
	Tri-weekly	2	320	3	550	2	370
	Weekly	7	4,113	4	1,350	3	600
	Monthly ...	4	1,815	...	...	...	..
	Quarterly ...	1	1,500	...	...	...	...
English and Burmese ...	**Total**	5	1,350	...	...	...	...
	Daily	1	450	...	...	...	...
	Bi-weekly ...	2	550	...	...	..	...
	Weekly	2	350	...	...	...	...
Burmese	**Total**	12	9,015	6	2,380	2	480
	Daily	2	2,000	2	1,200	...	...
	Bi-weekly ...	3	1,957	3	460	1	180
	Tri-weekly ...	2	2,136	...	...	...	...
	Weekly	3	1,822	1	720	1	300
	Monthly	2	1,100	...	...	...	...
Karen	**Total**	5	4,900	3	1,500	3	1,100
	Weekly	2	2,500	1	500	1	500
	Fortnightly ...	1	500	1	600	1	200
	Monthly ...	2	1,900	1	400	1	400
Urdu	Weekly	1	800	...	...	...	...
Gujarati	Bi-weekly ...	1	250	1	500	...	...
Tamil	Weekly	1	500	1	250	...	...

SUBSIDIARY TABLE X.—*Number of Books published in each language.*

Language.	Number of books published in												
	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	Total of decade		
											1901-10.	1891-00.	1881-91.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
English	7	5	5	7	...	8	6	3	15	23	79	86	132
English and Burmese	3	9	5	...	...	22	3	6	4	10	62	50	88
Burmese	34	47	68	62	50	89	77	118	100	227	872	348	1,019
Pali Burmese	82	47	45	61	63	104	64	65	83	75	689	280	69
Sgau Karen	2	3	5	1	...	2	3	2	3	3	24	26	53
Sgau Karen and English ...	...	...	...	...	...	...	...	...	...	...	...	2	...
Pali	5	4	13	11	23	29	14	20	30	20	169	10	13
English, Tamil, Burmese and Guzarati.	1	...	...	...	...	...	...	...	...	...	1	...	...
Shan	...	3	2	...	...	1	...	...	1	1	8	8	12
Kachin	...	2	1	2	...	...	1	1	...	...	7	7	2
Talaing	...	1	...	...	...	1	...	...	1	...	3	2	2
Pwo Karen	...	1	...	...	...	..	...	..	1	...	2	6	34
Tamil	...	1	...	1	4	3	1	1	1	1	13	4	10
Urdu	...	...	1	...	...	...	...	1	2	5	9	1	2
Bengali	...	...	1	...	...	...	...	...	...	...	1	3	4
Tamil and English	...	..	...	1	...	...	...	...	1	1	3	2	10
English and Shan	...	...	..	...	...	...	1	1	...	...	2	...	6
English and Pali	...	...	...	...	...	1	...	1	...	2	4	1	12
Kachin and English	...	...	...	...	...	...	...	1	...	...	1	3	6
Talaing and English	...	...	...	...	...	...	1	1	...	...	2	3	6
Chin and English	...	...	...	...	...	1	...	...	...	...	1	...	...
Lahu	...	...	...	...	...	...	...	...	1	...	1	..	...
Chin	...	...	...	...	...	1	...	...	3	...	4	...	...
Arabic	...	...	...	...	...	...	...	...	...	3	3	...	...
English and Hindi	...	...	..	...	...	...	...	...	...	1	1	...	...
Parsi	...	..	...	...	...	...	...	...	...	1	1	...	...
Pegaun	...	...	...	...	...	1	...	...	...	...	1	...	...
Telegu	...	...	...	...	...	...	...	...	...	..	...	1	1
Burmese and Talaing	...	...	...	...	...	...	...	...	...	...	...	1	...
Arabic and Burmese	...	...	...	...	...	...	...	...	...	...	...	2	...
Chin	...	...	...	...	...	...	...	...	...	...	...	1	...
Total ...	134	123	146	146	140	263	171	221	246	373	1,963	847	1,481

CHAPTER IX.

Language.

"Most of the dialects belonging to the Burma group are all but unknown, and only the classical language of the Burmese literature, as it is spoken by educated Burmans, has been made available to philologists."—Dr. GRIERSON.

"So little information has until the last few years been available about most of the Indo-Chinese tribes, that it is not surprising that the great professors of philology have not gone very deeply into the branch of their science that includes this region. It can be asserted with confidence that nothing has been written on this subject that does not contain errors, and the present attempt will doubtless be found equally open to such criticism."—Major DAVIES.

"In the present condition of our knowledge of the Indo-Chinese peoples, practically every statement concerning them must be regarded as controversial." Sir RICHARD TEMPLE.

"On the whole, it is impossible to classify the Tibeto-Burman dialects satisfactorily. They must have split up into many different forms of speech at a very early period, and there are numerous crossings and intercrossings."—Dr. GRIERSON.

165. Language Statistics and their Reliability.—The distribution of the population of Burma according to the languages spoken is given for each administrative district and division in Imperial Table X. Subsidiary Tables I, IA, IB, II and III give different aspects of the same distribution for the province as a whole, for the five natural divisions, and afford a comparison of the numbers speaking each language in the years 1901 and 1911. As to the accuracy of the figures presented it is difficult to generalise. Existing knowledge of the divisions and subdivisions of the main groups is too limited to admit of the issue of any general instructions as to which dialects are to be entered as separate languages, and which are to be ignored and entered under a broader category. Such questions must be decided by the various grades of local census officers. But though their knowledge of the spoken language is generally intimate, the application of their knowledge is by no means uniform in principle. From district to district, and even in different portions of the same district, the methods of recording localised dialects varied. This was especially the case in the Northern Hill Districts and the Specially Administered Territories, where the numbers of tribes who claim to have an independent existence and to speak an independent language is considerable. But it is not confined to such obscure cases. A striking example can be found in the different treatment of the Arakanese and the Tavoyan languages. They possess many points of similarity, and are about equally removed from Burmese in the scale of mutual intelligibility. Yet the former is invariably distinguished from Burmese; while the latter is just as invariably entered as Burmese; unless a Tavoyan, finding himself stranded in a distant district, expresses his acquired knowledge of their points of difference by having his native dialect recorded. It follows that the figures for the smaller linguistic subdivisions of the main groups may frequently be incomplete. They may represent only a portion of the persons speaking the language, the remainder being entered as speaking the group language without any specific record of any minor subdivision.

In another respect the record is incomplete. Many members of the recorded tribe live either in the areas omitted from census operations or outside the limits of the province. The numbers given as speaking any given language are simply those contained within a varying limit dictated by administrative considerations. The limits of the present enumeration differ in several instances from those adopted in 1901 and in making a comparison the change of such limits must be considered. Similarly, changes in the class of census effected enabling a classification of languages to be made, where none was attempted previously must be taken into account. This will be done when the numbers of speakers of each separate language are under consideration.

Generally the Burma group of languages has been unaffected by any change in census limits, their range not extending beyond the census area of 1901. The Sinitic group has been affected by the inclusion of Karenni into the regular census area enabling its various Bghai dialects to be numerically classified. The records of the present census give for the first time a complete record for this language group. For the remaining groups of the Tibeto-Chinese family, the Kuki-Chin, the Kachin,

the Lolo and the Tai groups of languages, the area of the current census does not agree with the area of the census for 1901. Nor does it include the whole area where these languages are spoken. As for the Mon-Khmer languages, the area in which Talaing is spoken is identical for the two enumerations and the figures are complete for this particular language. But for the Palaung-Wa and the Miao-Yao groups, the areas for the two enumerations do not coincide, and the present census limits do not cover the areas within which these groups of languages are spoken.

166. Correspondence between Race and Language.—A close examination of the figures recorded for the members of a tribe or race and the persons speaking the tribal or racial language will reveal numerous discrepancies. Occasionally there is a close correspondence between the figures for the two categories, but more frequently there are wide divergencies, even cutting across such a primary phenomenon as sex, and appearing to introduce inexplicable anomalies. There are many causes for such discrepancies. Some are no doubt due to the want of uniformity in the method of record, but the majority are due to an actual want of correspondence in the facts themselves. Some enumerators inserted the local tribe as the racial designation of the individual, and the general group of language as the language spoken. Others reversed the process, generalising in the entries of race, and particularising in the entries of language. But a far more potent influence in the variations is the instability of racial and language distinctions. The province of Burma is in a stage of rapid transition in most of the phases of its national life. In its linguistic and ethnical phases, the process of change takes the form of the absorption of the smaller and less virile races by those of a larger and more strongly developed stage of existence. The Burmese, the Shans and the Kachins are strongly absorptive with respect to the remaining races. But they also act and react on each other, their relative powers of assimilation and resistance varying with the locality, the environment and the numbers brought into contact with each other. With such a complex distribution of races and tribes the process of transition proceeds in a highly irregular manner. Race and language do not change simultaneously, nor uniformly, nor according to any determined formulæ. Sometimes a change of racial designation precedes a change of language; but more usually the process is reversed, language being the most effective weapon of the stronger race in the competitive struggle. Even in the household or family unit, the process is at work in varied and unexpected directions. Sometimes the husband is of one race or language and the wife of another, sometimes the brothers are brought up as members of one race and the sisters as members of another, and sometimes the parents or grandparents remain as members of a primitive tribe, while their children acquire the language and assume the race of some more progressive community. These changes, though of course hastened and intensified by intermarriage beyond racial or tribal limits, are not confined to cases where such intermarriage has been operating. The appearance of a Shan or Burmese monk and the opening of a village school may be the prelude to a transformation in race, language and religion. The exigencies of travel or business may induce a change of racial designation or language in the men of a tribe, while the women retain their primitive tribal characteristics. Or such a seemingly irrelevant consideration as the extremely privileged position held by the women of the Burmese race may be the determining factor in changing the nominal race of the women, and through them ultimately the race of the tribe.

Instances of the operation of such transitions may be seen in the course of a discussion of the individual languages spoken. It is hoped also to return to a further consideration of the question of racial instability in the chapter on Caste, Tribe and Race of this volume. Indeed, it belongs rather to a racial than to a linguistic phase of the life of the people, but linguistic considerations enter so largely into the changes that some notice of their operation in this chapter is essential.

167. General Principles of Classification.—In the Census Reports for 1891 and 1901, it was necessary to include an exposition of the general principles of language classification, and their application to the languages spoken by the people of Burma. Without such assistance it would have been impossible to reduce to order the numerous languages and dialects recorded. But the completion of the work of the Linguistic Survey of India in 1904 has provided an authoritative scheme of classification and rendered any reconsideration of first principles unnecessary. Nor is it necessary to discuss the philological characteristics of the languages spoken; whether monotonic or polytonic, whether isolating or aggultinative. Such

a discussion was necessary prior to a determination of the correct principles of classification to apply; whether geographical, or genealogical, or morphological. But now that a genealogical classification has been definitely adopted, and the usage of tones and the joining of syllables abandoned as determinants, the latter relapse into their position as pertaining rather to the philological than to the statistical branch of the study of languages. The application generally of the terms "polytonic" and "isolating" to the Indo-Chinese languages requires such variations and modifications in the meaning of these determining factors, and even then is subject to such wide exceptions, that it must be studied language by language and group by group. Such an attempt in a chapter which is primarily statistical would cause an expansion beyond all legitimate limits.

168. Linguistic Survey of India.—The Linguistic Survey of India did not extend its operations to include the province of Burma. It was considered that the state of knowledge of the numerous languages and dialects of the province was too immature to form the basis of an accurate and an authoritative survey. In a linguistic sense, Burma was deemed a region suited for exploration rather than for survey. A survey implied a greater preliminary knowledge of the phenomena to be surveyed, than could be asserted with respect to the languages of Burma. In the words of Dr. Grierson, most of the dialects belonging to the Burma group are all but unknown, and only the classical language of the Burmese literature, as it is spoken by educated Burmans, has been made available to philologists. Yet, although Burma was excluded from its operations, the examination of the languages of Assam necessary for the linguistic survey of that province, involved a consideration of the families and groups of most of the vernaculars of Burma, and resulted in a scheme of classification which can be applied with but slight modification and extension to Burmese linguistic conditions.

The method of classification adopted is genealogical. Each language is traced by means of its structural affinities back to some main family from which it has descended and diverged in the course of time. The effects of migration, of dispersion, of change in environment, and of contact with, or submergence by, races speaking other languages are estimated and discounted. After this process the points of similarity or contrast are considered and the place of any language in the scheme of classification can be determined.

With the exception of the language of the Salons or Mawken, a race of sea gypsies inhabiting the islands and seas of the Mergui Archipelago, the whole of the languages in Burma can be traced back to the two main families, the Austro-Asiatic and the Tibeto-Chinese. The philological methods of arriving at this result are beyond a statistical treatment of the subject. The historical movements and transformations relevant to the process of linguistic classification are related briefly in Chapter XI of this report, devoted to a consideration of the racial characteristics of the province. Beyond this, no further presentation of the steps leading from the two primary sources, to their numerous and complex resultant languages will be attempted.

169. Source of fresh Information concerning Burmese Frontier Languages.—The most important contribution to the knowledge of the languages spoken in Burma since the completion of the Linguistic Survey is to be found in the work on Yun-nan by Major H. R. Davies to which reference has been previously made. The comparative vocabularies furnished, and the information given in Appendix VIII of the Volume, supplement the work of the Linguistic Survey, and bring the date for extension of that work to include the Burmese portion of the Indian Empire appreciably nearer. While adopting generally the system of classification authorized by the Linguistic Survey, Major Davies makes one important departure from the scheme. He applies the term "Sinitic" as a suitable designation for the whole of the languages spoken in Yun-nan and Western Ssu-chuan. In the authorized scheme the term "Sinitic" is limited to the Karen languages, a group of the Siamese-Chinese sub-family of the Tibeto-Chinese family of languages. It is unfortunate that the same term should be applied to a minor group of the extensive Tibeto-Chinese family, and at the same time to a geographic collection of languages belonging to both the Tibeto-Chinese and the Austro-Asiatic families. The anomaly is intensified by the fact that the Sinitic or Karen group of languages according to the Linguistic Survey does not come within the languages analysed and described by Major Davies as the Sinitic languages of Yun-nan and Ssu-chuan.

170. Change in group classification.—In one respect the classification suggested by Major Davies is an important advance on the tentative grouping hitherto adopted. He has changed the name of the Lisaw sub-group into the Lolo group of languages. The changes both in name and in category are justified. The inclusion of the languages concerned (Lisaw, Lahu, Akha and Ako) in a sub-group of the Burmese languages was due to the belief that they were either hybrids, the result of an intermixture of Burmese with localised tribal languages, or that they were a comparatively recent development of the Burmese language. Such a belief, and such a classification, were tentative only, and due to an imperfect knowledge of the languages concerned. It is now certain that although they undoubtedly belong to the Tibeto-Burman family, they are an independent group which have developed naturally from the original speech of the Tibeto-Burman immigrants. The grouping of Major Davies is confirmed in a paper on the Lisu (Yawyin) tribes of the Burma-China Frontier by Messrs. Archibald Rose and J. Coggin Brown, published in the fourth number of Volume III of the Memoirs of the Asiatic Society of Bengal. It is also supported by the studies in the Lahu, Akha (Kaw) and Wa languages by Reverend C. B. Antisdel published in the first Volume of the Journal of the Burma Research Society. The Reverend J. G. Geis, Mr. W. A. Hertz and Major ffrench-Mullen, all authorities on the tribes and races of the Burmese Frontier are also of the opinion that these languages, though of Tibeto-Burman origin, are not hybrids of the nature of a mixture of Burmese with local vernaculars. The change in name as well as in category is suggested by a consideration of the relative importance of the Lolo and the Lisaw tribes. The Lisaws are but a minor localised tribe inhabiting a portion of the Upper Salween valley. On the other hand, the Lolos are the most universal and widely spread tribe of western China. They form the bulk of the hill population of Yun-nan and are the most numerous of the non-Chinese tribes of that province. They extend beyond its borders into the neighbouring provinces of China and a few of them are to be found in Burma. They are undoubtedly the premier tribe of the group and their names should be given to it, in preference to the name of a relatively much smaller tribe whose location happens to be within the Burmese frontier.

171. Addition to the Classified Scheme.—In another respect owing to the appearance of two fresh languages I have followed the classification of Major Davies. He includes the Miao (Miaotzu) and the Yao languages as a group of the Mon-Khmer family. The number of words he has been able to compare are not sufficient to establish more than a *primâ facie* case for the conclusion, but in the absence of other evidence it may be accepted until confirmed or disproved by later researches. The reasons for this classification can best be given in his own words:

"With the Miao-Yao group, however, the matter is different. Most writers have put these languages in a class by themselves and considered that they have little or no connection with the speech of their neighbours in Yun-nan. They cannot certainly be classified with the Shan, the Chinese, or the Tibeto-Burman. Their likeness to other Mon-Khmer languages is, it must be admitted, not a very close one. But I think the resemblance is enough to warrant their inclusion in this family. It must be remembered that the Miao and Yao are only quite recent immigrants into Yun-nan, and that therefore for a period which may probably be measured by thousands of years they have had no close connection with the Arakanese, the Cambodians, or the Talains. We cannot therefore expect to find the same resemblance of language between Yao and Wa that we find between Palaung and Wa, spoken as these latter are by two tribes who still live close together, and who were probably one and the same tribe when they arrived at their present locality."

"In the next table I have endeavoured to show the connection between Miao and Yao on the one hand and the Mon-Khmer family on the other. The list might have been made somewhat longer, but I have only put down what seemed the most striking examples. The number of words compared were about 160 in the case of Miao and only 70 in Yao. Considering therefore the small number of words available for comparison, this table may perhaps be considered enough to establish a *primâ facie* case for the inclusion of the Miao and Yao languages in the Mon-Khmer family. It is of course possible that some of the resemblances may be accidental, but on the other hand a more extended knowledge of both the Miao-Yao group and of the Wa-Palaung group will most likely lead to the discovery of the common origin of words which do not at first sight appear to be connected. It is to a great extent grouping in the dark to compare languages of which one has no practical knowledge and of which even grammars and dictionaries are not available."

172. Existing and previous Schemes of Classification compared.—It is necessary to indicate those changes in the general scheme of classification resulting from fresh information discovered since the last Census Report was

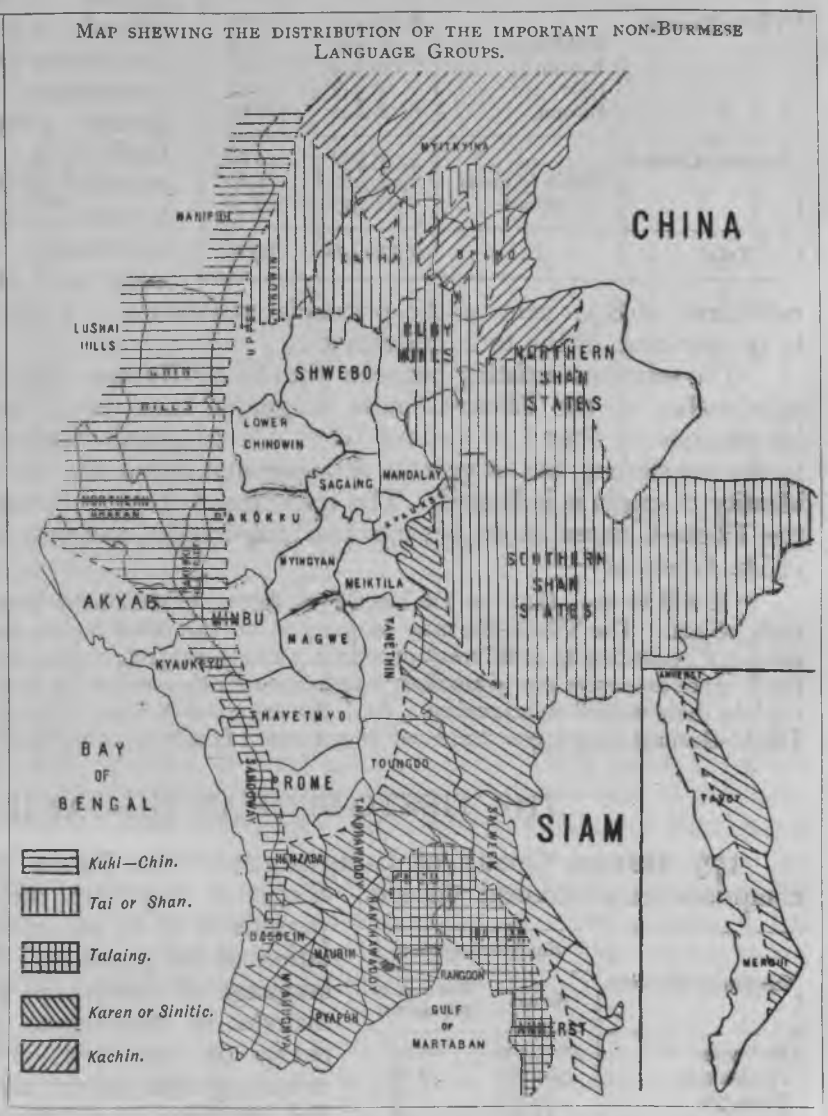
written. The actual classification adopted is given in Subsidiary Table I, at the end of this chapter. This is expanded in two further Tables IA and IB, designed to show the relative position of each language recorded, however insignificant it may be. But these tables do not show how the present classification of the indigenous languages of the province compares with that of 1901. The comparison is best seen in the diagram given below :—

1901.			1911.		
Family.	Sub-family.	Group.	Group.	Sub-family.	Family.
Indo-Chinese	Tibeto-Burman	Burmese Kachin Kuki-Chin	Burmese Lolo Kachin Kuki-Chin	Tibeto-Burman	Tibeto-Chinese.
	Siamese-Chinese	Tai Karen	Tai Sinitic	Siamese-Chinese	
	Mon-Annam	North-Cambodian Wa-Palaung	Talaing Palaung-Wa Miao-Yao	Mōn-Khmēr	Austro-Asiatic.
Malay	...	Malay	Malay	..	Malayo-Polynesian.

The Indo-Chinese family has been broken up. Of its three sub-families, the Mon-Annam or Mon-Khmer has been associated with the Munda languages to form the Austro-Asiatic family, the remaining two have remained together under the fresh designation of the Tibeto-Chinese family. These changes are both fundamental and authoritative.

Other minor and tentative changes are the separation of the Lolo from the Burmese group and its appearance as an independent group under a new name; and the inclusion of a new group, the Miao-Yao, in the Mon-Khmer sub-family owing to the appearance of the two fresh constituent languages in the census records.

MAP SHEWING THE DISTRIBUTION OF THE IMPORTANT NON-BURMESE LANGUAGE GROUPS.



173. Method of Discussion.—The number of languages and dialects is so great, the knowledge of their derivation and structure is so limited, and the lines of demarcation between them are as yet so indeterminate, that there is considerable difficulty in approaching a discussion of each constituent individually. A possible method would be a separate treatment of each language or dialect followed by a grouping into their respective branches and families. Such indeed would be the only method for a philological consideration of the subject. But a philological examination of the languages of the province is impossible for the

Superintendent of Census Operations, even if the material for such an examination were available. Statistically, a contrary method, proceeding from the general to the particular, is more natural. Starting from the three families, the Tibeto-Chinese, the Austro-Asiatic and the Malayo-Polynesian, to which all the indigenous languages of the province belong, the first process of subdivision is the distinction between the Tibeto-Burman and the Siamese-Chinese sub-families of the Tibeto-Chinese family. The three categories are thereby increased to four, which in their turn are subdivided into ten groups, each containing a number of constituents, the whole numbering sixty-five indigenous languages and dialects. It is necessary to proceed along these successive stages of subdivision touching lightly on the more generalised combinations, and descending more closely into detail as the ultimate elements are approached.

No attempt will be made to discuss the non-indigenous languages spoken beyond a purely numerical comparison of the numbers using a few foreign forms of speech with those recorded at previous enumerations.

174. Tibeto-Chinese Family.—The relations and distinctions between the two sub-families and the six groups comprising the Tibeto-Chinese family of languages can best be appreciated by a reference to the brief historical synopsis at the commencement of Chapter XI of this volume. The migrations therein related explain the origin and distribution of the speakers of the vernaculars forming the various groups comprised within the family. It includes the great majority of the population of the province. The Tibeto-Burman sub-family comprises ·73 per cent. and the Siamese-Chinese sub-family 16·8 per cent. of the provincial population. Together they approximate to 90 per cent. of the total inhabitants.

Tibeto-Chinese Languages.

Sub-family.	Group.	Number of speakers.	
		Actual.	Percentage.
Tibeto-Burman	...	8,850,446	73·06
	Kuki Chin ...	296,912	2·45
	Kachin ...	170,144	1·40
	Lolo	65,548	·54
	Burma ...	8,317,842	68·67
Siamese-Chinese	...	2,035,738	16·80
	Sinitic (Karen)	1,067,363	8·81
	Tai (Shan) ...	968,375	7·99
Total ...	.....	10,886,184	89·86

The relations existing between the Tibeto-Burman and the Siamese-Chinese sub-families of the Tibeto-Chinese languages have been considered fully in the introduction to Part I of Volume III of the Linguistic Survey of India. Not only in the vocabulary, but in general structure and also in the use of tones, an ultimate identity of origin is indicated. The reasons which have dictated the subdivision of the Tibeto-Chinese languages into two sub-families can best be given in the words of Dr. Grierson :—

"It will be seen that the Tai languages agree with Chinese in using the order, subject, verb, object. The Tibeto-Burman languages, on the other hand, arrange the words of the sentence according to a different principle, namely, subject, object, verb. They also make a much more extensive use of auxiliary words in order to connect the words of a sentence and to explain their mutual relationship. As a consequence of these important characteristics, the Tibeto-Burman languages stand out as a distinct family as compared with Tai and Chinese."

THE TIBETO-BURMAN SUB-FAMILY.

175. Burma Group of Languages.—The Burma group of languages comprises ten constituent dialects. Together they form the speech of 8,317,842 persons or 68·67 per cent. of the total population of the province. Burmese, the central language of the group, overshadows the remainder in importance, providing as it does nearly 95 per cent. of its members. The remaining nine dialects are spoken by tribes on the outskirts of the Burmese portion of the province. Some of them are developments of the more primitive forms of Burmese speech, evolving on different lines in different environments. Isolated from the parent stock and subjected to outside influences, they differ in a greater or less degree from the main language while retaining its principal and distinctive characteristics. Others, like Danu and

Constituent Members.	Number of speakers.	
	Actual.	Per cent. of population.
Burmese ...	7,883,299	65·07
Arakanese ...	323,962	2·68
Taungyo ...	19,317	·16
Intha	55,880	·46
Danu	18,694	·16
Hpon	342	...
Tavoyan	46	...
Kadu	11,069	·10
Chaungtha ...	2,515	·02
Mro or Mru ..	2,718	·02
Total ...	8,317,842	68·67

Kadu, are hybrid tongues evolved by the admixture of neighbouring tribes with the Burmese, and presenting almost insuperable difficulties of classification. A geographical division would place the Hpon and Kadu dialects to the north; the Arakanese and its derivatives, the Chaungtha and the Mru, to the west; the Tavoyan to the south and the Danu, Intha and Taungyo dialects to the east of the main body. Apart from Burmese, only the Arakanese can claim numerical significance, the Intha dialect, coming next in the number of its speakers, claiming less than one half per cent. of the total provincial population.

MAP SHEWING DISTRIBUTION OF THE MINOR LANGUAGES OF THE BURMA GROUP.

The increase in the population using the forms of speech comprised within the Burmese group has been considerable, amounting to 880,479 or 11·83 per cent. since 1901. It is a genuine increase, not being affected by any increase in census limits or by the extension of the classification of languages to regions where previously only a bare enumeration of the population was attempted. The expansion of the language has not been so rapid as the corresponding racial expansion of 12·57 per cent., but the linguistic limits of the group still remain much wider than its purely racial limits. This divergence between the number of speakers of the Burmese group of languages and the number of members of Burmese tribes is a sure indication of the process of assimilation continuously proceeding. The race expands and absorbs the members of other races principally through the medium of language. The non-Burmese users of forms of speech belonging to the Burma group are potential additions to the Burmese race.

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of racial group	7,986,,327	7,094,167	892,160	12·57
Number of speakers ...	8,317,842	7,437,363	880,479	11·83

176. Burmese.—The main language of the Burma group is of course Burmese. It is the language of 7,883,299 persons or of 65 per cent. of the total population of the province. The number of persons using Burmese as a form of speech is still very largely in advance of the number of persons of Burmese race, though the number of non-Burmese speakers of the language is not so great as in 1901. Still the excess

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of race ...	7,479,433	6,508,682	970,751	14·91
Number speaking racial language.	7,883,299	7,006,495	876,804	12·51

(403,866) is remarkable. It is an indication of the absorptive power of the race, for the extension of the language is the first step in the incorporation of the members of the surrounding races into the main central stock. The expansion in numbers (876,804) or 12·51 per cent. during the decade is perhaps not altogether legitimate. It represents an increasing tendency to suppress the record of local dialects and enter them under the designation of the parent tongue. But this tendency is really an acknowledgment of the prestige of the dominant language. It indicates the removal of traditional barriers and the initiation of a slow but gradual process of assimilation.

177. Arakanese.—After Burmese, Arakanese is the principal dialect of the Burmese group. It affords an illustration of the effect produced by physical obstacles and lack of facilities of communication, in producing differences in languages of cognate origin. The existence of the Arakan Yomas has caused considerable differences in the development of the languages spoken within the valley of the Irrawaddy and on the shores of the Bay of Bengal. Phonetically, Arakanese approximates much more closely to the written language than Burmese, and it is probable that it represents an earlier stage in the development of Burmese. There is a large decline in the number of persons recorded as speaking Arakanese. It is doubtful how far this is a genuine decrease caused by the spread of the Burmese language, and how far it is a nominal decrease due to the cause which leads a Tavoyan to record his language as Burmese. Both of these influences have probably had their effect. Burmese is making headway both in prestige and in actual fact. Mr. Lowis recorded the opinion, despite an increase in the figures he was reviewing, that Arakanese is bound eventually to disappear and that after another decennial census or two, it will probably be possible to calculate fairly accurately the date by which it will have vanished off the face of Burma. A decrease of 15·5 per cent. is a perceptible step in this direction. A still more significant indication of the gradual decay of the language is the fact that the number using it as a form of speech is less than the number of the Arakanese race. A progressive language goes in advance of the race by which it is spoken. A language which cannot count in the number of its speakers the full total of the corresponding race is in a stage of retrogression.

—	1911.	1901.	Decrease.	
			Actual.	Per cent.
Strength of race ...	344,123	405,143	61,020	15·06
Number speaking racial language.	323,962	383,400	59,438	15·50

178. Taungyo.—The literature of Burmese ethnography contains several examples of the confusion resulting from drawing superficial deductions from similarity in racial or tribal designations. The confusion is doubled when similarity of name is combined with proximity of location. The Danus and the Danaws afford an instance of the confusion resulting from the application of superficial knowledge and points of resemblance. A parallel instance is that of the Taungyos and the Taungthus. These tribes are treated together in the Gazetteer of Upper Burma and the Shan States. and though points of difference are indicated, their conjoint treatment obscures the fundamental character of their distinction between them. The Taungyos are as essentially Burmese, as the Taungthus are essentially Karen, in their origin. The Taungyos are a Burmese tribe located in the west of the Southern Shan States, isolated from contact with the main branch of the Burmese racial group. The Taungyo speech is so markedly Burmese, and shews such resemblances to the primitive Burmese found in the Arakanese forms of speech that it could not have been formed by an amalgamation of Burmese with an earlier dialect. Moreover the opportunities of amalgamation have been wanting as the Taungyos are surrounded by peoples of a non-Burmese origin. Whatever difficulties may be presented in classifying some of the dialects in the Burmese group, there are none in connection with Taungyo. The tribe must have been one of the Tibeto-Burman tribes which extended eastwards from the Irrawaddy valley on to the Shan plateau at a comparatively early date. Though isolated from the remainder of the Burmese race,

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of tribe ...	19,656	16,749	2,907	17·35
Number speaking tribal language.	19,317	10,543	8,774	83·22

its members were sufficiently numerous and virile to preserve their language and their independent existence. Their numbers are increasing though it is probable that the increase in the numbers speaking the tribal language is not so great as the figures would indicate.

179. Intha.—Another Burmese tribe which has separated from the main race and found a habitation in the Shan States is the Intha. Tradition asserts that its progenitors came originally from Tavoy, and their speech certainly resembles the archaic form of Burmese which has been preserved in the Arakanese and Tavoyan dialects. But the same peculiarity is observed in the speech of the Taungyos, and may only indicate the remote period of separation from the main stock in the Irrawaddy valley. It is difficult to reconcile the remarkable discrepancies in the numbers recorded as speaking the Intha dialect in 1901 and 1911. I have also some hesitation in accepting the figures shewing that the number speaking the tribal language is greater than the strength of the tribe. But throughout the western Shan States Burmese is asserting its supremacy and is slowly supplanting Shan as the vernacular of the people. It is therefore possible that the Intha variant of the Burmese speech is participating in this forward movement and progressing in advance of the numbers of the tribe itself.

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of tribe ...	52,685	50,478	2,207	4·37
Number speaking tribal language.	55,880	5,851	50,029	855·05

180. Danu.—In the census report for 1901, Mr. Lowis initiated the separation of the Danus and Danaws as distinct tribes. The Danus are a hybrid Shan-Burmese compound inhabiting the borderland between the Shan States and Upper Burma. The Danaws are a Shan-Palaung compound inhabiting the north-western portion of the Southern Shan States. The similarity of their names and the proximity of their respective locations are sufficient to account for the confusion that has arisen, and that even now is not entirely dispelled. The figures relating to the strength of the Danu tribe and to the numbers speaking the Danu language appear to defy explanation. In 1901, no persons were returned as speaking Danu, and Mr. Lowis stated that the members of the tribe seem to have lost their speech. However, in 1911, 18,694 persons were recorded as speaking Danu. The confusion can best be explained by the suggestion that in 1901 the records for the Danu and Danaw languages were amalgamated and entered as Danaw. This is supported by the statement in the margin compiled from the census records of 1901. It will be seen that, while there were 63,549 Danus, there were no persons speaking the Danu language. On the other hand, while there were only 635 Danaws, there were 18,994 persons speaking the Danaw language. Mr. Lowis in referring to the Danaws in Volume No. 4 of the Burma Ethnographical Series explains that they form an almost extinct community, and it is highly improbable that a tribe approaching extinction should be able to muster 18,994 persons speaking its tribal language. Even now it is a matter of extreme difficulty to separate the entries for the two races in the census records. Great care has been taken as the possibilities of confusion were anticipated. The marked discrepancy between the strength of the tribe (70,947) and the number speaking the tribal language (18,694) is an indication of the extent to which the tribe is being absorbed by its Burmese and Shan neighbours, especially the former. Sir George Scott doubts whether there ever was a distinct Danu race or language, and considers that the present speech is simply a Doric from of Burmese with a small admixture of foreign words.

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of tribe ...	70,947	63,549	7,398	11·64
Number speaking tribal language.	18,694	*Nil.*	18,694	...

Census 1901	Danu.	Danaw.
Strength of tribe ...	63,549	635
Number speaking tribal language.	*Nil.*	18,994

181. Hpon.—For the first time the Hpons have made an impression on the census records. They form a small tribe located on the Irrawaddy in the vicinity of the upper defile in the Myitkyina District. Linguistically their importance is quite disproportionate to their numbers. It is probable that they originated in one of the later waves of the Tibeto-Burman invasion, which spent its force before it emerged into the central basin of the Irrawaddy Valley. Unable to complete their migration, and amalgamate with the cognate tribes which preceded them, their progress was arrested by the incursions of Shan tribes. Arriving from the east the Shans appeared on their flank and intervened between them and their southern objective. For many generations they have been surrounded by Shans, and the characteristics suggesting identity of origin with the Burmese race have been almost completely submerged. A close and intimate study of the Hpon language would solve numerous interesting problems concerning the origin and early migrations of the Tibeto-Burmese. A commencement has already been made by Major Davies in his work on Yun-nan, and he has arrived at the following conclusion :—

—	1911.	1901.
Strength of tribe ...	378	*Nil.*
Number speaking tribal language.	342	*Nil.*

"An interesting fact in connection with the Tibeto-Burman languages is the very close connection that exists between the speech of the Ma-rus, Zis, La-shis A-ch'angs and P'ons on the one hand and the Burmese on the other. This is not the general likeness that the languages of the Lo-los and other Tibeto-Burman tribes have to Burmese, but is sufficiently close to warrant the belief that at some not very distant period these races spoke one language."

So important are the issues involved, and so rapidly are the original characteristics of the tribe and the language disappearing, that an immediate and thorough examination of the structure of the language and the legends and traditions of the people would be of great practical value in determining issues of a wide and far-reaching nature.

182. Tavoyan.—The Tavoyan language is the result of the admixture of the speech of Arakanese colonists with that of the Siamese inhabitants whom they found established on the coast of Tavoy. It is remarkable that, although the Tavoyan dialect is as different as Arakanese from the ordinary Burmese language, it is never separately recorded in the district in which it is spoken. The 46 persons entered as speaking Tavoyan were absent from their district, and the marked difference of their speech from that of the surrounding Burmans must have suggested the distinctive entry. The numbers given are of course no indication whatever of the number of persons using the Tavoyan form of speech. It is spoken by the majority of the inhabitants of the Tavoy District. It is a curious fact demonstrating the localised nature of the dialect, that to the south of Tavoy where it is scarcely intelligible to the ordinary Burman, there is a portion of Mergui District where almost pure Burmese is spoken.

—	1911.	1901.
Strength of race ...	523	948
Number speaking racial language.	46	5

183. Kadu.—The Kadu language is a hybrid of such doubtful ancestry that it is difficult to assign it definitely to any group in the classified scheme of languages. It contains traces of Chin, Kachin, Shan and Burmese in its composition. Mr. Houghton is of the opinion that it bears a close resemblance to the language of the Saks or the Thets, an obscure Chin tribe in Arakan. This linguistic evidence is supported by the claim of a portion of the Kadu tribes to be considered to be the remnants of the Chins. On the other hand Mr. Lowis considers that the Chin element in their composition is very faint and that they are a Shan-Burmese compound, with an appreciable mixture of Kachin besides a trace of Chin. The situation of their

—	1911.	1901.	Decrease.	
			Actual.	Per cent.
Strength of tribe ...	11,196	34,629	23,433	67·66
Number speaking tribal language.	11,069	16,300	5,231	32·09

habitat in the Katha and Upper Chindwin Districts has exposed them to linguistic influences from each of the four races mentioned. Unless a careful study is made of a language which is rapidly disappearing it is probable that the predominant element in its composition will never be determined. At present all that can be said is that it is probably the result of an amalgamation of two distinct stocks. The first is a Chin dialect with an admixture of a few Kachin elements. This was spoken by the primitive inhabitants who dwelt on the slopes of the Maing Thon mountain. The second stock is a language of the Burma group introduced by refugees from the country of Maha Myaing, one of the numerous independent tribes of the period of the early Burmese colonisation of the Irrawaddy valley. On the incorporation of Maha Myaing into the central kingdom, or more probably on its destruction by the Shans, the refugees took to the hills and coalesced with the wild tribes of Chin origin in the vicinity. On the hybrid race resulting, the pressure of the Kachin invasion from the north, and the occupation of the whole of the Northern Hill districts by the Shans, had their linguistic effects. The inclusion of the Kadu dialect in the Burma group is tentative only, until the fundamental structure of the language can be definitely determined. An interesting suggestion that the Kadus were one of the original Burmese tribes has been made by Mr. Grant-Brown in the Gazetteer of the Upper Chindwin District. The following quotation is of considerable interest:—

"The people who now talk the Kadu language live mostly in the Katha district, and those in the Upper Chindwin dwell along the border of Katha and come little into contact with the district officials. From what little is known of their language it appears to be, like the Taman, cognate to Burmese. There are traditions of their presence in the south of the district, and, as already stated, the Kadus or Kantus are mentioned in the Yazagyo chronicle as one of the peoples formerly living in the Kale valley or its neighbourhood. If this is correct there is no particular reason for supposing that they have died out there. They doubtless adopted the Burmese language and customs and call themselves Burmans. This process has occurred in the last two generations among the people who formerly spoke Ingye, which, though the Ingyes are mentioned in the *yazawin* as a separate race, appears to be merely a dialect of Kadu, and is still spoken by two aged women of Teintha and Obo, on the riverbank just above Kindat. These women say that in their childhood most of the people of these villages spoke Ingye. Ingye was also, two generations ago, the language of Ahlaw, Patha and Maw in the Kabaw valley, and of Minya on the Chindwin above Paungbyin; while Yuwa, Tatkôn, Ingôn, Wayontha and other villages are said to have once spoken it. These Ingyes appear to be the only people in the district who have no tradition of having migrated from elsewhere, and there is every reason to suppose that the language was in wide if not general use before the advent of the Shan. It is not unlikely that there was a Kadu domination just as there was afterwards a Shan and a Burman domination; and that the Kadu was the language of one of the tribes which came into Burma long ago and eventually formed what is now the Burmese people."

It is not to be expected that a language of such doubtful antecedents should shew progress in a hostile environment. At the census of 1901 the rapid extinction of the Kadu vernacular was to be foretold by the significant fact that less than half the people belonging to the tribe were entered as speaking the tribal dialect. The most powerful medium in the absorption of a weak race by its neighbours is that of language. A change of language usually precedes a change of race, and once the process is commenced, it operates with accelerated rapidity with each generation. Only 11,069 speakers of Kadu are left as compared with 16,300 in 1901, a decrease of 32 per cent. The prediction of Mr. Lowis that it will very shortly be an obsolete form of speech is approaching realization.

184. Chaungtha.—In the census report for 1901, Mr. Lowis suggested that the Chaungtha were originally a hill tribe speaking one of the tongues of the hill tracts, but that since they began to descend to the plains and came into contact with the Arakanese they have lost practically all their original vernacular. Subsequently in the volume devoted to the tribes of Burma, Mr. Lowis considers that it is doubtful whether the Chaungthas are Arakanese who have amalgamated with their Chin neighbours, or a tribe of Chins which has adopted the dress, religion and speech of the Arakanese. Local opinion is, however, strongly of that opinion, and this is supported by the traditions of the Chaungthas themselves, that the tribe is partly Arakanese and partly Talaing in its

—	1911.	1901.	Increase.	
			Actual	Per cent.
Strength of tribe ...	2,506	1,349	1,157	85·76
Number speaking tribal language.	2,515	1,350	1,165	86·37

origin. Certainly the language, both spoken and written, gives no support to the theory of a Chin origin. The written characters are modified forms of the Burmese alphabet and the vernacular spoken is a corrupted form of Arakanese. Any traces of Chin elements in the dialect are to be explained by propinquity rather than by descent. They are superficial rather than fundamental, and there need be no hesitation in assigning the Chaungtha dialect to the Burmese group of languages. There has been a large comparative increase in the number speaking the language since 1901. It is probable that the numbers now recorded approximate closely to the actual numbers using this form of speech. There is however but a vague and indefinite line of demarcation between Arakanese and Chaungtha and variations in their respective numbers may be due to difficulties in determining under which category some of the marginal members should be entered.

185. Mro or Mru.—Of this dialect, Dr. Grierson writes :—

"Mru, a dialect spoken in the Chittagong Hill Tracts, in several points agrees with Burmese, and it has therefore been classed as belonging to the Burma group. The materials which are available for this dialect are, however, so unsatisfactory that its classification can only be provisional. It is based on facts which will be mentioned later on."

—	1911.	1901.	Decrease.	
			Actual.	Per cent.
Strength of tribe ...	2,708	12,622	9 914	78·54
Number speaking tribal language.	2,718	13,414	10,696	79·73

"Mru is by no means merely a Burmese dialect and differs from this latter language in essential points. We sometimes find parallel forms and words in other groups such as the Bodo, the Naga, and, more especially, the Kuki-Chin languages. The pronoun ang, I, for instance, is found again in the Bodo languages, and en, thou, may be compared with Angami na, thou ; un, thy, etc. The suffix of the relative participle is mi in Mru, as in the Lai dialect of Chin, and so on."

"The vocabulary is, to a great extent, independent. Many words are found again in the Kuki-Chin languages, especially in Khami. The negative participle doi seems to correspond to Meithei da, etc. But many common words, such as 'belly', 'ear', 'hand', 'mouth', 'horse', 'cow', etc., must be quite differently translated in Mru and in the Kuki-Chin forms of speech. We sometimes find forms with an old appearance reminding one of Tibetan. Thus, Kin, house, Tibetan, Khyim ; Kui, dog, Tibetan khyi, Singpho gui, Burmese khwe. The greatest part of the vocabulary, however, is apparently independent or corresponding words are found now in one and now in another group of connected languages."

"Under such circumstances the classing of Mru can only be provisional until we get new and better materials. We have found it to agree with Burmese in important points, while also other languages, such as Naga, Bodo and Kuki-Chin languages, sometimes have parallel forms and words."

It would be unsafe to take the relative numbers of the speakers of the tribal language as recorded in 1901 and 1911 to be an exact representation of the rate of disintegration and decay of the language. The word Mru is used by the Arakanese in a loose sense as a generic term for all the hill tribes of their country. It is highly probable that the numbers recorded fluctuate to a certain extent with the exact meaning applied to the word. The number according to the present census corresponds very closely with the estimate made by Sir Arthur Phayre who considered that the Mru tribe in Arakan amounted to about 2,800 souls. It is probable that the number of the tribe in Burma is diminishing rather as a result of migration into Chittagong than owing to absorption by surrounding tribes. Its members have been forced westwards from the Arakan Yomas and the Kaladan valley by the pressure of the Kamis. They now occupy the hills on the border between Arakan and Chittagong, and it is probable that the westward movement may result in an increase of the number of persons speaking Mru in Chittagong, simultaneously with a decrease in the corresponding numbers in Burma.

186. Yaw.—The nominal extinction of Yaw as a separate dialect may now be considered as completely accomplished. Like the Tavoyan, it exists as a matter of hard fact. The entry of persons speaking the Yaw dialect as using the Burmese form of speech does not eliminate the differences that undoubtedly exist between the two. But it is a sure indication that the differences are being modified, and that in course of time Yaw will become but a local method of speaking Burmese. The figures recorded bear no relation to the number of Yaws living in

—	1911.	1901.
Strength of tribe ...	96	18
Number speaking tribal language.	*Nil*	5

the valley of the Yaw in the Pakôkku District and speaking the Yaw dialect, but they are eloquent as indicating the degree to which the process of absorption by the dominant race is being effected.

187. The Kuki-Chin Group of Languages.—The following extracts from Dr. Grierson's introduction to the languages of the Kuki-Chin group are essential to a correct understanding of the position of the group in the scheme of classification :—

"The territory inhabited by the Kuki-Chin tribes extends from the Naga Hills in the north down into the Sandoway District of Burma in the south ; from the Myitha river in the east, almost to the Bay of Bengal in the west. It is almost entirely filled up by hills and mountain ridges, separated by deep valleys."

"The denomination Kuki-Chin is a purely conventional one, there being no proper name comprising all these tribes. Meithei-Chin would be a better appellation, as the whole group can be subdivided into two sub-groups, the Meitheis and the various tribes which are known to us under the names of Kuki and Chin. I have, however, to avoid confusion, retained the old terminology.

"The word Kuki is, more especially, used to denote the various tribes which have successively been driven from the Lushai and Chin Hills into the surrounding country to the north and west. The tribes which first emigrated from Lushai land into Cachar, the Rangkhols and Betes with their offshoots, are generally distinguished as old Kuki ; while it has become customary to use the term new Kuki to denote the Thados, Jangshens, and their offshoots. These latter tribes had driven the so-called old Kukis out of Lushai land, and were afterwards themselves driven out by the Lushais.

"The terms old Kuki and New Kuki are apt to convey the idea that the tribes so denoted are closely related to each other. But that is not the case. Not only do their customs and institutions differ considerably, but their languages are separated by a large group of dialects in the Lushai and Chin Hills. The so-called New Kukis are, so far as we can see, a Chin tribe, most closely related to the inhabitants of the Northern Chin Hills, while the Old Kukis are related to tribes more to the south. I have therefore abandoned the use of the title New Kuki, but have retained the name Old Kuki for want of a better word to denote a language which we know in many dialects, such as Rangkhol, Bete, Aimol, Hallam and others.

"Chin is a Burmese word used to denote the various hill tribes living in the country between Burma and the provinces of Assam and Bengal. It is written and dialectically pronounced Khyang. The name is not used by the tribes themselves, who use titles such as Zo or Yo and Sho.

"The history of the Kuki-Chin tribes is only known from comparatively modern times. With the exception of the Meitheis, who have been settled in the Manipur valley for more than a thousand years, all the Kuki-Chin tribes appear to have lived in a nomadic state for some centuries. It would seem that they all settled in the Lushai and Chin Hills some time during the last two centuries, and this country may be considered as the place where their languages have developed their chief characteristics.

"The Kuki-Chin languages belong to the Burmese branch of the Tibeto-Burman family. A comparison of the Kuki-Chin numerals with those occurring in Burmese and Tibetan will show this.

"The comparison of the numerals shows that the Kuki-Chin languages are closer akin to spoken than to written Burmese. This also proves to be the case in other respects. Thus we find the same law prevailing in spoken Burmese and in Meithei, according to which initial hard and soft consonants are interchanged in such a way that the soft consonants are used after prefixed words ending in vowels and nasals, and the hard ones after consonants.

"Our information with regard to tones in the Kuki-Chin languages is very defective. Sho is said to possess three tones—the short accute, the heavy grave, and the rising tones ; two tones, the light and heavy one, are mentioned in Khami ; and the abrupt shortening of a syllable in Lushai seems to indicate the existence of the short abrupt in that language. The description of the tones of Burmese, which latter have not, however, as yet been adequately described ; but so far as our information goes, the tones seem to be the same in Burmese and in Kuki-Chin.

"These facts point to the conclusion that the Kuki-Chin languages are derived from a language connected with Burmese. It will also be seen that Meithei in some respects agrees with written Burmese as against the other languages of the group.

"The Kuki-Chin languages are not, however, simply Burmese dialects. The language from which they are descended must, in many details, have had a more antique form than Burmese, and sometimes agreed with Tibetan.

"The Kuki-Chin languages must, therefore, be classed as intermediate between Burmese and Tibetan, though much more closely connected with the former than with the latter.

"The Kuki-Chin languages are also closely related to the Kachin group. This is especially so with regard to Meithei, and the question will therefore be taken up later on, in connection with that language. We may, however, here anticipate the result, and define the position of the Kuki-Chin group within the Tibeto-Burman family as follows :—

"The Kuki-Chin languages are closely connected with all the surrounding groups of the Tibeto-Burman family, the Bodo and Naga languages to the north, Kachin to the east, and Burmese to the east and south. More particularly, they form a link which connects

Burmese with the Bodo and Naga languages, having, especially in the north, many relations with the Kachin dialects, which, in their turn, form another chain between Tibetan and Burmese.

"The Kuki-Chin languages must be subdivided in two branches, Meithei and the Kuki-Chin languages proper."

I. Meithei.
II. The Kuki-Chin Languages Proper.

"All the other dialects of the group in question (*i. e.* the non-Meithei dialects of the Kuki-Chin Group) are evidently derived from one form of speech, which might be styled the Old Chin language, its home being probably the Chin and Lushai Hills. The dialects derived from this original language can be divided into the following sub-groups :—

(i) Northern Chin.
(ii) Central Chin.
(iii) Old Kuki.
(iv) Southern Chin

188. Extended, though still incomplete, record of the Chin language.—The record of the Chin tribes in the past has suffered greatly from the remote and inaccessible localities in which they live. In the regularly administered districts they occupy the extreme hilly borders where administrative control is scarcely felt. In the specially administered territories the degree of control exercised is but slight, and at the time of the census of 1901 administration had been but recently established. It was indeed a matter of grave consideration whether a census enumeration would be possible outside the limits of the regular districts. Gradually, as administrative control has strengthened the possibilities of a more accurate and comprehensive enumeration have been enhanced. The increase in the number of persons using Chin forms of speech is therefore due partly to an extension of census possibilities. The extension of language classification to the Pakôkku Hill Tracts is responsible for an increase of 26,051 Chin-speaking persons out of a total increase of 85,788. Large tracts in the administrative area of the Chin Hills which were necessarily only superficially touched in 1901 have now been closely enumerated. In the regularly administered districts improved records have been possible with increased control. But even yet, no complete statement of the Chin population within the province of Burma can be made. Included nominally within the district of Northern Arakan is an area of 3,723 square miles which remains unadministered and over which no census or estimate has been attempted. Until this area is brought within administrative control, and a census thereby rendered possible, the record of the numbers of the Chin-speaking pouplation must remain incomplete.

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Strength of race ...	306,486	214,607	91,879	42·81
Number speaking racial languages.	295,283	209,495	85,788	40·95

189. Classification Difficulties.—No group of languages presents greater difficulties of classification than the Chin. It is unfortunate that Dr. Grierson and Mr. Lowis, approaching the subject from different points of view, the linguistic and the administrative, have adopted rather conflicting lines of division of the component parts. While both adopt the geographical division of northern, central and southern, Dr. Grierson puts the Chinbôks, the Yindus and the Khamis in the southern group, whereas Mr. Lowis places them among the central group. But any such geographical divisions are tentative devices, adopted until a full genealogical classification is possible. Despite the researches of Captain Rundall, Major Newland, Major Hughes and Mr. Houghton into specific dialects and restricted branches of the main group, the warnings as to the lack of systematic knowledge of the dialects of the province, printed at the head of this chapter, apply with special force to the Chin languages. Most of the Chin dialects remain unstudied, or in a stage rendering philological classification impossible. Of the Chin forms of speech, even more than of the other hill dialects of Burma, it can be affirmed that a linguistic survey still awaits the completion of linguistic exploration. Colonel Macnabb when Political Officer, Chin Hills, was of the opinion that the curse of the Tower of Babel had fallen heavily upon the inhabitants of Chinland, that every tribe had its language and every village its dialect, that few Chins pronounce a word exactly the same twice running, and that Chins even from the same village pronounce many words widely differently. In his Handbook of the Language of the Lais, Major Newland

states that the Chin language, like all purely colloquial languages, is constantly changing, and that no two villages and even two Chins pronounce the same word exactly alike. The wide gulf existing between theoretical classification of the Chin dialects and their records in the census schedules is indicated by Mr. Lowis in paragraph 121 of the Census Report of 1901, where after describing the various dialects of the Northern and Central Chins, he states that such forms of speech were not separately returned at the 1901 Census, but that they had been lumped together under the general head of Chin. This record of dialects of great diversity under a common generic term has been continued at the census of 1911. Indeed it has taken place on a much larger scale. Out of a total of 295,283 users of the Chin forms of speech 233,661 persons were returned simply as speakers of Chin. The twelve dialects appearing in the census records must necessarily be but a fraction of the total number, while the number of speakers of each separate dialect is in most cases much greater than those recorded. It is not a matter for surprise that with dialects inadequately classified, many of them unstudied, varying from individual to individual and from village to village by almost imperceptible shades into a stage of mutual intelligibility, local officers should avoid the difficulties of linguistic classification by a purely general entry. What was required before the enumeration commenced was a comprehensive list of the dialects sufficiently distinctive to necessitate a distinctive record in the census records. The basis for such a list exists in the scheme of Dr. Grierson on pages 2 and 3 of Volume III, Part III, of the Linguistic Survey of India. But this scheme was prepared for a survey from which Burma was excluded, and the lists of dialects of Chin spoken in Burma are tentative and incomplete. The fact that the Linguistic Survey did not extend to Burma has prevented the distribution of the volumes containing the results of its labours to local officers in the province, who have been unaware of the extent to which in the course of the survey of the languages spoken in India, those spoken in Burma had been examined and classified. Consequently the assistance they would have gained from its conclusions, however tentative they may be, was wanting.

Kuki-Chin Languages Proper.		
Sub-group.	Dialect.	Number of speakers.
Old Kuki ...	Kyaw (Chaw)	249
Northern Chin ...	Siyin ...	151
Central Chin ...	Baungshe ...	1,924
	Chin ...	233,661
	Chinbôk ...	18,179
	Chinbôn ...	1,600
	Yindu ...	4,348
Southern Chin	Taungtha ...	17,244
	That ...	80
	Anu ...	474
	Khami ...	16,431
	Daingnet ...	919
	M'hang ...	23
	Total ...	295,283

190. Combination of Language and Tribal Figures.—It is possible by combining the figures for Imperial Tables X and XIII, that is, by supplementing the deficiencies of linguistic classification by assuming that the tribal language is spoken by the members of the tribe as recorded in the columns for caste, tribe or race, to obtain a closer classification of the Chin languages than is possible from the language records alone. By this method the number of persons speaking unspecified Chin is reduced from 233,661 to 124,299, and the percentage speaking classified dialects is increased from 21 per cent. to 57 per cent. of the whole. The number of persons speaking the tribal language may not coincide with the number of the tribe, and consequently absolute accuracy cannot be claimed for this method of combination of the results of two distinct classes of returns. But the degree of accuracy is far greater than that obtained by trusting to the language records only. By confining the analysis to the latter, no estimate of the number of persons using the forms of speech belonging to the recognized groups of Chin dialects can be obtained. By the method of combination of tribal and linguistic returns, an exceedingly close approximation can be made to the number of speakers of the northern and central groups of Chin dialects, and the speakers of the unclassified forms of speech can with comparatively few exceptions be entered as belonging to the southern group. In the following analysis, the figures for language will consequently be supplemented by the figures for the tribe wherever the former are defective. The scheme of classification outlined by Dr. Grierson will be adopted. Where no linguistic comparisons of the

Chin Languages.		
—	From language records only.	From combined language and racial records.
Classed ...	61,622	170,984
Unclassed	233,661	124,299
Total ...	295,283	295,283

dialects have been effected, tribes closely associated with those mentioned in Dr. Grierson's scheme will be placed in the same group. The result will be tentative and liable to much subsequent modification, but it will form a definite scheme which by criticism, expansion and correction may be transformed into a much needed list of the Chin dialects as spoken in Burma.

191. Kyaw.—The Kyaw or Chaw dialect is the only representative of the Old Kuki dialects found in Burma. Very little is known of the dialect, but so far as it has been studied it is a pure Tibeto-Burman form of speech. Dr. Grierson writes concerning the materials available for the classification of the language :—

—	1911.	1901.
Strength of tribe ...	249	215
Number speaking tribal language.	249	215

"None of these facts are conclusive, and the materials which are available are too scanty for definitely fixing the position of the Chaw dialect. But it seems probable that there is a close relation between Chaw on one side and Rangkhol, Hallam, Kom, Langrong, etc., on the other. The Chaws are believed to have been transferred to their present home in modern times, and they have probably formerly been settled farther to the north, in the neighbourhood of the tribe mentioned above."

192. Dialects of the Northern Chin Group.—Of the six dialects belonging to this group, three only, the Thado, Sokte and the Siyin, are entered in Dr. Grierson's classification. The members of the Yo tribe have affinities with the Thados but they have now been assimilated with the Soktes by whom they were conquered. The Kanhows are a clan of the Soktes, named after a chief who adopted an aggressive policy during his father's life time and separated the tribe into two communities. The Soktes, the Kanhows and the Yos are practically one people. But few Nwitis are left in the Chin Hills and those who remain are subordinate to the Sokte chief. Only the Thado and the Siyin dialects have been the subject of linguistic investigation, but their association with the remaining tribes is sufficiently close for their languages to be tentatively placed in the same group until further researches render a more correct linguistic classification possible.

Northern Chin Dialects.

Dialects.	Number of speakers.
Thado ...	1,009
Yo	3,918
Nwiti	832
Sokte	11,368
Kanhow ...	10,882
Siyin	3,127
Total ...	31,136

193. Dialects of the Central Chin Group.—The first of the five dialects of this group are associated with Tashon, the leading dialect of the group. No attempt at a linguistic examination of any of them except the Zahoe or Yahow is made in Volume III, Part III, of the Linguistic Survey of India, and it is stated that there is no material for deciding whether the Zahoes of the Lushai Hills speak the same language as those of the Chin Hills. To the south of the Tashons, the Baungshe, Lai or Haka tribes are to be found. Owing to the investigations of Major Newland more is known of the Lai or Baungshe dialect than of any other language of the Chin group. The Klangs or Klang-Klang and the Yokwas are associated with the Lais by intermarriage. The Shintaungs, Laiyo and Yotuns are tribes living in the south of the Chin Hills administrative area. They have all largely intermarried with each other and with the neighbouring Lai or Baungshe tribes. The following quotation from the introduction to the Handbook of the Language of the Lais will indicate the area over which the languages of the Central Chin group are spoken in Burma and the degree of association between the two most important constituent dialects :—

Central Chin Dialects.

Dialects.	Number of speakers.
Tashon ...	10,606
Yahow ...	13,568
Ngawn ...	3,831
Whenoh ...	3,383
Kwangli ...	3,701
Baungshe (or Lai)	12,416
Klang ...	6,926
Yokwa ...	2,849
Shintaung ...	7,918
Laiyo ...	6,403
Yotun ...	8,949
Total ..	80,550

"The Lais are the great tribe and its offshoots that occupy the Chin Hills between the Tashons or Shunklas in the north and the Zoes in the south. They extend from the Burma frontier on the east, right away to the Lushai country on the west.

"The language of these people is the Lai language, called by the Burmese Baungshe, and by which term we have hitherto known it. Dialects of it are spoken by all the surrounding tribes, but nearly all understand the Lai tongue, so that a knowledge of it will carry one over a vast tract of the Chin Hills. The Tashons also understand it, from whose speech it is not very radically different.

"We have been in the habit of calling these people the Baungshes, but it is a term unknown to them. They call themselves, as stated above, the Lais. Baungshe is a Burmese term, applied by the Burmese to these hill-men in reference to the way in which they wear their hair done up in a knot on the front of their heads."

194. Unclassed Chin and dialects of the Southern Group.—In his classification of the languages of the Kuki-Chin group, Dr. Grierson places Chin under the designation of Khyang or Sho, as belonging to the southern group. There is no doubt that the great majority of the 124,299 persons speaking unclassed Chin do belong to the southern group, but a small proportion are speakers of the dialects of the northern and central groups. The majority of these unspecified Chins have been recorded in the borderland between the Arakan division on the west and the Magwe and Pegu administrative divisions on the east. Mr. Houghton terms the southern Chins, to be found in the borders of the regular districts of the province, tame Chins, to distinguish them from the wild Chins to be found in the Specially Administered Territories. The tame Chins are tribes which formerly inhabited the Lushai Hills and the country now forming the administrative territories of the Chin Hills and the Pakôkku Hill Tracts, and which have been slowly forced southwards at no very distant period by pressure from the less civilized Chins to the north. The Chinbôk, Chinbôn and Yindu dialects have been recorded entirely in the Pakokku Hill Tracts. But little is known of the vocabulary and structure of the two latter. The strength of the Khami, Kwemi or Kami tribe and the numbers speaking its tribal language show a marked decrease. This is however only nominal, there being a strong tendency among them to claim to be pure Chins, and to give their race and language as Chin. In the Akyab district this tendency is particularly marked, only 2,786 having been recorded as compared with 11,195 at the census of 1901. The further south the tribe is found the less do its members maintain their distinctive dress and dialect. The Anus are an obscure tribe in Northern Arakan whose dialect has not been studied sufficiently to enable a more definite statement to be made than that it probably belongs to the Southern Chin group. The figures suggest that the tribe as a separate entity is disappearing, but it is possible that many of its members may be existing within unadministered territory. The Thet or That or Sak dialect has all but disappeared. The main interest in the language is historical, the Sak being one of the main tribes which once fought for supremacy in the Irrawaddy valley. They were driven into the hills after their defeat by the Talaings. It is highly questionable whether the present remnant has any connection with their more famous namesakes. Nor has it been finally determined whether the basis of their dialect is Chin or Naga or Kachin. The very large increase in the number of Taungthas recorded over the figures for 1901 is due to a very loose application of the term to various tribes. In the Pakôkku District it is used to denote a tribe of Chin antecedents who have retained their Chin language but have intermarried among the Burmese and adopted Buddhism as their religion. On the Arakan side of the hills it is applied much more loosely, including several Chin tribes who have adopted the name as their distinguishing designation. The present figures include both classes of Taungthas. To what extent they are related and can be included in one linguistic category is a question not at present determined.

Dialect.	Number of speakers.
Chin ...	124,299
Chinbôk ...	18,179
Chinbôn ...	1,600
Yindu ...	4,348
Khami ...	16,431
Anu ...	474
That ...	80
Taungtha ...	17,244
Daingnet .	919
M'hang ...	23
Total ...	183,597

Khami Dialect.	1911.	1901.
Strength of tribe ...	16,372	24,937
Number speaking tribal language.	16,431	24,389

Anu Dialect.	1911.	1901.
Strength of tribe ...	479	588
Number speaking tribal language.	474	775

Thet or That.	1911.	1901.
Strength of tribe ...	79	232
Number speaking tribal language.	80	67

Taungtha.	1911.	1901.
Strength of tribe ...	17,462	5,704
Number speaking tribal language.	17,244	4,578

An illustration of the gradual extension of the census enumeration is the inclusion for the first time of 23 individuals of the M'hang tribe in the census records. They are a branch of the Lemro Chins and live to the east of the Northern Arakan District, principally within the unadministered territory. In all probability the dialect is one of the Southern Chin sub-group.

M'hang.	1911.
Strength of tribe ...	23
Number speaking tribal language.	23

195. Daingnet.—The Daingnet tribe say that they originally lived near the Kantha Chaung in the Chittagong district and that they migrated into Arakan over 50 years ago. The dialect is probably of Tibeto-Burman origin. In the census report of 1901 Mr. Lowis, from an examination of some specimens of the language supplied by the Deputy Commissioner of Akyab, came to the conclusion that it must be excluded from the Indo-Chinese family altogether. Mr. Page, Assistant Commissioner of Buthidaung, has written a short note to the effect that the Daingnets have a distinct language of their own belonging to the Tibeto-Chinese family. The following quotation indicates how he arrived at this conclusion :—

"A study of the list of words and phrases appended will show that there are a larger number of words which bear no resemblance whatever to Arakanese or Chittagonian. Moreover, these distinctly Daingnet words are still tonal in character thus showing the original language to be of Mongolian origin.

"My principal informant was an educated Daingnet who could read and write Burmese and he was very insistent upon the point that the word for a pot which I have transliterated as kum could not be represented by the Burmese. Though he could not express the difference in words it was quite clear that his difficulty lay in not being able to represent the tone of the word in his language by a Burmese equivalent.

"The conclusion to which my enquiries seem to lead is that the Daingnets have a distinct language of their own belonging to the Tibeto-Chinese family, but that it has been largely modified especially in the words for common objects by the substitution of Chittagonian and, in a lesser degree, of Arakanese words."

The large decrease in numbers since 1901 indicates that both the tribe and the dialect are being submerged.

196. Kachin-Burma Hybrids.—A group of hybrid dialects spoken in the extreme north of the province and tentatively classed as Kachin-Burma hybrids is, linguistically and ethnographically, of far greater importance than their insignificant numbers would suggest. Although the extension of census limits has brought a much larger number of the members of the corresponding tribes into the range of observation, the number of speakers of the tribal dialects shew a marked decrease. It is only possible to speak with certainty of those portions of the tribes within the administrative area of the province, but judging from the results it is clear that the dialects are rapidly being submerged. The necessity for a complete study of their vocabularies and structure before they are finally lost is seen from the following opinion of Major Davies as to the origin of the Burmese race :—

Number of speakers of Kachin-Burma Hybrid Dialects.		
——	1911.	1901.
Szi (Tsi)	205	756
Lashi	...	84
Maru	209	151
Maingtha	316	465
Total	730	1,456

Kachin-Burma Hybrids.	1911.	1901.
Strength of tribes ...	10,167	1,255
Number speaking tribal dialects.	730	1,456

"This fact may I think throw some light on the disputed point as to how the Burmese reached their present country. For beginning with the P'ons who live on the Irrawaddy just north of Bhamo we have a regular line of Zis, Ma-rus, and La-shis leading up to the eastern branch of the Irrawaddy. Above the confluence, the eastern branch is in fact almost entirely inhabited for a considerable distance by Ma-rus and La-shis, while on the western branch these tribes do not, I believe, exist. The inference is that the Burmese came down the eastern branch of the Irrawaddy and that these tribes are stragglers left behind in the southerly migration of the main body of the race."

A sketch map showing the distribution of the tribes of this group will be found in the margin of paragraph 292 of Chapter XI of this volume.

197. Maru.—The Maru tribe is the second link in the chain connecting the

Burmese race with their original habitat, the first link being the Hpons located a little lower down in the valley of the Irrawaddy. The great majority of the members of the tribe live outside the regularly administered area of the province. They extend northwards from the confluence of the two branches of the Irrawaddy along the valley of the eastern branch. Their original migration southwards was impeded by the Shan invasion from the east, and subsequently they have been subjected to pressure from the Kachins on the west. The effect of contact with these stronger and more virile races has been to transform their racial characteristics and largely to submerge their original language. Of the numbers recording themselves as members of this tribe only a trifling proportion gave Maru as the language spoken, the majority speaking Kachin. Even now, in dress and customs the Marus are hardly distinguishable from the Kachins, and it is but a question of time until all traces of the original language are obliterated. The Marus may be termed the parent tribe of this group, the Lashis, Szis and Maingthas being tribes of similar origin and speaking similar dialects, which have developed differently under different conditions.

Maru.	1911.	1901.
Strength of tribe ...	3,855	149
Number speaking tribal language.	209	151

198. Lashi.—The disintegration of the Lashi dialect has proceeded to a further stage even than that of Maru. Despite an increase of nearly 3,000 members, included in the census records owing to the extension of the census area of the province, not a single person using Lashi as a form of speech was entered. Their absorption by the surrounding Kachins seems to be almost complete. Their situation to the west of the Marus has rendered them particularly liable to Kachin influence, to which they have readily succumbed. It is possible that the tribal language may be spoken in the upper regions of the eastern branch of the Irrawaddy beyond the administrative frontier, but so far as the area covered by the census enumeration was concerned the dialect may be considered to be extinct.

Lashi.	1911.	1901.
Strength of tribe ...	2,908	40
Number speaking tribal language.	...	84

199. Szi (Tsi).—The Szi are a tribe similar to the Marus and the Lashis, but whose amalgamation with the Lepai tribe of the Kachins is recognized. Despite the amalgamation the tribal dialect has not quite disappeared but it is spoken by a very small proportion of the members of the tribe that came within the area of the census enumeration. The tribe extends eastwards into Chinese territory and northwards beyond the administrative frontier of Burma.

Szi.	1911.	1901.
Strength of tribe ...	3,003	317
Number speaking tribal language.	205	756

200. Maingtha.—The entry of the Maingtha dialect into the group of Kachin-Burma hybrid languages is highly questionable. Its basis is undoubtedly Burmese, but the element of Shan in its composition is greater than that of Kachin. The exact position of the tribe and dialect in any scheme of classification is doubtful. Mr. Lowis is of the opinion that the Maingtha are a tribe of Chinese Shans. On the contrary, Major Davies, who describes them under their own designation, the A-chang, writes :—

—	1911.	1901.
Strength of tribe ...	401	749
Number speaking tribal language.	316	465

"To such an extent have the A-ch'angs adopted the dress, customs, and Buddhism of the Shans, though on closer questioning they will admit that they really belong to a distinct race. In feature they differ considerably from the Shans, and their language is totally distinct from Shan and very closely connected with the Zi, La-shi, and Ma-ru languages. There are many of the Zi tribe living not far off in the hills, and it seems probable that the A-ch'angs may really be Zis who have settled in a valley and taken to more civilized ways. That they are not Shans seems certain. The chiefs of both Ho-hsa and La-sha were agreed on this point."

In the absence of a thorough linguistic survey of the frontier languages any classification of such doubtful dialects must be considered as tentative. The close affinity of the Maingtha form of speech with that of the Szi, Lashi and Maru

dialects, and the probability of an intimate connection with Szi tribe, suggests that they should be grouped together until a more authoritative classification is prescribed. The headquarters of the tribe is a small valley on the Taiping river on the Chinese side of the frontier.

201. The Lolo Group.—The Lolo group of languages is identical with the Lisaw sub-group of the census of 1901. The extension of census limits on the northern and north-eastern borders of the province has introduced a new dialect, Lolo, into the group, and has caused a considerable increase in the number of speakers of the Lisu or Lisaw speech. The dialects are so similar in their structure and vocabularies that it is probable that they are developments of some Lolo tongue that was once spoken throughout the hill regions of Yun-nan. Their affinities with Burmese are sufficient to indicate that in their origin they were closely allied. Yet they are sufficiently distinct to be excluded from the Burmese group. Nor can they be considered hybrid Burmese dialects. They are most probably the resultant of the most eastern branch of the Tibeto-Burmese invasion, which diverged into Yun-nan by the valleys of the Salween and the Mekong instead of continuing towards the valley of the Irrawaddy. In the mountain ranges of Yun-nan the immigrants developed into a numerous and widely spread tribe with a distinctive language of their own. On their fringe, contact with other tribes and races produced modifications, of which the dialects now under consideration are the most important. They are spoken along the entire length of north-eastern border of the province from Myitkyina to Karenni. A sketch map of their distribution is given in the margin to paragraph 295 of Chapter XI of this volume.

——	1911.	1901.
Strength of tribes ...	67,418	47,618
Number speaking tribal dialects.	65,548	47,250

Dialects of the Lolo Group.	Number of speakers.
Lisu (Lisaw) ...	9,066
Lahu (Muhso) ...	18,500
Kwi (Lahu Hsi) ...	3,924
Akha (Kaw) ...	32,925
Ako ...	794
Lolo (Myen) ...	339
Total ...	65,548

202. Lisu.—Lisu, Lisaw or Lihsaw is the language of a widely scattered tribe having its headquarters in the Salween valley to the east of the Bhamo and Myitkyina districts. It is probable that at one time its members formed a large tribe extending between the Irrawaddy and Mekong valleys as far south as the Shweli River. They have, however, largely succumbed to Chinese influence, intermarrying with the Chinese and adopting the Chinese language and speech very readily. The area over which they retain their own customs and language is most restricted. The large increase in the numbers recorded as using the Lisu form of speech is due to the extension of the limits of census enumeration to areas where previously only an estimate had been possible.

Lisu.	1911.	1901.
Strength of tribe ...	8,487	1,427
Number speaking tribal language.	9,066	1,605

203. Lahu.—The Lahu or Muhso tribe is a branch of the main stream of the Lolo migration which advanced southwards by the Mekong valley, while the Lisus were proceeding down the valley of the Salween. Their lines of divergence began somewhere to the north of the border between China and the Northern Shan States. They are an aggressive race and have extended southwards much beyond the southern limit of the Lisus, penetrating through the Wa country into the Shan State of Kēngtūng. Their dialect though distinctly Lolo in structure bears traces of Wa influence, and it must have been considerably modified in the course of a lengthy period of residence in the locality occupied by the Was.

Lahu.	1911.	1901.
Strength of tribe ...	18,103	15,774
Number speaking tribal language.	18,500	16,732

204. Kwi.—The Kwis (or Lahu-Hsi) are the most southern branch of the Lahu tribe. Their dialect, a modified form of Lahu, has now appeared for the first time in the census returns, though their race was entered in 1901 for 2,882 persons.

Kwi.	1911.	1901.
Strength of tribe ...	3,189	2,882
Number speaking tribal language.	3,924	...

205. Akha.—The Akha dialect is spoken by the Akhas or Kaws, a tribe inhabiting the eastern portion of Kēngtūng, but also extending into the adjacent French Lao States and into southern Yun-nan. Despite intermarriage with the Chinese to a remarkable extent, they manage to preserve their language and to increase the number of its speakers. They form by far the largest tribe within Burmese administered territory speaking a Lolo dialect.

Akha.	1911.	1901.
Strength of tribe ...	33,181	26,023
Number speaking tribal language.	32,925	27,751

206. Akò.—The Akò or Akho dialect is a hybrid spoken by a tribe of the same name. The tribe is probably the resultant of an intermixture of members of the Akha tribe with immigrants from China. The small number recorded as speaking the tribal language is largely due to a gradual assimilation with the Chinese. According to their traditions they originally came from China and spoke Chinese and there is a tendency to revert to the original language. While the number of the members of the tribe is increasing by immigration from Southern Yun-nan the dialect is decaying, being gradually supplanted by Chinese and to a less extent by the Akha dialect of the parent tribe.

Ako.	1911.	1901.
Strength of tribe ...	4,119	1,506
Number speaking tribal language.	794	1,162

207. Lolo.—The extension of the census limits to include portions of the Northern Shan States not hitherto brought within the scope of the enumeration, has brought a few members of the Lolo tribe into the census statistics. The tribe extends over the whole of the hill ranges of Yun-nan, a small number only having crossed the frontier into Burma. Major Davies is of the opinion that the language will die out in a few generations, owing to the spread of Chinese influence. The men of the tribe adopt the dress and language of the Chinese, the women usually retaining their tribal characteristics. On the whole, though large numbers of the tribe still adhere to their language and customs the process of absorption is rapidly proceeding.

Lolo.	1911.
Strength of tribe ...	339
Number speaking tribal language.	339

208. Kachin.—No attempt has been made to classify the Kachin language into its three main dialects, the northern, the Kaori, and southern Kachin. Where any attempt at distinction of dialect was attempted, the number of artificial and arbitrary divisions became so great that the attempt had to be abandoned. As to the general position of Kachin in the scheme of linguistic classification Dr. Grierson writes :—

Kachin.	1911.	1901.
Strength of race ...	162,368	64,405
Number speaking tribal language.	169,414	65,570

"The Kachin dialects have many points of resemblance with the Kuki-Chin languages, especially Meithei, and with the Naga and Bodo languages. Thus the numerals and personal pronouns correspond to forms found in those dialects."

"Similar forms occur in many other languages of the groups in question. With regard to the vocabulary there are many points of correspondence. Mr. Gait, in the Assam Census Report, compared 22 common Singpho words with the corresponding words in other Tibeto-Assamese languages, and found that half of them were identical with the forms occurring in some of the dialects compared. A greater number of words have been compared in the introduction to the Kuki-Chin group, with the same result. There are, however, so many points of difference that the Kachin dialects must be considered as quite independent forms of speech."

"A comparison of the grammatical features of Kachin and other Tibeto-Burman languages shows the same relation. The general tendencies and the whole structure is identical in all. We even find the same prefixes and suffixes used in Kachin and in other Tibeto-Burman dialects."

"But there are also many points of difference. More especially, Kachin has developed a copious system of verbal suffixes, which is more akin to Burmese than to the dialects mentioned above. It also agrees with Burmese in the use of the prefix a to form nouns and adjectives, though the same prefix is perhaps also used in the Naga and Kuki languages. It is of importance that Kachin uses a prefixed negative in the Burmese way. Ao, Lhota, and Tamlu, however, have the same principle for the formation of the negative verb."

"In one essential point, Kachin differs from Burmese and from the neighbouring dialects in the west. The Kachin system of tones is quite peculiar to itself. The best description of the Kachin tones is given by the Reverend O. Hanson. He mentions five, while the Reverend J. N. Cushing knows of six. He describes them as follows:—

"The first tone is the natural pitch of the voice, with a slight rising inflection at the end. It may be called the natural tone."
"The second is a bass tone; it may be called the grave tone."
"The third is a slightly higher tone than the second, being pronounced with an even prolonged sound; it may be called the rising tone."
"The fourth tone is very short and abrupt; it may be called the abrupt tone."
"The fifth tone is somewhat higher than the third and is uttered with more emphasis; it may be called the emphatic tone".

"This richness in tones shows that Kachin is more closely connected with Tibetan, and that it must be classed as a link between that language in the north, the Naga and Kuki-Chin languages in the west, and Burmese in the south."

The extremely large increase in the numbers recorded as speaking Kachin is chiefly due to the extension of census limits and to the introduction of linguistic records where none were previously attempted. The estimated areas of the Myitkyina District in the census of 1901 have disappeared, and an enumeration has been effected, thereby enabling a linguistic record where none was possible previously. Again, the Kachin districts of North Hsenwi in the Northern Shan States have been for the first time brought under a regular census enumeration. But, simultaneously with the expansion of census limits northward, there is a decided movement of the Kachins southwards from unadministered into administered territory and from the Chinese side to the British side of the border. Moreover there is a strong tendency for the Kachins to absorb minor tribes such as those of the group of Kachin-Burma hybrids, and even isolated communities of Chins, Shans and Burmans. It is difficult to estimate the respective strengths of the threefold factors of the progress made, extension of census limits northwards, migration of Kachins southwards into administered territory, and absorption of the members of neighbouring tribes. Indeed the figures themselves must not be considered as possessing a high degree of accuracy. They have been recorded under great difficulties, over areas where administrative control is of the slightest, where efficient enumerators are scarce and supervision difficult, and where the northern limit of the area of enumeration is formed by the irrelevant line which for the time being formed the administrative boundary.

THE SIAMESE-CHINESE SUB-FAMILY.

209. The Tai Language Group.—There is no doubt that there has been in the past a considerable amount of over-classification in the dialects belonging to the Tai or Shan language group. Local and immaterial differences have been magnified into essential and fundamental distinctions. Elaborate geographical classifications for the purpose of grouping the most widely spread language of the Indo-Chinese peninsular have been attempted, and after several modifications have been finally abandoned. External differences of designation and superficial differences of tone or accent have been regarded as determining factors in the absence of conclusions based on the study of their internal structure. In the census report of 1901, Mr. Lowis after a careful consideration of the material available came to the conclusion that it was best to sink the difference between the northern and southern Burmese Shans and to speak of all the Tai forms of speech occurring in Burma and the Shan States to the west of the Salween (except Chinese-Shan and Khamti) as Burmese Shan. There is no doubt that the Salween is the only true line of demarcation between the various forms of speech belonging to the Tai group. Considering only those possessing a separate written character, the Tai dialects of Assam, Khamti, Chinese Shan and Burmese Shan are spoken to the west of the Salween, and Lu, Hkun, Lao and Siamese to the east of that river. As Lu and Hkun are practically two branches of the same form of speech, the eight divisions are reduced to seven. But for the fact that the tones of the same word in these seven dialects or languages do not correspond, the members of any of these eight groups might be able with little difficulty to make themselves intelligible to each of the others. There is thus a remarkable linguistic uniformity throughout the wide area over which the Tai dialects are spoken. Apart from the important distinctions to be noted east and west of the Salween, all other differences are of a minor character.

210. Comparative Figures for the Tai Languages.—The comparison of the figures for 1911 and 1901 is disturbed by the extension of census limits to include Kokang and West Manglün and also by the linguistic classification of the inhabitants of the Kachin Districts of North Hsenwi. The latter extension has but a slight influence on the total figures, while the former is responsible for an increase of 16,274 both in the strength of the Tai races and in the number speaking the Tai language. Allowing for this disturbance the racial increase has been about 9 per cent. for the decade. The larger increase among the users of Tai forms of speech may be attributed to several causes. The Tai Loi or Hill Shans have now been returned under their correct tribal designation, and many of them though speaking Shan belong to the Wa tribe. They would thus tend to increase the number of Shan speakers to a much greater degree than they would increase the strength of the Shan race. Moreover the Shans though themselves in danger of being absorbed when they come in contact with such virile races as the Chinese, the Kachins and the Burmese are themselves absorptive with respect to the minor tribes of the Lolo group and such hybrid tribes as the Danus, Danaws and the Maingthas. Despite the greater increase both absolutely and proportionately in the number of speakers of Tai languages, they still number 28,045 less than the total strength of the Tai race.

—	1911.	1901.	Increase.
Strength of Tai races ...	996,420	893,428	102,992
Number speaking Tai languages.	968,375	844,306	124,069

211. Analysis of the Tai Languages recorded.—The record of the languages of the Tai group has not proceeded on the lines of the seven recognized main divisions. Two of these divisions, the Tai dialects of Assam and the Lao language of the French States, have no representatives in Burma. Of the remaining five, Khamti, Burmese Shan and Chinese Shan have been returned as Shan without any further distinctive record. Lu and Hkun have been entered separately, though the distinction between them is largely nominal. Siamese has been separately recorded in one district only, that of Mergui, where the large indigenous Siamese population has forced a recognition of their separate existence. In the remaining districts of the Tenasserim Division, the Siamese are locally known as Shans in both the Siamese and Burmese vernaculars, and they have been so recorded. An insignificant number of speakers of Daye, a hybrid dialect, has also been returned. The resultant figures do not therefore accurately represent any logical or linguistic classification. The number of Shan speakers has been unduly increased by the Khamtis of the Upper Chindwin District, the Chinese Shans of the north-eastern portion of the province, and a very large proportion of the Siamese resident in Burma.

Linguistic Division.	Dialect.	Number of speakers.
Cis-Salween ...	Total ...	897,803
	Shan ,,	897,578
	Daye ...	225
Trans-Salween	Total ,,	70,572
	Lu ...	13,262
	Hkun ...	48,408
	Siamese ...	8,902
GRAND TOTAL ...		968,375

Daye is the language of a Shan tribe found in the western portion of the Southern Shan States. In 1901 they numbered 1,094 persons but their language did not enter into the Census Records. The figures for the current census show that they are being absorbed by the surrounding Shan races. Opinions as to their origin are varied. They are probably a Shan-Chinese hybrid, though it is possible that they may be a tribe of immigrant Shans from the Upper Chindwin District. It is probable that they will have disappeared entirely before the next census enumeration.

Daye.	1911.	1901.
Strength of tribe ...	201	1,094
Number speaking tribal language.	225	*Nil.*

212. Hkun and Lu.—The relative figures recorded for the persons using these forms of speech are an indication of the minute nature of the distinctions between them. From a comparison of the numbers of the tribal members and the numbers of persons using these forms of speech it is obvious that a large proportion of the Lus have given Hkun as their

Hkun.	1911.	1901.
Strength of tribe ...	42,366	41,470
Number speaking tribal language.	48,408	42,160

form of speech. The two dialects are very closely allied. They both have the same characters, and both have the same points of divergence from the Lao dialect of Chiengmai. Hkun the more extended and virile of the two dialects is expending at the expense of the relatively unimportant Lu dialect. Both dialects are spoken in the trans-Salween portion of Kengtung, the largest and most easterly of the Southern Shan States.

Lu.	1911.	1901.
Strength of tribe ..	17,331	16,227
Number speaking tribal language.	13,262	19,380

213. The Sinitic or Karen Languages.—The various dialects of Karen are spoken along the whole of the eastern frontier of Burma Proper from Yamèthin to Mergui. They expand eastwards into Karenni and the more western of the Southern Shan States, and westwards over the whole of the rural portions of the delta of the Irrawaddy. The inclusion of the languages of Karenni in the figures for the current census has given for the first time a complete record of the persons using the Karen forms of speech. It is to this extension of census classification that the inclusion of the Karennet, Karenbyu, Sinsin, Manu, Yinbaw, and the large increases in the Karenni and Brè dialects are to be attributed. The increases in the numbers of Sgaw, Pwo, and Taungthu Karens are natural, but the figures for all the remaining dialects are influenced by the inclusion of an area where previously no record of language was attempted.

Dialect.	Number of speakers.		Percentage of Provincial Population.
	1911.	1901.	
Karen (Sgaw and Pwo).	850,756	704,835	7·02
Taungthu	168,326	160,436	1·39
Karenni	21,203	1,363	1·8
Karennet	728	...	...
Karenbyu	777	...	·01
Zayein	4,892	4,666	·04
Sinsin	899	...	...
Brè	6,918	669	·06
Mano	2,182	...	·02
Yinbaw	2,166	...	·02
Padaung	8,516	9,321	·07
Total ...	1,067,363	881,290	8·81

Karen.	1911.	1901.
Strength of races ...	1,102,695	903,361
Number of speakers ...	1,067,363	881,290

In the absence of a thoroughly conducted linguistic survey, and of any complete examination of the various languages of this group by philologists, it would be unwise to attempt any internal classification of the dialects recorded. Such an attempt would be merely provisional and might obscure rather than assist a final determination of the relations subsisting between them. Mr. Eales is of the opinion that the Sinitic languages have suffered in the past from over-classification. It is obvious that any attempts based on superficial resemblances or analogies are to be deprecated. While a considerable amount of study and research has been given to individual dialects of the group, no complete comparative analysis of the group as a whole has been attempted.

214. Sgau and Pwo Karen.—The Karen language as spoken in the deltaic plains of the province has two dialects, Sgau and Pwo. It is impossible owing to the numbers of entries of unspecified Karens to give the respective numbers of persons using each form of speech. Owing very largely to missionary influence, these dialects are more than holding their own, and show no tendency whatever to succumb to the Burmese influence which surrounds them. The increase in numbers is a genuine advance, not being due to any change in census area. The rate of increase is greater than that for the population of the province as a whole, or than that of the speakers of Burmese, or of the Burmese group of languages. There is a tendency for the Pwo dialect to give place to Sgau but the figures recorded do not enable the strength of this tendency to be measured. The wide diffusion of these two dialects through an extensive area may be compared with the extremely localised distribution of the Bghai dialects of the same group. The comparison affords an illustration of the general principle that ease and facility of communication tend to widespread integration of race and language, whereas the difficulty of communications in hilly regions tend to localisation and disruption.

Sgau and Pwo Karen.	1911.	1901.
Strength of tribes ...	872,825	717,859
Number of speakers ...	850,756	704,835

215. Taungthu.—The Taungthu dialect of the Karen language is spoken along the eastern border land of Burma proper between the deltaic plains on the one hand and the Shan States on the other. It has affinities with the Pwo branch of Karen and is probably a development of Pwo under the influence of other linguistic elements. Like the main branches of the language it shows signs of genuine increase and is in no danger at present of absorption. Its progress is steady, and though not proportionate to the progress made by Sgau and Pwo dialects it is sufficient to dispel all apprehensions of disintegration.

—	1911.	1901.
Strength of tribe ...	183,054	168,301
Number speaking tribal language.	168,326	160,436

216. Bghai Dialects.—Of the eight representatives of the Bghai dialects or the Northern Karen sub-group, five are presented for the first time in the census records. Karennet, Karenbyu, Sinsin, Manu and Yinbaw are spoken in Karenni, a group of Karen States included for the purpose of administration with the Southern Shan States. In 1901, its population was estimated and no record of languages attempted. Consequently the speakers of these dialects were not included in the census returns. The great majority of the persons speaking Karenni and Brè live within this area, and their true numbers are for the first time revealed in the figures now presented. Zayein and Padaung are spoken in several of the Shan States proper and were not therefore excluded from the records of 1901. Until a careful philological survey of these dialects has been concluded and their respective elements analysed it is impossible to speak with certainty as to their correct classification. Provisionally they can be considered as the natural variations of the Bghai dialect induced partly by the highly diversified surface of the region in which it is spoken and partly by contact with other races by whom its speakers are surrounded.

Bghai Dialects.	Number of speakers.	
	1911.	1901.
Karenni	21,203	1,363
Karennet	728	...
Karenbyu	777	...
Zayein	4,892	4,666
Sinsin	899	...
Brè	6,918	669
Manu	2,182	...
Yinbaw	2,166	...
Padaung	8,516	9,321

AUSTRO-ASIATIC FAMILY.

217. Austro-Asiatic Family.—For the genesis of the term "Austro-Asiatic" in its linguistic connotation, reference must be made to the original monograph by Pater Schmidt commencing on page 187 of the Journal of the Royal Asiatic Society for 1907, in which it was first applied to systematise a long established series of affinities between a number of widely scattered languages in Southern Asia. The Munda languages of Central India, the scattered Mon-Khmer languages of Burma and Assam, the Nancowry language of the Nicobars, and the aboriginal languages of Malacca, have points of resemblance which have been recognized for many years. But it remained for Schmidt to complete the suggestions contained in the volumes of the Linguistic survey and piece together many of its conclusions into a more systematic form. The decree of divorce in the Dravido-Munda family pronounced in Volume IV of the Survey was final, and succeeded in effecting the separation between the two partners of an ill-assorted union. This was followed in due course by the announcement that the affinity between the Mon-Khmer and the Munda languages was such that a closer union was highly desirable. They are now associated together under the new term "Austro-Asiatic." The work of Pater Schmidt in promoting the new grouping, and in including the two partners into a new and wider family termed the "Austric" is characterised by Dr. Grierson as the most important discovery in philology in the last ten years.

No direct representatives of the Munda forms of speech now remain in Burma. They survive principally as an influence having a potent effect on the moulding of the Mon-Khmer languages and especially Talaing into the forms they finally assumed. Although it is highly probable that the Mon-Khmer languages were at one time spoken throughout the whole of further India, the population of

Population using Mon-Khmer forms of speech.	
Languages.	Number of speakers.
Talaing	179,443
Palaung-Wa group	165,757
Miao-Yao group ...	920
Total ...	346,120

Burma using these forms of speech is now but an insignificant portion of the whole. Only 346,120 persons, or approximately 2·8 per cent. of the total population are speakers of these languages and there is a tendency for the speakers of the principal language of the group, the Talaing, to discard their language for Burmese.

218. Mon-Khmer Languages.—There remain only three small groups of languages in Burma to represent what was at one period an almost universal form of speech over the entire province. The invasions of the Tibeto-Burman and the Siamese-Chinese languages have succeeded in circumscribing and isolating the Mon-Khmer languages into two localities. One, near the sea-coast on both sides of the mouth of the Salween River, is the limited area where the Talaing language is struggling almost desparingly for its existence against the all-absorbing and surrounding Burmese tongue. The other, on the north-eastern border of the province, contains a number of primitive tribes, dispersed over a wide stretch of mountainous country, whose dialects have been classed into two linguistic groups. The figures for the Talaing language are unaffected by census changes, but those of the Palaung-Wa group are modified to a great degree by the extension of the census enumeration to the regions of Kokang and West Manglun. The introduction of the Miao-Yao group into the Burmese scheme of languages is also to be attributed partly to the same extension. Despite the expansion of the census area the figures for the Palaung-Wa and the Miao-Yao groups are not a complete summary of the persons using their dialects. East Manglun has still to be brought within the scope of census operations and the majority of its inhabitants would belong to these groups. Moreover, only a small fringe of the persons speaking the Miao-Yao dialects live within the province, the great majority dwelling beyond the frontier.

Mon-Khmer languages.

Group.	1911.	1901.
Talaing	179,443	154,483
Palaung-Wa	165,757	82,272
Miao-Yao	920	Nil.
Total ...	346,120	236,755

219. Talaing.—The Talaing language is the form of speech assumed by the Mon invaders of Burma influenced by the Munda inhabitants they found in possession of the lower portion of the Irrawaddy valley. Originally spoken over an extremely wide area covering practically the whole of the natural division designated the deltaic plains and a large portion of Tenasserim, it is now spoken principally in the Amherst and Thatôn Districts. Upon the conquest of Pegu by Alaungpaya in 1757 the Burmese strongly discouraged the use of the Talaing language, but it was not till the evacuation of Pegu by the British in 1826 that the language was absolutely proscribed. Its teaching in the Buddhist monasteries or other schools was then prohibited and in the interval between 1826 and the re-occupation of Pegu by the British in 1852 the language practically became extinct in Burmese territory. It was kept alive by those members of the race who migrated to Tenasserim and remained under British rule until they were able to return to their original homes. The great interest in the figures now presented is the evidence they give to the effect that the gradual decay and disintegration of the language has for a time ceased. Instead of a progressive decrease, there is a remarkable increase of 24,960 persons using the Talaing form of speech. This increase is to be found principally in those portions of the province which reverted to Burmese rule from 1826 to 1852. The districts now falling within the area where the language was so relentlessly proscribed contribute 19,248 Talaing-speaking persons towards the total increase. The numbers of the Talaing race have not progressed proportionately. Indeed they show a slight decrease for the ten years elapsing since the enumeration of 1901. But the remarkable vitality shown by the language is a demonstration that the absorption of the Talaing race by the Burmese and the disappearance of the Talaing language are neither so immediate nor so inevitable as has been generally assumed.

Talaing.

Talaing.	1911.	1901.
Strength of race ...	320,629	321,898
Number speaking racial language.	179,443	154,483

220. The Palaung-Wa Group.—The comparative figures for the various dialects of the Palaung-Wa group would appear to defy explanation. There

appears to be no degree of correspondence between the figures for 1901 and 1911. They indicate in fact the extremely immature state of our knowledge, both statistical and philological, of the languages of the North-Eastern frontier of the province. The elimination of the Danaw dialect entirely from the figures is due to the discovery that the Danu and the Danaw dialects are distinct rather than allied forms of speech. The former is a Shan-Burmese hybrid and the latter a Shan-Palaung combination, which is practically extinct. Mr. Lowis foreshadowed the distinction in his census report for 1901, though the discovery was too late to enable the figures for the two dialects at that census to be separated. In the present census considerable care has been given to the distinction, with the result that no records of Danaw speech have been found. The difficulties have however been extremely great. The localities in which the two tribes live are in close proximity and their records have been made by Shan and Burmese enumerators by whom the distinction was in many cases ignored. The Danaws have been recorded as using Shan and Palaung forms of speech. Other apparent anomalies in the comparison between 1901 and 1911 are due to the inclusion of the Kokang and West Manglun areas for the first time within census limits and the classification of the languages of the Kachin districts of North Hsenwi for the first time. Moreover the administrative control exercised over the region where these languages are spoken is of the slightest, the people are almost entirely illiterate, alien enumerators have to be imported, and the possibilities of effective supervision are but small.

—	1911.	1901.
Palaung	144,248	51,121
Danaw	...	18,994
Yin (Riang) ...	5,004	4,490
Wa	12,548	7,667
En	3,684	...
Pyin	273	...
Hkamuk	...	75
Total, Palaung-Wa group.	165,757	42,347

Considering all these circumstances, the resulting lack of correspondence between the figures for 1901 and 1911 is explainable. The figures for 1911 are not to be taken as an accurate or complete statement of the persons using the dialects mentioned. East Manglun is still outside census limits and the administrative frontier of Burma does not correspond with the limits within which the dialects are spoken.

The marginal statement gives a comparison of the numbers recorded as belonging to the tribes of this group and speaking the respective tribal languages. The Palaung dialect is spoken in the Northern Shan States and in the Möng Mit State of the Ruby Mines District. Yin or Riang is a dialect spoken by a Palaung tribe which has extended southwards into the Southern Shan States. The Was, with their sub-tribes the En and the Pyin, live in the eastern portions of the Shan States.

Tribe.	Number of members.	Number speaking tribal language.
Palaung	144,139	144,248
Danaw	1,724	...
Yin (Riang) ...	7,928	5,004
Wa	14,674	12,548
En	3,455	3,684
Pyin	275	273
Total ...	172,195	165,757

221. Miao-Yao Group of Languages.—The tribes speaking these languages are scattered over the various provinces of South-Western China. Only the most extreme fringes have crossed the Burmese border line. A few villages on the eastern border of the Northern and Southern Shan States contain all the representatives to be found in Burma. They have not previously appeared in the census records. The inclusion of these dialects as a group of the Mon-Khmer family is justified by Major Davies by a comparison of vocabularies and by the following structural resemblances :—

Dialect.	Number of speakers.
Miao ..	646
Yao ...	274
Total ...	920

(i) Noun before adjective.
(ii) Thing possessed before possessor.
(iii) Subject before verb.
(iv) Verb before object.

Full vocabularies of the Miao dialect are available, but those for Yao are much less comprehensive.

222. Malayo-Polynesian Family.—The persons using forms of speech belonging to the Malayo-Polynesian family in Burma form a very small portion of

the community. They number slightly over 6,000, and can be divided into two groups, the Malay and Salon groups respectively. The Malays are non-indigenous and are to be found dwelling in the coast villages of the Mergui District. The Salons (or Mawken) are the well-known sea-gypsies living in the Malay Archipelago. Previous knowledge of the Salon language has been obtained principally through Chinese and Malay sources. It has recently been the subject of investigation by the Rev. W. G. White of Moulmein. His "Introduction to the Mawken language" is undoubtedly the most complete study of this language that has yet been attempted. It is extremely valuable in that its grammar and vocabulary have been obtained directly from the people themselves and not through the medium of Malay or Chinese interpreters. The work is termed "An Introduction," and a fuller and more explicit study of the language is promised at a later date. The real classification of this language must await a study of this new material by philologists. It is probable that the connection with Malay is much less than has been assumed, and that the Malay elements in the language have either been recently incorporated, or have been due to the previous study of the language by means of the Malay language as an investigating medium. Provisionally, the classification of Salon or Mawken as a member of the Malayo-Polynesian family is being retained. With the publication of Mr. White's supplementary volume, there will be full material for the classification of this language, and the family or group to which it belongs can be finally determined.

Malay.	1911.	1901.
Strength of race ...	4,239	3,983
Number speaking racial language.	4,190	2,425

Salon (Mawken).	1911.	1901.
Strength of tribe ...	1,984	1,325
Number speaking tribal language.	1,871	1,318

223. Indian Languages.—The comparison of the various Indian languages as recorded in the years 1901 and 1911 will be found in Subsidiary Table IB appended to this chapter. The marginal statement gives a summary of the four principal branches or groups of their two main families. Mr. Lowis has written feelingly of the difficulties experienced in obtaining a record of Indian languages in Burma, and it is not necessary to repeat in detail how these difficulties tend to make a correct record almost impossible. The principal impression produced by an inspection of the comparative figures is the slight increase in the number of persons using Indian forms of speech. Immigration from India to Burma is so extensive that the resulting impression on the speech of the country seems disproportionately ineffective. There are many reasons for the divergence between the extent of Indian immigration and the extension of Indian vernaculars. A large part of the immigration is seasonal only, and the immigrants return without having produced any linguistic impression; but a still more significant circumstance is the fact that the majority of the immigrants are males. They either live in congested areas where the death-rate largely exceeds the natural increase of population, or else they expand in small numbers over wide stretches of country and intermarry with the Burmese. The children of such mixed unions in the majority of cases speak Burmese and are brought up as Burmans. It will, therefore, be seen that the resultant progress of the Indian languages is far less than the number of immigrants would suggest. The wastage is extremely heavy and the natural increase extremely small. Immigration must first of all supply the natural deficiencies before it can be effective in causing an increase.

Family.	Branch or group.	Total number of speakers.	
		1911.	1901.
Dravidian	Dravida ...	126,426	99,934
	Andhra ...	123,162	96,601
Indo-European	Iranian ...	1,827	528
	Indian ...	490,043	368,108

224. Chinese.—The increase in the number of people speaking Chinese from 47,444 to 108,877 is not due purely to natural progress nor yet to the effect of large streams of immigration into the province. A large portion of the increase is due to the extension of census limits on the northern and north-eastern frontiers of the province, a region containing a very large proportion of Chinese population. The

extra areas in Myitkyina, in North Hsenwi, in Kokang and in West Manglun have added materially to the Chinese population under review. It is probable that among the tribes on the north-eastern frontier the extension of Chinese speech and Chinese influence is proceeding rapidly and is absorbing the members of the minor tribes of that region. It is impossible yet to obtain reliable statistical data as to the progress of the movement but it is probable that with the increase of facilities of communication and the extension of settled Government all the minor dialects of the north-eastern frontier will be gradually submerged by one or other of the dominant languages gradually extending their present limits. While Burmese, Kachin and Shan will extend themselves, it is doubtful whether they will keep pace in this region with the remarkable progress being made by the Chinese language.

LANGUAGE DISTRIBUTION BY NATURAL DIVISIONS.

225. **Central Basin.**—Subsidiary Table II appended to this chapter gives the distribution of the population of each district and natural division of the province by the more important language groups. An examination of this table presents a clearer view of the general provincial linguistic characteristics than can be obtained by a consideration of each separate dialect in detail. The Central Basin is predominantly Burmese with 96 per cent. of its population using forms of speech belonging to the Burma group of languages. Its border is fringed with a few dialects from other groups, Karen to the south, Shan to the north and east, and Chin to the west. Also distributed in its towns and larger villages are a number of speakers of other languages (principally Indian and Chinese). But the total of all such non-Burmese elements does not amount to 4 per cent. of the population. In the more Central districts, Sagaing and the Lower Chindwin may be instanced, the users of Burmese forms of speech exceed 99 per cent. of the people, while in no single district does the proportion fall so low as 90 per cent.

226. **Deltaic Plains.**—The linguistic distribution of the population of the deltaic plains is much less homogeneous. The Karen languages account for about sixteen and a half per cent. of the total, and the large immigration of natives of India causes the high percentage of 10·53 for languages other than the six main indigenous groups. Of course this latter percentage is weighted by the inclusion of Rangoon which contains approximately two speakers of alien tongues to each Burman. But such percentages as 14·64, 10·53 and 8·08 for the population speaking non-indigenous languages in the districts of Hanthawaddy, Pegu and Pyapôn respectively, represent the inroads being made by immigrant Indians beyond the limits of Rangoon. Strangely enough, in the natural division of the Province where until recently the Talaings were supreme, not one per cent. of the population is to be found using the Talaing speech. It has ceased to count in the linguistic conflict at present being waged in the deltaic region. The three serious competitors are Burmese, Karen and the various Indian languages. The latter, though continually reinforced by heavy immigration, cannot maintain their natural increase owing to the shortage of female immigrants and the absence of any extensive Indian family life. It is improbable, unless conditions change most materially that any Indian language will ever seriously challenge the progress of Burmese and Karen in the rural portions of the deltaic plains.

227. **Northern Hill Districts.**—The linguistic diversity to be found in the Northern Hill Districts is much greater than can be gathered from an examination of Subsidiary Table II. The grouping of the various dialects into their main groups disguises the infinite variety to be found in this portion of the province. Almost every mountain range and every valley has its dialect, differing slightly from those spoken in the vicinity. The absence of facilities for communication and of central administrative control have in the past caused a disintegration of the main linguistic stocks. A contrary tendency is now operating and the four dominant languages, Burmese, Shan, Kachin and Chinese, are absorbing the minor tribal forms of speech. Even in the Northern Hill Districts the languages of the Burmese group claim priority, numbering 39·69 per cent. of the total population as against 35·16 per cent. of Shan speaking peoples. Kachin with approximately 15 per cent. is a rapidly advancing dialect. It must be noted that the 9·55 per cent. speaking other languages are not, as in the deltaic plains, principally natives of India. The chief representatives included in this figure are Chinese and the dialects of the Wa-Palaung and Lolo groups.

228. Coast Ranges.—The geographical discontinuity of this natural division is reflected in its linguistic distribution. The Arakanese portion is mainly divided between the Arakanese dialects of the Burmese group and various Chin dialects, the former predominating except in Northern Arakan. Proximity to Bengal introduces a large Indian element into the Akyab District. In the Tenasserim portion the linguistic distribution is even more heterogeneous. Karen predominates in Salween District, Talaing in Amherst, and Burmese in Tavoy and Mergui. The general supremacy of the Burmese groups is indicated by the percentage of 57·46, whereas Karen and Talaing both fail to attain to a proportion of 10 per cent. of the population. The persons speaking languages other than those of the six main groups form naturally a large proportion, Indian, Siamese and Malay languages contributing a considerable number.

229. Specially Administered Territories.—The two western territories of this division are almost exclusively Chin. Greater diversity is to be found in the Shan States forming its two eastern territories. Shan naturally predominates in both the Northern and the Southern Shan States, being spoken by slightly over half the population of the former and slightly under half the popluation of the latter. Kachin and the numerous tribal languages on the north-eastern frontier absorb most of the remainder of the people of the Northern Shan States, leaving less than four per cent. speaking Burmese. In the Southern Shan States, Karen Burmese and minor tribal dialects in the order mentioned are the remaining forms of speech.

230. General Summary.—It is a matter of some difficulty to piece together the fragmentary portions of this chapter and reduce them to a few connected generalised conclusions. There are many factors which cause a presentation of the dialects of Burma in statistical form to be imperfect. The change in census limits disturbs the comparison with previous figures. The non-coincidence of census and linguistic boundaries cause the figures for many languages and dialects to represent only an unknown portion of the whole. The absence of literate enumerators, and the superficial nature of administrative control precisely where linguistic difficulties are greatest and most complex, prevents the records of the minor dialects from being recorded with the necessary accuracy. To add to these disturbing influences, the general philological ignorance of the relations and distinctions between the separate dialects and groups, precludes the possibility of preparing instructions beforehand to guide enumerators and supervisors in their numerous perplexities. Until a linguistic survey of the province is possible, the census returns for languages can only claim accuracy so far as the main groups of languages are concerned. The speakers of the minor dialects will be entered partly as using the generic form of speech and partly in their correct minor category.

Groups.	Percentage of total population.	
	1911.	1901
Burmese	68·67	71·77
Karen	8·81	8·51
Shan	7·99	8·15
Talaing	1·48	1·49
Kachin	1·39	·65
Chin	2·45	2·06
Indian languages ...	6·11	5·44
Other languages ...	3·10	1·93

Considering the general percentages for the province as a whole it is seen that speakers of the Burmese, Shan and Talaing groups of languages form smaller proportions of the provincial population than in 1901. Each of these forms of speech has progressed absolutely. Their reduced percentages are due to two causes. In the first place their progress has not been quite proportionate to the general increase in the provincial population; and in the second place, the extension of the area of linguistic classification has introduced large numbers of speakers of other languages. Karen, reinforced by the dialects of Karenni, has advanced its percentage slightly. Chin has progressed to a still greater degree, owing to the inclusion of the Chin-speaking tribes of the Pakôkku Hill Tracts and to closer and more efficient enumeration. Kachin has more than doubled its proportionate share of the population, owing principally to extensions of census limits on the northern boundary of the province into regions with a high proportion of peoples using Kachin forms of speech. Indian languages have progressed more rapidly than the movement of the general population, but the increase from 5·44 to 6·11 per cent. is trifling in comparison with the large Indian immigration into Burma.

SUBSIDIARY TABLE I.—*Distribution of Total Population by Languages.*

Family.	Sub-Family.	Branch.	Group.	Sub-Group.	Total number of speakers.		Per 10,000 of population in 1911.
					1911.	1901.	
1	2	3	4	5	6	7	8
Tibeto-Chinese.	Tibeto-Burman.	Assam-Burmese.	Kuki Chin ...	...	296,912	213,171	245
			...	Meithei ...	1,629	3,676	1
			...	Old Kuki ...	249	215	...
			...	Northern Chin.	151	...	...
			...	Southern Chin.	60,280	29,852	50
			...	Unclassed ...	234,603	179,428	194
			Kachin ...	...	170,144	67,026	140
			...	Unclassed ...	169,414	65,570	139
			...	Kachin-Burma Hybrids.	730	1,456	1
			Lolo ...	...	65,548	47,250	54
			Burma ...	...	8,317,842	7,437,363	6,867
	Siamese ...	...	Sinitic ...	...	1,067,363	881,290	881
	Chinese ...	...	Tai ...	...	968,375	844,306	799
Malayo-Polynesian.	...	...	Malay ...	...	6,061	3,743	5
Austro-Asiatic.	Mon-Khmer.	...	Mon-Khmer proper.	...	179,443	154,483	148
			Palaung-Wa	...	165,757	82,347	136
			Miao Yao ...	...	920	...	...
Dravidian ...	...	...	Dravida ...	...	126,426	99,934	104
			Andhra ...	...	123,162	96,601	102
Indo-European.	Aryan ...	Iranian ...	...	...	1,827	528	1
Indo-European.	...	Indian ...	...	...	490,043	368,108	404
Semitic ...	...	...	...	...	201	301	...
Other Asiatic Languages			...	...	109,989	47,921	91
European Languages			...	...	25,204	19,244	21

SUBSIDIARY TABLE IA.—*Details of Distribution of Population speaking Languages included in the Tibeto-Chinese Family.*

Group.	Sub-Group.	Language.	Total Number of speakers.		Number per 10,000 of population of Province, 1911.	Where chiefly spoken.
			1911.	1901.		
1	2	3	4	5	6	7
Kuki-Chin	...	...	**296,912**	**213,171**	**245**	
	Meithei ..	Manipuri ..	1,629	3,676	1	Mandalay and Northern Districts.
	Old Kuki	Kyaw (Chaw)	249	215	...	Northern Arakan.
	Northern Chin	Siyin ...	151	...	...	Chin Hills.
	Southern Chin	...	**60,280**	**29,852**	**50**	
		Yindu ...	4,348	43	4	Pakôkku Hill Tracts.
		Chinbôk ...	18,179	...	15	Pakôkku Hill Tracts.
		Chinbôn ...	1,600	...	1	Pakôkku Hill Tracts.
		Baungshe ...	1,924	...	2	Pakôkku Hill Tracts.
		Khami ...	16,431	24,389	14	Akyab and Northern Arakan.
		Anu ...	474	775	...	Northern Arakan.
		Thet (Sak) ...	80	67	...	Akyab.
		Taungtha ...	17,244	4,578	14	Akyab and Pakôkku.
	Unclassed ...	...	**234,603**	**179,428**	**194**	
		Chin ...	233,661	176,323	193	Districts on both sides of the Arakan Yomas.
		Daingnet ...	919	3,105	1	Akyab.
		M'hang ..	23	...	...	Akyab.
Kachin ...	...	...	**170,144**	**67,026**	**140**	
	Unclassed ...	Kachin ...	169,414	65,570	139	The Northern Hill Districts and Northern Shan States.
	Kachin-Burma Hybrids.	...	**730**	**1,456**	**1**	
		Tsi (Szi) ...	205	756	...	Ruby Mines.
		Maingtha ...	316	465	...	Distributed over Northern Hill Districts.
		Lashi ...	...	84	...	.....
		Maru ...	209	151	...	Northern Shan States.
Lolo ...	...	...	**65,548**	**47,250**	**54**	
		Lisu (Lisaw) ...	9,066	1,605	8	Upper Salween Valley.
		Lahu (Muhsô)	18,500	16,732	15	Southern Shan States.
		Kwi (Lahu Hsi).	3,924	...	3	Southern Shan States.
		Akha (Kaw) ...	32,925	27,751	27	Kêngtûng.
		Ako ...	794	1,162	1	Kêngtûng.
		Lolo (Myen) ...	339	...	...	Beyond the Burma frontier.
Burma ...	...	...	**8,317,842**	**7,437,363**	**6,867**	
		Burmese ...	7,883,299	7,006,495	6,507	All over the province.
		Arakanese ...	323,962	383,400	268	Arakan.
		Taungyo ...	19,317	10,543	16	South-west of Southern Shan States.
		Intha ...	55,880	5,851	46	The vicinity of Yanghwè State.
		Danu ...	18,694	...	16	The western border of the Southern Shan States.
		Hpôn ...	342	...	...	Near the third defile of the Irrawaddy
		Tavoyan ...	46	5	...	Tavoy District.
		Kadu ...	11,069	16,300	10	Katha District.
		Chaungtha ...	2,515	1,350	2	Northern Arakan.
		Mrô ...	2,718	13,414	2	The Arakan-Chittagong border.
		Yaw ...	...	5	...	.....
Sinitic ...	...	...	**1,067,363**	**881,290**	**881**	
		Karen (Sgau and Pwo).	850,756	704,835	702	The Deltaic Plains.
		Taungthu ...	168,326	160,436	139	The border between Burma and the Southern Shan States.
		Karenni ...	21,203	1,363	18	Karenni.
		Karennet ...	728	...	...	Karenni.
		Karenbyu ...	777	...	1	Karenni.
		Zayein ...	4,892	4,666	4	South of Southern Shan States.
		Sinsin ...	899	...	...	Karenni.
		Brè ...	6,918	669	6	Karenni.
		Manô ...	2,182	...	2	Karenni.
		Yinbaw ...	2,166	...	2	Karenni.
		Padaung ...	8,516	9,321	7	South of Southern Shan States.
Tai ...	...	...	**968,375**	**844,306**	**799**	
		Shan ...	897,578	750,473	740	Northern Hill Districts and Southern Shan States.
		Tai-Loi ...	...	12,762	...	.....
		Hkün ...	48,408	42,160	40	Kêngtûng.
		Lü ...	13,262	19,380	11	Kêngtûng.
		Daye ...	225	...	...	West of Southern Shan States.
		Siamese ...	8,902	19,531	8	Mergui.

SUBSIDIARY TABLE IB.—*Details of Distribution of Population speaking Languages not included in the Tibeto-Chinese Family.*

Family.	Sub-family.	Branch.	Group.	Sub-Group.	Language.	Total Number of speakers. 1911.	Total Number of speakers. 1901.	Number per 10,000 of population of Province.	Where chiefly spoken.
1	2	3	4	5	6	7	8	9	10
Malayo-Polynesian.			Malay ...	...	.....	6,061	3,743	5	
				Salon (Mawken).	.....	1,871	1,318	2	Mergui Archipelago.
				Malay ...	.....	4,190	2,425	3	Mergui.
Austro-Asiatic.	Mon-Khmer.		Mon-Khmer Proper.	...	Talaing ...	179,443	154,483	148	Thatôn and Amherst Districts.
			Palaung-Wa	..	.....	165,757	82,347	136	
					Palaung ...	144,248	51,121	119	North-Eastern Border from Bhamo to Southern Shan States.
					Danaw ...	...	18,994	...	.....
					Yin (Riang) ...	5,004	4,490	4	Southern Shan States.
					Wa	12,548	7,667	10	North-Eastern Border of Northern and Southern Shan States.
					En	3,684	...	3	Southern Shan States.
					Pyin	273	...	...	Southern Shan States.
					Hkamuk ...	...	75	...	.....
			Miao-Yao	...	.....	920	...	...	
					Yao	274	...	...	Beyond the Eastern Border of the Shan States.
					Miao (Hmang)	646	...	...	
Dravidian.			Dravida ...	...	.....	126,406	99,900	104	Diffused but principally in Rangoon and the towns of Lower Burma.
					Tamil	125,670	99,576	104	
					Malayalam ...	736	324	...	
			Andhra ...	...	Telegu ...	123,162	96,601	102	Rangoon and towns of Lower Burma.
Indo-European.	Aryan.	Iranian	Western ...	...	.....	1,827	528	1	Diffused.
					Persian ...	240	196	...	
			Eastern ...		Pushto ...	1,587	332	1	
		Indian	...	...	.....	490,063	368,142	404	Diffused.
					Kashmiri ...	...	12	...	
					Sindhi ...	85	56	...	
					Marathi ...	1,711	444	1	
					Oriya ...	19,112	12,997	16	
					Bengali ...	248,310	204,973	205	
					Assamese ...	151	...	...	
					Hindi ...	40,105	28,689	33	
					Hindustani ...	135,215	95,122	112	
					Urdu	9,374	...	8	
					Nagri	188	...	...	
					Gujarati ...	7,896	4,048	7	
					Kachhi ...	...	19	...	
					Goanese ...	351	67	...	
					Punjabi ...	22,938	15,845	19	
					Marawari ...	504	280	...	
					Garhwali ...	3	...	...	
					Naipali ...	3,970	5,463	3	
					Singalese ...	150	44	...	
					Untraced ...	...	83	...	
Semi-tic.		...	...	...	Arabic ...	201	301	...	Rangoon
Other Asiatic Languages					.....	109,989	47,887	91	Diffused.
					Chinese ...	108,877	47,444	89	
					Hebrew ...	476	254	1	
					Caucassian ...	20	...	...	
					Turkish ...	5	6	...	
					Japanese ...	558	107	1	
					Phillipine (tagala)	53	...	...	
					Untraced ...	...	76	...	
European Languages					.....	25,204	19,244	21	Diffused.
					English ...	24,355	18,500	20	
					French ...	135	82	...	
					German ...	186	126	...	
					Italian ...	122	51	...	
					Other European languages.	406	485	1	

SUBSIDIARY TABLE II.—*Distribution by Language of the Population of each district.*

District and Natural Division.	Number per 10,000 of population speaking languages of the following groups.						
	Burmese.	Karen.	Shan.	Talaing.	Kachin.	Chin.	Other languages.
1	2	3	4	5	6	7	8
Whole Province ...	6,867	881	799	148	139	245	921
I.—Central Basin ...	*9,806*	*19*	*17*	...	...	*161*	*198*
Prome	9,341	104	20	...	..	295	240
Thayetmyo	9,019	1	...	...	...	820	160
Pakôkku	9,603	...	...	...	...	335	62
Minbu	9,173	...	1	...	...	669	157
Magwe	9,779	...	1	...	...	69	151
Mandalay	9,069	1	103	...	1	...	826
Shwebo	9,835	3	34	...	...	...	128
Sagaing	9,905	...	...	...	...	...	95
Lower Chindwin ...	9,935	3	...	...	...	...	62
Kyauksè	9,860	...	6	...	...	...	134
Meiktila	9,775	1	5	...	...	...	219
Yamèthin	9,555	120	36	...	1	41	247
Myingyan	9,923	...	2	...	...	...	75
II.—Deltaic Plains ...	*7,105*	*1,648*	*85*	*90*	...	*19*	*1,053*
Rangoon	3,325	36	9	1	2	...	6,627
Hanthawaddy ...	7,629	772	121	15	...	2	1,464
Tharrawaddy ...	9,066	527	89	...	...	32	286
Pegu	7,875	849	167	27	...	29	1,053
Bassein	7,345	2,164	7	21	...	12	451
Henzada	8,898	782	11	7	...	89	213
Myaungmya ...	6,659	2,865	7	14	...	2	453
Ma-ubin	6,818	2,804	7	11	...	...	360
Pyapôn	8,658	530	1	3	...	...	808
Thatôn	3,600	4,808	120	835	...	...	637
Toungoo	6,785	2,266	361	3	...	3	582
III.—Northern Hill Districts	*8,969*	*6*	*8,516*	*1*	*1,495*	*58*	*955*
Bhamo	2,362	9	2,487	7	3,984	...	1,151
Myitkyina	1,035	2	2,634	...	4,589	...	1,740
Katha	5,060	6	4,504	...	305	...	125
Ruby Mines... ...	4,060	7	1,826	...	898	177	3,032
Upper Chindwin ..	5,135	4	4,457	...	105	122	177
IV.—Coast Ranges ...	*5,746*	*938*	*150*	*934*	...	*485*	*1,747*
Akyab	5,711	1	1	..	...	628	3,659
Northern Arakan ...	2,144	...	...	...	...	7,524	332
Kyaukpyu	9,021	...	...	...	...	797	182
Sandoway	9,119	1	1	...	..	774	105
Salween	353	8,696	799	1	...	6	145
Amherst	2,693	1,994	267	3,804	...	..	1,242
Tavoy	8,995	797	2	8	...	...	198
Mergui	6,473	1,444	796	12	...	9	1,266
V.—Specially Administered Territories.	*1,079*	*1,856*	*4,444*	*1*	*466*	*957*	*1,697*
Northern Shan States	384	16	5,103	...	1,517	2	2,978
Southern Shan States	1,608	2,259	4,828	1	6	...	1,208
Pakôkku Hill Tracts	13	...	...	...	...	9,925	62
Chin Hills	5	1	...	...	...	9,855	139

SUBSIDIARY TABLE III.—*Comparison of Tribe, Race and Language Tables.*

INDIGENOUS TRIBES AND RACES ONLY.

Group.	Tribe.	Strength of tribe (Table XIII).	Number speaking tribal language (Table X).
Kuki-Chin	.....	**306,486**	**295,283**
	Chaw (Kyaw)	249	249
	Yindu	4,348	4,348
	Khami	16,372	16,431
	Anu	479	474
	Thet	79	80
	Taungtha	17,462	17,244
	Daingnet	954	919
	M'hang	23	23
	Chinbôk	18,179	18,179
	Chinbôn	1,600	1,600
	Baungshe...	14,216	1,924
	Siyin	3,108	151
	Other Chin Tribes	98,094	Entered as speaking Chin.
	Chin (unspecified)	131,323	233,661
Kachin	.....	**162,368**	**169,414**
Kachin-Burma Hybrids	.....	**10,167**	**730**
	Tsi (Szi)	3,003	205
	Maingtha	401	316
	Lashi	2,908	.....
	Maru	3,855	209
Lolo	.....	**67,418**	**65,548**
	Lolo (Myen)	339	339
	Lisu (Lisaw)	8,487	9,066
	Lahu (Muhsō)	18,103	18,500
	Kwi (Lahu Hsi)...	3,189	3,924
	Akha (Kaw)	33,181	32,925
	Akō	4,119	794
Burma	.....	**7,986,327**	**8,317,842**
	Burmese	7,479,433	7,883,299
	Arakanese	344,123	323,962
	Taungyo	19,656	19,317
	Intha	52,685	55,880
	Danu	70,947	18,694
	Hpôn	378	342
	Tavoyan	523	46
	Kadu	11,196	11,069
	Chaungtha	2,506	2,515
	Mrō	2,708	2,718
	Yaw	96	.....
	Taman	527	.....
	Yabein	1,549	.....
Sinitic	.....	**1,102,695**	**1,067,363**
	Karen (unspecified Sgaw and Pwo)	872,825	850,756
	Taungthu	183,054	168,326
	Karenni	19,008	21,203
	Karennet	3,721	728
	Karenbyu	790	777
	Zayein	4,981	4,892
	Sinsin	533	899
	Brē	6,911	6,918
	Manō	1,445	2,182
	Yinbaw	911	2,166
	Padaung	8,516	8,516
Tai	.....	**996,420**	**968,375**
	Shan	926,879	897,578
	Khūn	42,366	48,408
	Lü	17,331	13,262
	Daye	201	225
	Siamese	9,643	8,902
Malay	.....	**6,223**	**6,061**
	Salôn (Mawken)...	1,984	1,871
	Malay	4,239	4,190
Mon-Khmer Proper ...	Talaing	**320,629**	**179,443**
Palaung-Wa	.....	**172,494**	**165,757**
	Palaung	144,139	144,248
	Yin (Riang)	7,928	5,004
	Wa	14,674	12,548
	En	3,455	3,684
	Pyin	275	273
	Lamet	231	.....
	Danaw	1,724	.....
	Hkamuk	.....	.....
	Palè	68	.....
Miao-Yao	.....	**1,158**	**920**
	Yao	512	274
	Miao	646	646

CHAPTER X.

Infirmities.

INFIRMITIES GENERALLY.

231. Definition and Statistics.—No change was made at the recent census regarding the information to be collected as to the infirmities of the people. The enquiries were limited to four infirmities only, insanity, deaf-mutism, blindness and leprosy. The following instructions were issued to enumerators with respect to the record of infirmities :—

"If any person be blind of both eyes or insane, or suffering from corrosive leprosy, or deaf and dumb from birth, enter the name of the infirmity in this column. Do not enter those who are blind of one eye only, or who are suffering from white leprosy only, or who have become deaf and dumb after birth."

The resultant statistics are to be found in Imperial Tables XII, Parts I and II, giving the distribution of infirmities by age and by districts, and Imperial Table XII-A giving the distribution by race. These are supplemented by four Subsidiary Tables printed at the end of this Chapter as follows :—

Subsidiary Table I.—Number afflicted per 100,000 of the population at each of the last four census.

Subsidiary Table II.—Distribution of the infirm by age per 10,000 of each sex.

Subsidiary Table III.—Number afflicted per 100,000 persons of each age period and number of females afflicted per 1,000 males.

Subsidiary Table IV.—Number afflicted per 100,000 of the population of 14 selected races.

It should be noted that the proportions in Subsidiary Tables I, III and IV are calculated per 100,000 of the total population, and not per 100,000 of each sex. Thus, the rates of insanity for Burma in 1911 are 43 males and 36 females for every 100,000 of the total population, not 43 males per 100,000 males nor 36 females per 100,000 females.

232. Accuracy of Statistics.—It is a matter of some difficulty to estimate the degree of accuracy to be accorded to the statistics for infirmities. They depend on a diagnosis made by enumerators who in the majority of instances are not qualified for the record of any facts that are not immediately obvious. There is an infinity of gradations between cretinism and weakness of intellect on the one hand, and insanity on the other, and it is impossible by any form of instruction to ensure that the same standard of inclusion shall be observed from district to district, or even from enumerator to enumerator. In the case of deaf-mutism it is difficult to ensure that only congenital deaf-mutes shall be entered. Similarly in the case of blindness, there is the probability that persons whose sight has grown dim on account of age will be included. The returns for leprosy, may, despite warning and instructions, include many suffering from leucoderma or syphilis. It is not probable that there is any wilful concealment, save possibly in the case of females suffering from leprosy.

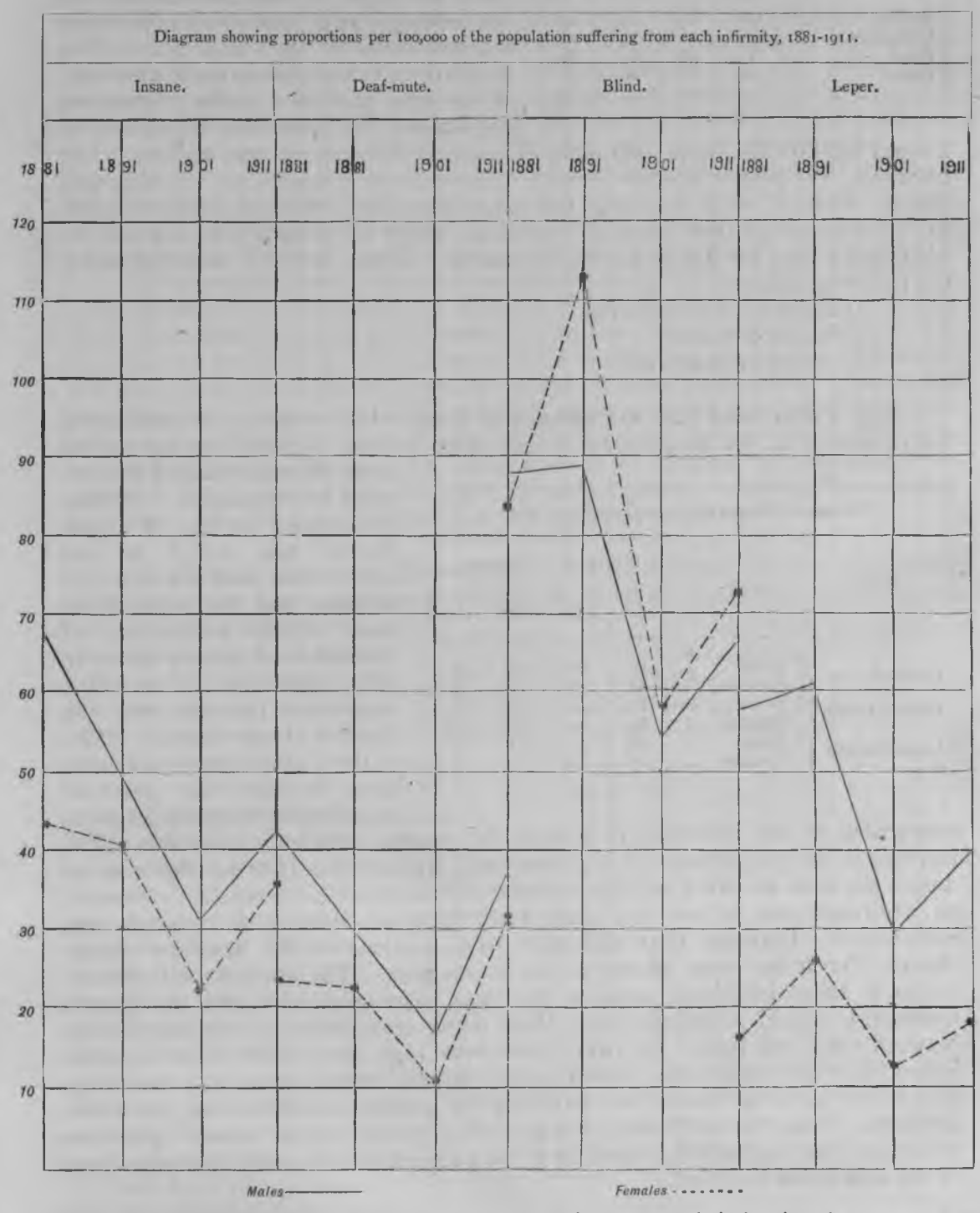
But apart from the original record there has existed a possibility of error during the process of compilation due to the fact that the entries for infirmities, being few and incidental, and made in the final column of the enumeration schedule were apt to be overlooked. The error from this source was considered by Mr. Lowis with reference to the census of 1901 in the following terms :—

"In a word, the decline must be more apparent than real, and it remains to consider what causes can have operated to produce such vastly different returns, and to decide whether on the whole it is more probable that the figures were unduly inflated in 1891 or that there were improper omissions ten years later. In so far as there is a marked falling off in the figures for the later enumeration, the *onus probandi* clearly rests on the shoulders of the 1901 Superintendent ; for, while the temptation wilfully to make incorrect entries is practically *nil*, the danger of overlooking the infirmities' column (column 16) is ever present both in the cases of enumeration and abstraction. As regards abstraction, for which I, and I alone, am responsible, I am not prepared to say that some portion of the decrease may not be due to the posters having missed entries in column 16. Placed, as that column is, at the edge of the schedule and almost hidden on the left-hand page when the book is doubled, it was inevitable that here and there an entry should evade even the most vigilant

eye. In the administrative volume I am, in offering suggestions for improving abstraction at the next census, suggesting that the infirmities' column, which is but seldom filled up and is apt thus to be forgotten and overlooked, should be placed in a more conspicuous position in the schedule."

To avoid a repetition of errors of this nature in the course of compilation for the current census, the tabulation of infirmities was effected from a set of special infirmity slips, prepared by a staff selected for the purpose. The chance of omission of incidental entries in an inconspicuous portion of the schedule was eliminated by making these entries the object of special slips devoted to infirmities only. The possibility of being overlooked in the course of a mass of other entries was avoided by dividing the work of slip copying into two separate operations, the copying of the general entries on the enumeration schedule being effected on one slip, and the copying of infirmities being effected on another.

233. General variations since 1881.—



Before considering the distribution and proportions of each infirmity in turn, an examination of the proportions of the four recorded infirmities jointly, or rather a comparative examination of their respective proportions since 1881 is of great

interest. The materials of the comparisons are to be found in Subsidiary Table I, but for convenience of reference, they are embodied in the marginal statement. It represents the proportions of each sex per 100,000 of the population afflicted with each infirmity respectively. The diagram at the head of this paragraph presents in a graphical form the figures in the marginal statement for the four infirmities. In some respects the diagram is remarkable. For insanity and deaf-mutism there is a marked decline from 1881 to 1891, continued until 1901, and thence an equally marked increase to 1911. Blindness and leprosy shew an increase during the decade 1881 to 1891, a decrease during the succeeding decade, and revert again to an increase between 1901 and 1911. The proportions for females in each case vary in the same directions as the proportions for males. They continue throughout at a lower level for the three infirmities of insanity, deaf-mutism and leprosy. For blindness, the proportions for females commence at a lower level in 1891, and thence forward, while following the same directions, maintain a higher level. Such variations are not inherently probable, and it is necessary to examine to what extent they are due to extraneous causes. These may be classified under the following heads :—

(i) changes of census area,
(ii) errors of record,
(iii) errors of tabulation.

Males afflicted per 100,000 population.

Infirmity.	1911.	1901.	1891.	1881.
Insane ...	43	31	51	68
Deaf-mute ...	39	17	29	42
Blind ...	67	54	89	88
Leper ...	40	29	61	58

Females afflicted per 100,000 population.

Infirmity.	1911.	1901.	1891.	1881.
Insane ...	36	23	41	44
Deaf-mute ...	32	11	23	24
Blind ...	73	58	113	83
Leper ...	18	12	26	16

234. Variations due to changes of area.—It is necessary in considering the variations in the proportions of infirmities to bear in mind that the census areas differ for each of the four years of comparison. In 1891 the greater portion of Upper Burma was added to the census area and it was to this addition that the upward tendency of the proportions of blindness and leprosy between 1881 and 1891 is due. If a comparison be made over the districts of the Deltaic Plains or the Coast Ranges identical areas for the two years of enumeration, the tendency of the proportions of both infirmities is to move downwards rather than upwards. The increase in the proportions of blindness and leprosy from 1881 to 1891 was not due to any such variation in the prevalence of the infirmities but to the inclusion of an additional area where they were more prevalent than in the original area enumerated. Between 1891 and 1901 large portions of the Specially Administered Territories were added to the census area. The enumeration of infirmities in these additional areas in 1901 was extremely faulty, and the general omission to record infirmities within their limits contributed to the large decline between 1891 and 1901. In 1911, there were high proportions of all recorded infirmities in the small areas added to the regular census area, and these high proportions have had some effect in raising the general proportions for the whole province. Thus the successive changes of the area under census operations have had a material effect in modifying the proportions indicating the prevalence of the infirmities recorded.

Blindness and leprosy per 100,000 in 1881 and 1891.

Area.	Sex.	Blindness.		Leprosy.	
		1881.	1891.	1881.	1891.
Province	Males ...	88	89	58	61
	Females ...	83	113	16	26
Deltaic Plains	Males ...	87	52	77	67
	Females ..	80	49	18	18
Coast Ranges	Males ...	76	37	31	23
	Females ...	29	13	10	11

235. Variations due to Errors of Record and Tabulation.—There is no doubt that in 1891 an unduly liberal interpretation was placed on the meanings of the terms "insanity", "blindness" and "leprosy" in Upper Burma. In his

Census Report for 1891, Mr. Eales predicted that large decreases in the returns of all four infirmities and especially in the returns of the blind and the lepers might be expected in the Upper Province. The general decrease in the proportions of each infirmity for both males and females between 1891 and 1901 is due partly to a more correct appreciation on the part of enumerators of the nature of the infirmities of which a record was required. To that extent the decrease indicated a closer return to reality. But the decrease was exaggerated beyond its legitimate limits by errors of record and tabulation. In the added areas of the Specially Administered Territories, omissions to record infirmities were general. In both the Northern and the Southern Shan States, it was admitted by the local officers that there was a tendency to omit the afflicted, and the records for the current census show to what a considerable extent the tendency operated. In the Chin Hills the difficulties encountered by census officers in 1901 were so great, that the record of infirmities was most defective. The record of particulars like infirmities, which in the opinion of the enumerators are unessential, chiefly suffers when difficulties of enumeration are encountered. Reference has already been made to the possibility of omissions in the course of tabulation. The marked decline in the proportions of all infirmities between 1891 and 1901 is therefore a resultant of three causes, a narrower interpretation of the meanings of the terms used, omission to record infirmities fully in certain areas, and omissions in the course of tabulation. It is natural that there should have been a reaction in 1911 against the artificial nature of the decline due to the last two of the three causes. The opportunities for better enumeration in the Specially Administered Territories, and the reform in infirmity slip copying as a result of the experience gained during the compilation of the results in 1901, have undoubtedly been responsible for a large portion, if not all, of the increase recorded in the decade 1901 to 1911.

It is therefore almost impossible to obtain any approach to the true variation in the prevalence of infirmities for the past three decades. The disturbing influences of change of area and errors of record have effectively disguised the real variations by introducing artificial factors of variation into the resultant statistics. It is perhaps not too much to hope that in 1911 a close approach to actuality has been obtained. Lapse of time has enabled previous errors and misinterpretations to be corrected, and the possibilities of disturbance are now less than they have been at any time previously. No advantage will be obtained by a detailed comparison of the figures for 1901 and 1911 for each infirmity, when artificial factors have exercised such a great influence on the statistics recorded.

236. Racial order of Prevalence of Infirmities.—Before considering each infirmity in detail, an examination of the order of prevalence of the several infirmities recorded among the various races of the province, as measured by the proportions of the afflicted per hundred thousand of the population, is interesting. Although there is no absolute coincidence of the orders for the different infirmities, there is a remarkable tendency for certain races to be near the top in each case. Thus the Kadus, the Kachins and the Chins between them monopolise the first place for all four infirmities, and contribute two seconds and three thirds in the tests. In the somewhat allied infirmities of insanity and deaf-mutism, these three races retain the whole of the first three places in the order of prevalence. The three races are somewhat allied, the Chins forming an earlier movement of the Western Tibeto-Burman invasion and the Kachins the later movement of the same invasion, while the Kadus are a hybrid race to which Chins and Kachin, Shan and Burmese have all contributed. Among the Chins and Kachins, local officers are unanimous in attributing the high prevalence of insanity and deaf-mutism to excessive interbreeding, due to lax morality, smallness of villages, and the distance and difficulty of communication

Race.	Order of prevalence.			
	Insanity.	Deaf-mutism.	Blindness.	Leprosy.
Kadu ...	3	2	1	1
Kachin ...	2	1	4	8
Chin ...	1	3	10	3
Intha ...	4	7	3	2
Shan ...	6	5	2	5
Wa-Palaung ...	7	4	5	11
Taungyo ...	5	13	8	4
Danu ...	9	8	6	13
Taungthu ...	8	9	9	12
Chinese ...	14	6	11	9
Burmese ...	10	10	7	6
Karen ...	12	11	12	7
Talaing ...	13	12	13	10
Arakanese ...	11	14	14	14

between separate villages. Locality also, and especially the inclemency of the conditions of life among the hills, the depth of the valleys, and the nature of the water-supply, are also given as causes of a general low standard of health leading to a predisposition to contract specific infirmities. The Inthas, the lake dwellers of the Yawnghwe Lake occupy a comparatively high position for all infirmities, due partly to their manner of life and partly to the smallness of the community. The Shans occupy a somewhat unexpectedly high position, but this is due to the exceedingly high rate of prevalence of the several infirmities in the remote portions of the Northern Shan States where distinctions of race are largely nominal. The low position of the Karens is due partly to the facts that the Taungthus were separately treated, and that most of the Karen Hill Tribes were omitted from the sorting of infirmities, as this took place before the allotment of individual tribes to their main racial designation had been effected. The low position of the Arakanese may indicate that the large admixture of Indian blood contained by this branch of the Burmese race, produces an approximation to Indian conditions and to Indian proportions of infirmity. It may be that the same racial factor is operative among the Talaings, a race greatly influenced in its origin by the original Munda inhabitants of the province. A very general view of the infirmities of the various races of the province suggests that although locality and social customs are important factors in determining the prevalence of disease, race is also a determinant exercising a considerable, even if not primary influence.

237. Co-existence of several infirmities.—It is strange that the enumeration records fail to give any instances of dual infirmities. Considering the high proportions of the recorded infirmities in certain restricted localities, it is certain that some sufferers must have been afflicted with more than one of them. Indeed, the reports from local officers specifically mention the close association of insanity with deaf-mutism. The Superintendent of the Chin Hills reports that there are far more idiots who are also deaf and dumb, than there are sane deaf-mutes. The Deputy Commissioner, Bhamo, mentions the report of the Subdivisional Officer, Shwegu, to the effect that deaf-mutism is associated with lunacy. It is probable that, in the absence of instructions to the contrary in such cases, enumerators wrote the infirmity considered to be most important, or most obvious, and omitted those of less significance. Thus in the case of insanity of a deaf and dumb person, the former would be recorded and the latter omitted. It is unfortunate that the possibility of this error was not anticipated and instructions issued as to the full record in all cases of dual infirmities.

INSANITY.

238. Insanity.—As the census for 1881 comprised only the area then known as British Burma a comparison of the actual amount of insanity in the province cannot be carried beyond the year 1891. But even for this curtailed period, changes of area, differences of interpretation of the meaning of the term, incomplete enumeration of infirmities in the more remote areas and errors in tabulation, render any comparison of the figures of but slight value. It is incredible that with an increase in area in 1901 the number of insane persons should have decreased to such an extent, even allowing for a reduction owing to a more limited interpretation of the term. Confining the analysis to the figures for 1911, it is seen that insanity reaches high proportions in the mountainous regions comprising the Northern Hill Districts and the Specially Administered Territories. The former give proportions of insanity of 65 males and 68 females per hundred thousand of the population, and the latter corresponding proportions of 102 and 105 per hundred thousand, against general proportions of 43 and 36 per hundred thousand for the whole province. It was precisely in these areas of high rates of insanity that the record in 1901 was admittedly incomplete. The districts shewing the highest rates (apart from Rangoon where the figures

Insane (Actual Numbers).

Year.	Males.	Females.
1891	3,795	3,088
1901	3,209	2,308
1911	5,220	4,362

Insanity per 100,000 population by Natural Divisions 1911.

Division.	Males.	Females.
Province	43	36
Central Basin	32	29
Deltaic Plains	33	17
Northern Hill Districts	65	68
Coast Ranges	38	28
Specially Administered Territories.	102	105

are affected by the presence of a large asylum), are the Chin Hills, the Upper Chindwin, Myitkyina and the Northern Shan States Here the marked prevalence of insanity can be traced to the Chins in the Chin Hills, to the Kachins in Myitkyina, to the Kachins, and to a minor extent the Was and Palaungs, in the Northern Shan States, and in the Upper Chindwin to the people of primitive Chin tribes who have adopted the names of the Burmese and the Shan races while still maintaining their primitive customs. The proportion of insanity among the Chins, 321 males and 315 females per hundred thousand of the total population, is so high that there must be some special cause operating beyond the rigorous conditions of life among hill tribes generally. Reference has already been made in Chapter VII to the exceedingly lax morality of the Chins prior to marriage, and to the custom of cousin marriage amongst them. It is to the promiscuous sexual intercourse and close interbreeding that prevail that the high rate of insanity among the Chins must be attributed. The Superintendent of the Chin Hills, Captain J. D. Prothero, is of the opinion that the number of idiots is to a great extent due to constant intermarriage of close relations. He found the numbers of idiots in a small village far greater in proportion than in large villages. As the Chins under his observation seldom married outside their own village the amount of intermarriage between closely related persons became excessive in small villages, and resulted in an undue prevalence of insanity. Similarly among the Kachins, great freedom of sexual intercourse is permitted to children of early age. The amount of interbreeding is greatly modified by the peculiar system of exogamy prevailing, and these prohibitions are observed even in pre-marital intercourse. But perfect freedom of marriage (and of pre-marital intercourse) is permitted between a man and the daughter of his maternal uncle. Mr. Lewisohn, Deputy Commissioner of Bhamo, reports that among the Kachins interbreeding is very common because of the smallness of the ordinary Kachin Village and its distance from other villages. The prevailing system of exogamy does not therefore prevent a considerable amount of interbreeding and first cousin marriage. This, combined with yearly indulgence in sexual intercourse, leads to a large percentage of children being born of immature parents, and accounts for the high rate of insanity amongst them. Thus, among two different races, in localities far from each other, two independent observers have noticed a similar cause producing a similar effect.

Insanity per 100,000 of population in districts of highest intensity.

District.	Males.	Females.
Chin Hills ...	593	619
Upper Chindwin	101	110
Myitkyina	92	74
Northern Shan States ...	82	75

Insanity per 100,000 of population among Chins, Kachins and Wa-Palaungs.

Race.	Males	Females.
Chins	321	315
Kachins	108	125
Wa-Palaungs	53	65

The only provision for segregating the insane is the Lunatic Asylum, Rangoon, with accommodation for about 500 patients. At the date of the census the numbers returned were 365 males and 78 females. The necessary corrections of the proportions of insane for 1911 in the City of Rangoon after excluding the inmates of the asylum who were born in other parts of the province has been given in a footnote to Subsidiary Table I. As the total number of insane recorded is 9,582, the provision for the seclusion of the insane can accommodate less than 5 per cent. of the total insanity of the province.

239. **Local Distribution of Insanity.**—The accompanying map indicates the extent to which the average proportion of insanity for the whole province is the resultant of numerous divergent proportions in different localities. The general average of 43 males and 36 females per hundred thousand of the total population gives a proportion of 79 per hundred thousand for both sexes. But the variations range from 24+11=35 per hundred thousand in Pegu District, to 593 +619=1,212 per hundred thousand in the Chin Hills Administrative Area. Generally speaking it is the lowest in the districts of the Deltaic Plains, more prevalent in the Central Basin and the districts of the Coast Ranges, and reaches its maximum in the hilly districts on the northern frontier of the province, culminating in the administrative area of the Chin Hills. There are three possible explanations of the excess insanity in the northern border districts, locality, social practices, and race. It is probable that each of these three factors contribute

their share. Indeed race is determined largely by locality, and social practices are determined by race. Diversities of race are largely due to the barriers imposed by impassable mountain ranges against free and constant intercommunication. Diversities in social customs follow, and it would be difficult to separate the influences exercised by each factor on the comparative sanity of the people. In the Indian Census Report for 1901, the predominant influence was given to race, the general figures for India as a whole not demonstrating any connection between insanity and local conditions, and giving but little support to the theory that consanguineous marriages have a tendency to produce mental unsoundness. In Burma race is undoubtedly an important factor in the liability of insanity, but in the opinions of local officers the social practices associated with the races showing high proportions of insanity have considerable weight as contributary causes. It seems also probable that the greater the difficulties of communication, the greater will be the possibilities of consanguinity in marriage. The high proportions of insanity in the districts on the northern frontier of the province may therefore be attributed partly to the greater liability of the hill races to insanity, partly to their low stage of civilization and their primitive sexual customs, and partly to influence of the locality in producing and perpetuating these conditions.

MAP SHOWING PROPORTIONS OF INSANITY PER 100,000 POPULATION.

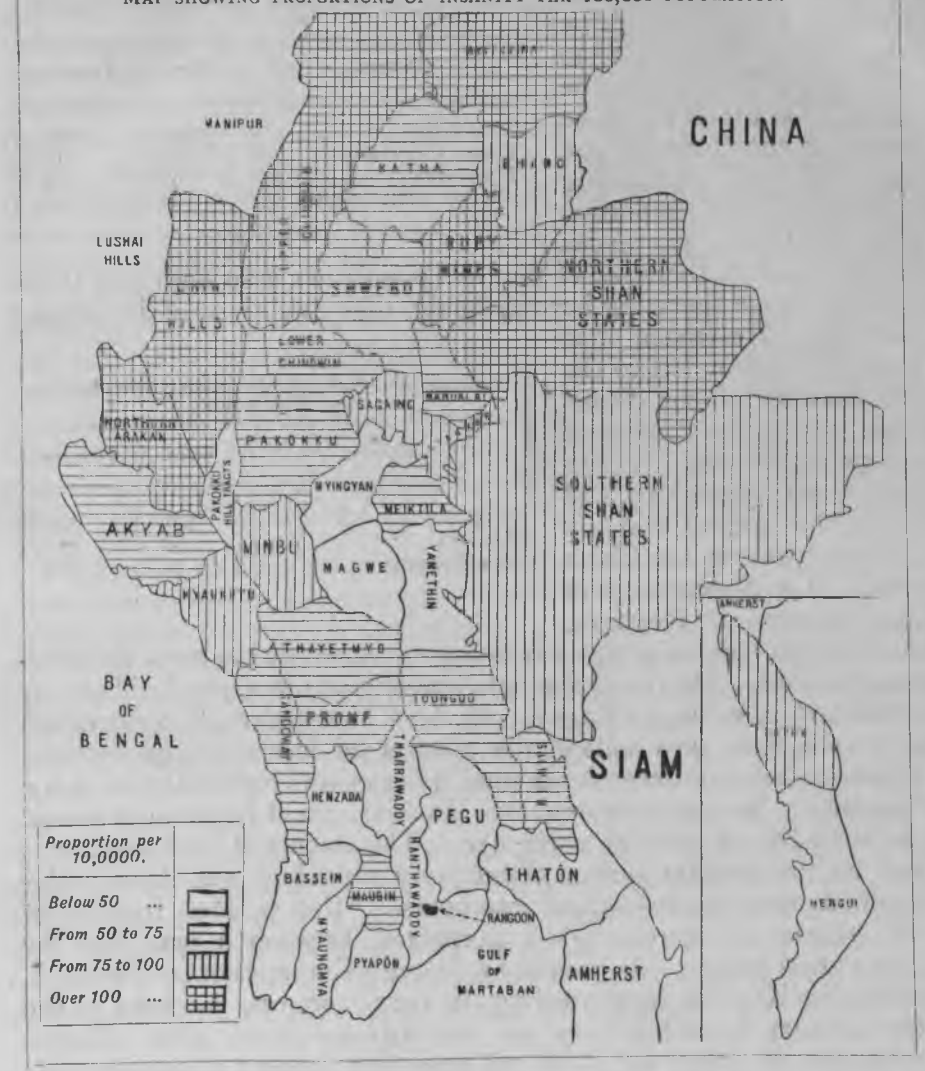
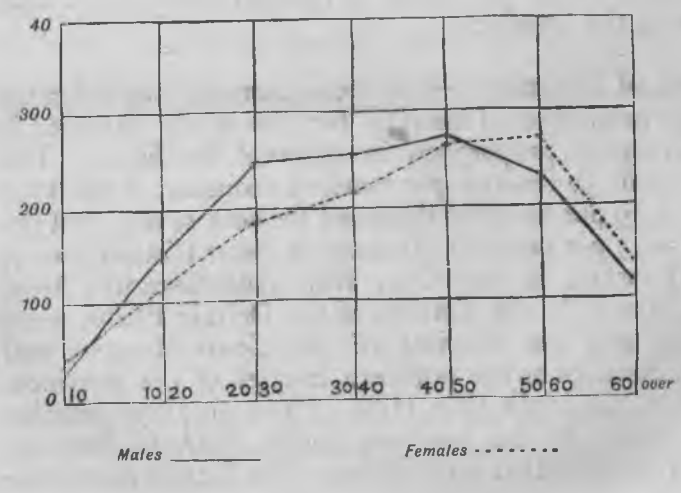


DIAGRAM ILLUSTRATING INSANITY BY DECENNIAL AGE PERIODS PER 100,000 POPULATION.



240. Insanity by age periods.—The annexed diagram shows the proportions of insane persons per 100,000 of the population. It is natural that the proportions should be low in childhood, when mental disease has not made itself

manifest. Among males, it rises rapidly till the age period 20 to 30 arrives, then there is an almost imperceptible increase till the maximum of insanity at the rate of 275 per hundred thousand of the population is reached between the ages 40 and 50. From this period there is a slow decline till the age period 50 to 60, after which there is a rapid decline. After 30 comparatively few males become mentally afflicted, but it is not till between 40 and 50 that the relatively high mortality among the insane is sufficiently great to outweigh the accession of new cases and cause a decline in their proportionate numbers. Among females the rise in the proportion of insanity is much more gradual than among males. It is not till the age period 40 to 50, corresponding with the change of life, that the proportion of insanity approximates to that of males. The proportion of female insanity continues to rise till the age period, 50 to 60, indicating that the new cases still outnumber the mortality among the insane at this period. This continued rise places the proportion of female insanity at a higher rate than that of male insanity. After this period the proportion continues to decline, the rates of decrease of male and female insanity being approximately equal.

Insanity by decennial age periods per 100,000 of the population.

Age.	Males.	Females.
0—10 ...	29	30
10—20 ...	142	109
20—30 ...	241	187
30—40 ..	257	218
40—50 ...	275	266
50—60 ...	233	274
60 and over ...	104	126

241. Insanity by Race.—There are many signs that the records of insanity among the population in the more remote portions of the province are still defective. The disparity between male and female insanity among the Kadus, Taungyos and Taungthus indicates defective records. The extremely high proportions of insanity among the Chins and the Kachins has already been the subject of discussion. The low position in the scale, of the Burmese, the Arakanese and the Talaings who are all plain-dwellers, leads to the conclusion that there is a greater predisposition to insanity among the hill races of the province. The Karens whose infirmities have been tabulated are almost exclusively plain-dwellers, the hill Karens being excluded because at the time of sorting for infirmities only the members of the main race and the easily identifiable tribes could be sorted. The low rate of insanity among the Karens may therefore be taken as confirming the conclusion that it is among the hill races that insanity is most prevalent. The Inthas, a tribe of lake-dwellers of Burmese race, living on the Yawnghwe Lake in the Southern Shan States have a high rate of insanity, indicating that locality, environment and social customs may modify the rate of insanity to a considerable extent.

Insanity by race per 100,000 population.

Race.	Total.	Males.	Females.
Chin ...	666	321	315
Kachin ...	233	108	125
Kadu ...	179	9	170
Intha ...	178	85	93
Taungyo ...	157	20	137
Shan ...	129	68	61
Wa-Palaung ...	118	53	65
Taungthu ...	84	17	67
Danu ...	68	41	27
Burmese ...	65	37	28
Arakanese ...	60	36	24
Karen ...	46	27	19
Talaing ...	34	23	11
Chinese ...	23	16	7

The figures for insanity in the four districts of Arakan suggest that, with increasing contact with civilization a lower rate of insanity is induced among the Chins. The generally higher rates of insanity for these districts in earlier years is due to the large numbers of Chins, but recently arrived from the purely Chin country. Allowing for such obvious mistakes as the under-estimate of masculine insanity in Northern Arakan in 1881, and the general artificial decline in insanity in 1901, there would appear to have been a progressive improvement extending throughout the past thirty years. It is difficult to determine the degree of reliance to be placed on the figures. For instance, it is highly probable that the amount of

Insanity per 100,000 of the population for Arakan Districts.

District.	Males.				Females.			
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.
Akyab ...	43	28	53	79	31	15	37	45
Northern Arakan ...	58	126	130	55	72	73	55	76
Kyaukpyu ...	51	32	58	121	31	19	35	60
Sandoway ...	37	29	54	107	27	16	38	75

insanity in the current census for the Northern Arakan District has been under-recorded. But on the whole a substantial reduction in the proportion of insanity appears to have been effected, and this must have occurred among the Chin population which caused the abnormally high rates during the earlier enumerations.

DEAF-MUTISM.

242. Deaf-mutes.—The marked increase in the numbers of deaf-mutes over those for 1891 and 1901 is due to facts already noticed. Since 1891, census operations have been extended into regions where the infirmity is markedly prevalent, the figures for 1911 including for the first time the full records for the infirmities of such regions. The proportion of 71 (39 males and 32 females) per hundred thousand of the population is no indication whatever of the general prevalence of deaf-mutism over the province generally. It is unduly enhanced by excessive proportions in two of the natural divisions of the province. It is the resultant of proportions so widely divergent as 45, 33 and 43 per hundred thousand for the districts of the Central Basin, the Deltaic Plains and the Coast Ranges respectively, on the one hand, and 234 and 209 for the two remaining natural divisions, on the other. Omitting the intervening year 1901 it is seen that for the two main natural divisions of the province the Central Basin and the Deltaic Plains, the proportions have diminished for both males and females. In the districts of the Coast Ranges there has been a minor increase of one point for each sex. The increase of proportions for the province is due to the two remaining divisions, the Specially Administered Territories being brought into the census area, and the census operations in the Northern Hill Districts being extended to include those regions where deaf-mutism is markedly prevalent. There has therefore been no increase of deaf-mutism within the province, the high proportions in comparison with previous years being due to the facts that the records of infirmities for 1891 and 1911 are for different areas and that the added areas have no similarity of conditions with those previously included.

Deaf-mutes (Actual numbers).

Year.	Males.	Females.
1891	2,150	1,754
1901	1,731	1,112
1911	4,731	3,833

Deaf-mutism per 100,000 population by Natural Divisions 1911.

Division.	Males.	Females.	Total.
Province ...	39	32	71
Central Basin ...	25	20	45
Deltaic Plains ...	20	13	33
Northern Hill Districts ...	122	112	234
Coast Ranges ...	27	16	43
Specially Administered Territories.	108	101	209

Comparison of deaf-mutism per 100,000 population for 1891 and 1911.

Division.	Males.		Females.	
	1911.	1891.	1901.	1891.
Province	39	29	32	23
Central Basin ...	25	33	20	31
Deltaic Plains ...	20	23	13	17
Northern Hill Districts	122	35	112	32
Coast Ranges ..	27	26	16	15
Specially Administered Territories.	108	...	101	...

243. Local distribution of deaf-mutism.—The most noticeable feature of the map shewing the distribution of deaf-mutism over the province is the fringe of districts of high prevalence around its northern borders. There is a straggling continuation of moderate prevalence through the Pakôkku, Minbu, and Sandoway districts due to the southern extension of the Chins, and a rather high proportion in Tavoy. The remaining districts have a proportion of deaf-mutism of less than 50 per hundred thousand of the population. The districts where the infirmity is most prevalent are Bhamo, Myitkyina, the Chin Hills and the Northern Shan States. An examination was made of the sorting registers to see if the areas of greatest prevalence of deaf-mutism could be still further

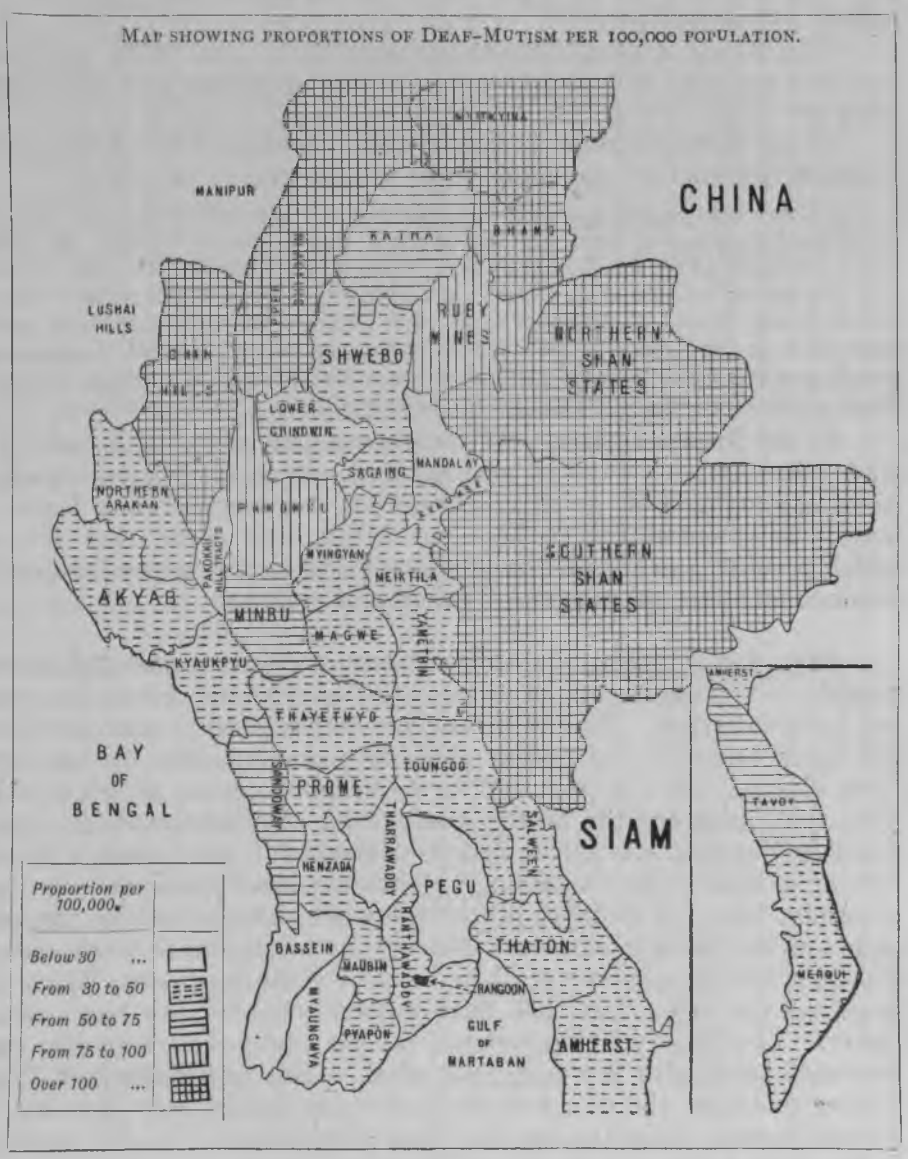
Proportions of deaf-mutes per 100,000 in district of greatest prevalence.

District.	Total.	Males.	Females.
Chin Hills ...	401	223	178
Northern Shan States	350	177	173
Bhamo ...	474	236	238
Myitkyina ...	474	271	203

localised. In Bhamo it was found to be most prevalent in the Shwegu Kachin Hills with a percentage of 7·05 (3·48 males and 3·57 females) of the total population affected. In Myitkyina it was found to be most prevalent in the Sadon and Sima Kachin Hills. In the Northern Shan States, it was traced to six Kachin Circles and two Shan Circles of the North Hsenwi States and in the Chin Hills it was most prevalent in the Falam Subdivision. In view of this localisation an attempt was made to see if it was possible to arrive at any conclusions similar to those suggested in paragraph 247 of the India Census Report for 1901 as follows:—

"The connection of deaf-mutism with cretinism and goitre has already been noticed, and all these maladies have been assigned, with apparent reason, to the injurious properties of the water of certain rivers, especially those which flow from the Himalayas, such as the Chenab, the Gandak and the Makhna. This aspect of the subject has been investigated with some fulness in the Bengal Census Report and it has been shown that, in the districts where deaf-dumbness is most prevalent, it haunts the banks of the Burhi Gandak, the Dhanauti and the Bagmati, and that it rapidly diminishes as the distance from these rivers increases. Mr. Burnin the United Provinces points out that the infirmity is chiefly found on the new alluvium deposited by the Ghagra, Gandak and Rapti, *i.e.*, presumably in the tracts where the supply is obtained from these rivers. In Burma and Assam the hilly country has a higher ratio of deaf-dumbness than the open lowlands, but the reports do not show whether it is diffused evenly throughout the hills or is confined mainly to the river valleys that intersect them. In Madras it is said that no connection is apparent between mountainous tracts and this infirmity and that no correlation can be traced between it and locality. It is possible that the failure may be due to the district having been taken as the unit of comparison, and that if the ratios for smaller areas were examined, the influence of certain localities or sources of water-supply might be established."

MAP SHOWING PROPORTIONS OF DEAF-MUTISM PER 100,000 POPULATION.



244. **Association of deaf-mutism with cretinism and goitre.**—As regards the connection of deaf-mutism with cretinism and goitre in the localised areas where the former is most prevalent, Mr. W. A. Hertz, C.S.I., Deputy Commissioner, Myitkyina, writes:—

"All these diseases may be connected in some way as it is rare to see a cretin or deaf-mute who is not also suffering from goitre. The people themselves are unable to ascribe

any reason for the prevalence of these diseases except as regards goitre, which they put down to the white salt they have been able to obtain since the taking over of the country by Government. This however is absurd. I also can advance no theory regarding the prevalence of goitre, except the commonly accepted one that it is prevalent in all mountainous countries and is due to some substance in solution in drinking water. It may be aggravated by the Kachin custom of consuming large quantities of lime in powdered form. Their habit of carrying heavy loads suspended by a band round the forehead may, by throwing an undue strain on the muscles of the neck, increase the growth among those who have already contracted the disease. I have also heard that there are more goitrous people in villages that see little of the sun than in villages that are better situated in this respect."

Captain J. D. Prothero, Superintendent of the Chin Hills, states that there is no doubt that deaf-mutism is often connected with goitre and cretinism, but the following extract from his report shews that goitre is also even more closely connected with insanity :—

"The amount of goitre in the district especially in parts of the Haka subdivision has increased very much in the last twenty years and I should say that two out of every three idiots are afflicted with goitre."

In the Northern Shan States, Mr. H. Thornton, C.S., writing of the circles in which deaf-mutism was found to be most prevalent, states :—

"There is little goitre among the inhabitants of the valley but the hill villages of the Hsanghkehpong and of Se-u are full of cases and in these villages the people probably drink the water of the small hill streams. The Mongwun circle and the Hsaikao circle are also drained by feeders of the Namtu and goitre is very prevalent there also. The Mong Htam, Mong Si, and Kangmong circles are drained by the Nam Nim which enters the Salween near the Kunlon ferry. These circles are full of goitre. Kangmong, where the people are especially poor, is particularly so. The Mong Ya circle is drained by the Nam Mwe which flows into the Salween. Goitre is also very noticeable here."

In the Bhamo District deaf-mutism was associated with lunacy rather than with goitre, but one case is mentioned in which amongst a family containing cases of exophthalmic goitre and cretinism, one member was found to be a deaf-mute. From these reports there can be but little doubt that the same causes which produce an excessive proportion of deaf-mutes in any locality also tend to produce an abnormal amount of goitre and cretinism.

245. Association of deaf-mutism, cretinism and goitre with water-supply.—The association of these diseases with the water of certain rivers is not quite so certain. In the Myitkyina District goitre is associated with the drinking water and with the consumption of powdered lime by the Kachins. The three diseases are also reported to be more common among the Kachins, the Tsis, the Lashis and the Marus, who inhabit the lower valleys, than among the Lisus or Yawyins who live at a higher elevation. But although the question was definitely asked, there is nothing to shew any association with the course of any particular river. The depth of the valley of residence and the degree of impregnation of the drinking water with foreign matter appear to be the principal causes to which the diseases are attributed. The Superintendent, Chin Hills, directly negatives the suggestion that deaf-mutism might follow the course of certain rivers. The Deputy Commissioner, Bhamo, states that there does not seem to be any association with any particular river. The Superintendent, Northern Shan States, finds that the circles in which deaf-mutism is most prevalent are drained by the Namtu, Nam Nim and the Nam Mwe Rivers. In the valleys of the two latter rivers, goitre is very noticeable. In the case of the Namtu, goitre is scarce in the broad valley of the main stream, where owing to the foulness of the water the villagers use water from wells; but it is prevalent in the high villages where water is taken from the hill streams feeding the main river. Thus while it is obvious that the series of diseases is intimately connected with the local water-supply, it is only in the Northern Shan States that they can be traced to the use of water from any particular streams.

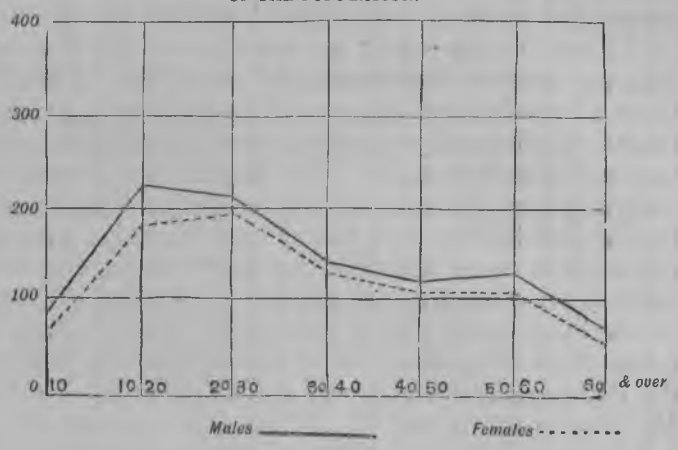
Deaf-mutsim by decennial age periods per 100,000 of the population.

Age.	Males.	Females.	Total.
0—10	87	65	152
10—20	223	180	403
20—30	210	194	404
30—40	139	134	273
40—50	120	115	235
50—60	125	113	238
60 and over	81	53	134

246. Age and sex distribution of deaf-mutism.—As in the case of leprosy, the proportion of deaf-mutism among females remains below that of males throughout the entire series of age periods, whereas for insanity and blindness the proportions for females after a certain age

rise above those for males. The lower proportion among females in the case of deaf-mutism is probably a genuine phenomenon, whereas the low proportion of female lepers is probably due to concealment. In contradistinction to the infirmities of insanity and leprosy which attain their maximum proportions in the later period of middle age, and with bliodness which attains its maximum in old age, deaf-mutism attains its maximum during early life. Among males its maximum is reached during the age period 10 to 20 when 223 per hundred thousand of the total population are afflicted. Among females it does not attain its maximum till the period 20 to 30 when there are 194 female deaf-mutes per hundred thousand of the population. The joint proportions are approximately the same for the two age periods, being 403 and 404 per hundred thousand from 10 to 20 and from 20 to 30 respectively. From this later age period the proportions decline with advancing age, a slight contrary movement being apparent among the males at the age period 50 to 60. The conclusion to be drawn from the decline is that the mortality among deafmutes is greater than the mortality among the general population, the survivors forming a decreasing proportion of the population at the later ages.

DIAGRAM SHOWING DEAF-MUTISM BY AGE PERIODS PER 100,000 OF THE POPULATION.



247. Racial proportions of deaf-mutism.—The prevalence of deaf-mutism among the Kachins is so markedly in excess of that of any other race in the province that it would seem to be a peculiarly racial infirmity. It is however undoubted that social practices and locality have considerable influence quite apart from race. The localities in which the Kachins dwell, the valleys and the steep hillsides of the northern and north-eastern frontier of the province, contain all the conditions favouring the prevalence of this and other cognate diseases. Apart from locality, mention has already been made of the Kachin practice of consuming large quantities of lime in powdered form. But it is to the sexual and marital customs of the Kachins that local officers attribute their liability to this and to kindred diseases. Mr. Lewisohn, Deputy Commissioner, Bhamo, states that the only theory he can advance is that deaf-mutism may be due to excessive interbreeding, which is very common because of the smallness of the ordinary Kachin village and its distance from other villages. Mr. Hertz, Deputy Commissioner, Myitkyina, is of a similar opinion as will be seen from the following extract from his report on the subject.

Racial proportions of deaf-mutism per 100,000 of the population.

Race.	Total.	Males.	Females.
Kachin ...	1,004	517	487
Kadu ...	295	125	170
Chin ...	252	141	111
Wa-Palaung ...	215	97	118
Shan ...	150	79	71
Chinese ...	148	75	73
Intha ...	80	44	36
Danu ...	79	49	30
Taungthu ...	59	14	45
Burmese ...	50	27	23
Karen ...	40	25	15
Talaing ...	35	24	11
Taungyo ...	30	15	15
Arakanese ...	29	16	13

"As regards the two latter diseases (cretinism and deaf-mutism) I am inclined to think that hereditary causes have a great deal to do with their prevalence. By the rules of morality in force among the Kachins great freedom is allowed before marriage to the young of both sexes, and they may consort more or less as they please, as long as they avoid the forbidden degrees of consanguinity. These degrees do not however forbid the consorting of a man with the daughter of his mother's brother, so that the marriage of first cousins is possible. The result is that boys and girls indulge in sexual intercourse as soon as they obtain puberty, and, the birth of a bastard throwing no blot on the moral character of the woman, a large percentage of children are born of immature parents, who themselves may have been the issue of the same kind of union."

In the same connection Mr. Thornton, Superintendent, Northern Shan States, reports concerning the circles of high prevalence of deaf-mutism :—

"In all these circles Kachins, Shans, Palaungs, Chinese and Lishaws appear to suffer equally from goitre, though the Kachins are the more degraded as might be expected from the greater immorality, or rather want of morality, among the Kachin women before marriage."

Thus the extremely lax morality of the Kachins, although perhaps not the primary cause of the remarkable proportion of deaf-mutism among them appears to be a contributory cause and to lead to a generally low standard of general health, which readily develops into deaf-mutism and other cognate diseases in a favourable environment. The Kadus are a small community which from their insignificance managed to evade special enquiry in this respect. They are a hybrid race having both Chins and Kachins among their progenitors. It does not seem to be an accident that they are placed between these two races in the order of prevalence of this infirmity. Among the Chins, deaf-mutism is associated by the local authorities with insanity and both are in turn considered to be the result of interbreeding. The high proportions of deaf-mutism among the Was, the Palaungs, the Shans and the Chinese may be considered in connection with Mr. Thornton's report that in certain circles Kachins, Shans, Palaungs, Chinese and Lishaws appear to suffer equally from goitre. This suggests that goitre and consequently the deaf-mutism with which it is associated is a question of locality rather than of race.

BLINDNESS.

248. Blindness.—The numbers suffering from blindness in, common with those of the remaining infirmitios recorded, shew a considerable increase over the figures for 1901, and a less marked increase over the figures for 1891. The difference between the figures for 1901 and 1911 is not evenly distributed throughout the province, being marked in the Northern Hill Districts and the Specially Administered Territories, and much less distinct in the remaining three natural divisions of the province. In 1901 Mr. Lowis drew special attention to the fact that the ratios of blindness for each sex in the Upper Burma dry division (corresponding with the Central Basin) were much greater than in the Upper Burma wet division (corresponding with the Northern Hill Districts and the Specially Administered Territories). But for the current census the ratios are reversed. The amount of blindness per hundred thousand of the population is 203 in the Central Basin against 217 in the Northern Hill Districts and 235 in the Specially Administered Territories. This reversal is due to the fact that infirmities in 1901 were not fully recorded in the Northern Hill Districts and the Specially Administered Territories. The records for the current census do not appear to substantiate the conclusions previously drawn as to the predominating influence of the dryness of the district and the glare of the sun, on the amount of blindness. It is true that the drier districts of the Central Basin have much higher proportions of blindness than those of the Deltaic Plains or the Coast Ranges with their abundant rainfall. But these in their turn are exceeded by the proportions for the Northern Hill Districts and the Specially Administered Territories, with distinctly higher rainfalls than are experienced in the Central Basin. Mr. Lowis mentions two main causes of blindness in Burma, the glare of the sun, and small-pox. To these, a third ophthalmia, should be added. To a resident of Lower Burma, the prevalence of this disease in the dry zone districts of Upper Burma is most noticeable. It is to this cause that the higher proportion of blindness in the Northern Hill Districts and Specially Administered Territories is probably due.

Blindness (Actual Numbers).

Years.	Males.	Females.
1891	6,681	8,553
1901	5,556	5,966
1911	8,066	8,869

Blindness per 100,000 population by Natural Divisions 1911

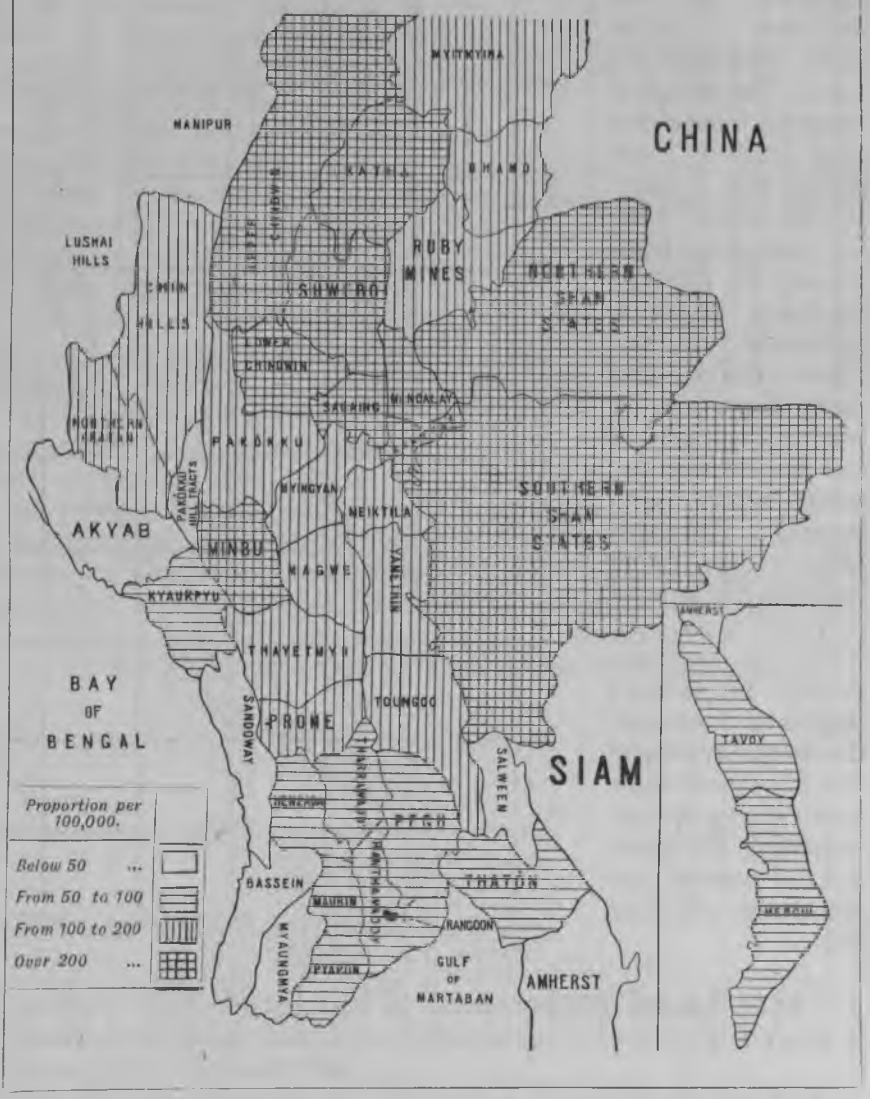
Divisions.	Males.	Females.
Province	67	73
Central Basin	91	112
Deltaic Plains ...	37	31
Northern Hill Districts	105	112
Coast Ranges ...	28	20
Specially Administered Territories.	108	127

Proportional blindness in 1901 and 1911 per 100,000 population.

Division.	1911.	1901
Province	140	112
Central Basin	203	197
Deltaic Plains	68	59
Northern Hill Districts	217	138
Coast Ranges	48	32
Specially Administered Territories.	235	85

249. Local distribution of blindness.—The appearance of the map designed to show the prevalence of blindness suggests that there are three zones of differing intensity running generally parallel with the coast line. The lowest proportion of blindness is to be found in the coast and delta districts, where the proportion is less than 100 per hundred thousand inhabitants generally, falling to less than 50 per hundred thousand on the Arakan and Tenasserim coasts. The intermediate zone is a diagonal stretch of country of fairly uniform breadth extending from the Chin Hills in the north-west to the Toungoo district in the south-east. In this the proportion of blindness lies between 100 and 200 per hundred thousand, the single exception being Minbu which just slightly exceeds the upper limit with a proportion of 202 per hundred thousand. The third zone includes the remaining portion of the province, three districts only, Myitkyina, Bhamo and the Ruby Mines, falling below the proportion of blindness of 200 per hundred thousand of the inhabitants. It is not suggested that the general direction of the zones, with their lines of demarcation parallel with the sea coast, is anything more than a coincidence, but it affords the best method of explaining the general distribution of the prevalence of blindness over the province. In particular it brings to notice the striking fact that the districts of Pakôkku, Myingyan and Magwe in the heart of the dry zone of the province do not constitute the region of maximum intensity.

MAP SHOWING PROPORTIONS OF BLIND PER 100,000 POPULATION.



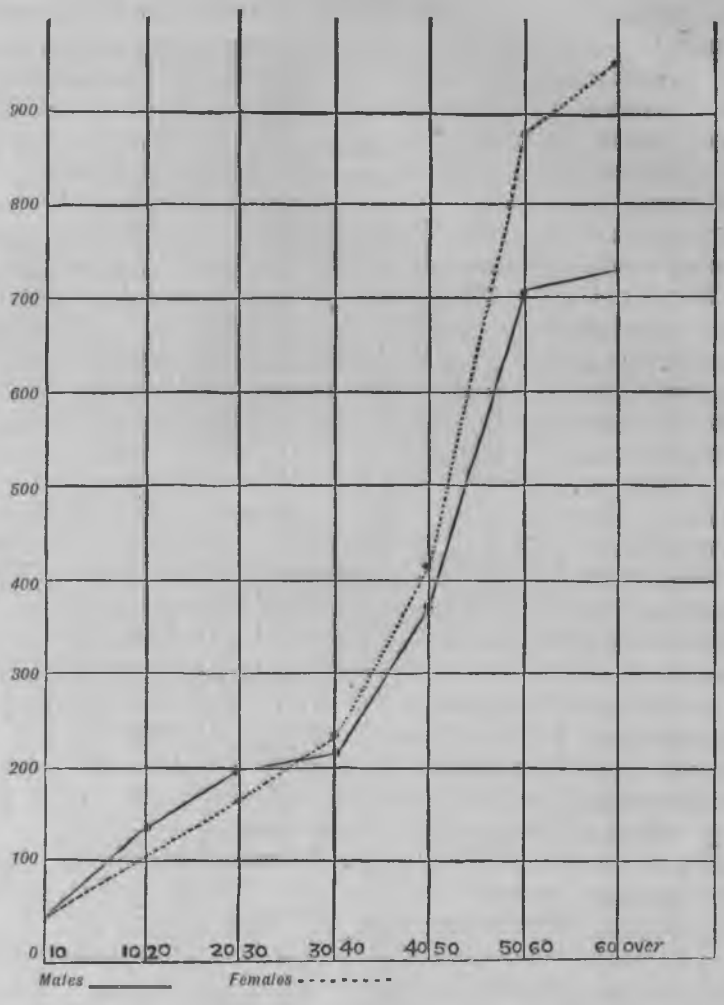
250. Age and sex distribution of blindness.—Of the four infirmities recorded, blindness is the only one in which women are afflicted to a greater extent than men. An analysis by age periods suggests that in the earlier ages males suffer more from this infirmity than females; but at about thirty years of age the proportion of blind females to the total population becomes greater than that of males, and continues throughout all succeeding age periods at an increasingly high level. It is probable that the large amount of time spent by women in domestic labour, in dark and badly ventilated houses, with a smoke-laden atmosphere, is the cause of their increasing propensity to blindness at the higher

Blindness by decennial age periods per 100,000 of the population.

Age.	Males.	Females.
0—10 ...	55	43
10—20 ...	133	101
20—30 ...	173	166
30 · 40 ...	212	232
40—50 ...	392	410
50—60 ...	701	862
60 and over ...	727	969

ages. It is natural that the age distribution of blindness should differ greatly from that of the other recorded infirmities. Congenital deaf-mutism is essentially an affliction of the earlier periods of life. The large mortality among the leprous and the insane prevent a large proportion of the persons suffering from these infirmities from attaining an advanced age. But blindness is an infliction peculiarly affecting old age. The marginal diagram indicates that among both males and females it advances with increasing age from infancy till the age of thirty at but a moderate rate. Between thirty and forty there is a marked increase in the proportions for both sexes. The increase becomes still more rapid between the ages of fifty and sixty. At sixty the increase in the proportions begins to moderate, the mortality among the blind over sixty years of age almost balancing the number of persons on whom the affliction falls.

DIAGRAM ILLUSTRATING PROPORTION OF BLINDNESS PER 100,000 OF THE POPULATION.



251. Racial proportions of blindness.—The marginal statement gives in order of prevalence the proportions of blindness recorded among the more important races of the province. The Chins so pre-eminent in the remaining infirmities have a low proportion of blindness. The Kadus are a hybrid community of 11,196 persons only, and their high proportions are calculated from a recorded affliction of 27 males and 33 females only. The prevalence of blindness among the Shans, the Kachins, the Wa-Palaungs and the Danus suggests that the influence of the glare of the sun in the dry zone is not the pre-potent cause of a high ratio of blindness. Among the Inthas it is possible that the glare of the sun or the water is a cause of a high prevalence of blindness among a race of lake-dwellers.

Racial proportion of blindness per 100,000 of the population.

Race.	Total.	Males.	Females.
Kadu ...	536	241	295
Shan ...	305	152	153
Intha ...	245	97	148
Kachin ...	234	139	95
Wa-Palaung ..	196	91	105
Danu ...	191	82	109
Burmese ...	153	75	78
Taungyo ...	127	56	71
Taungthu ...	97	26	71
Chin ...	88	44	44
Chinese ...	48	28	20
Karen ...	43	21	22
Talaing ...	34	22	12
Arakanese ...	30	20	10

LEPROSY.

252. Leprosy.—The actual number of lepers, as in the case of the sufferers from other infirmities, is considerably greater than in 1901, and but moderately greater than in 1891. The proportion of lepers to the total population is however much smaller than in 1891, as will be seen by a reference to the marginal statement and diagram illustrating paragraph 233 above. Omitting the enumeration for 1901, for which the figures were unduly depressed, there has been a decrease

in the proportion of lepers since 1891 from 87 (61 males and 26 females) to 58 (40 males and 18 females) per hundred thousand of the population. There is a greater uniformity in the distribution of this disease over the various divisions of the province than is to be found for the remaining infirmities. But if individual districts are considered, the proportions have an extremely wide range of variation, from 6 per hundred thousand in the Sandoway District to 198 per hundred thousand in the Northern Arakan District of the same natural division. The general distribution of leprosy by districts appears to follow no ascertainable rule. The most marked characteristic of the map showing the distribution of leprosy is the low proportion of the five sea-coast districts Akyab, Kyaukpyu, Sandoway, Tavoy and Mergui. This would appear to effectively dispose of the theory of Dr. Hutchinson that leprosy is caused by a bacillus introduced into the stomach by means of badly cured fish eaten in a state of partial decomposition and not sufficiently cooked. Dr. Hutchinson himself however anticipated the possibility of such conclusions being drawn and contended that as a very small quantity of tainted fish may suffice to introduce the bacillus and as a long period is necessary before its results will be observed, it is not surprising that in India leprosy is often found in regions at a distance from rivers and seas and where comparatively little fish is consumed.

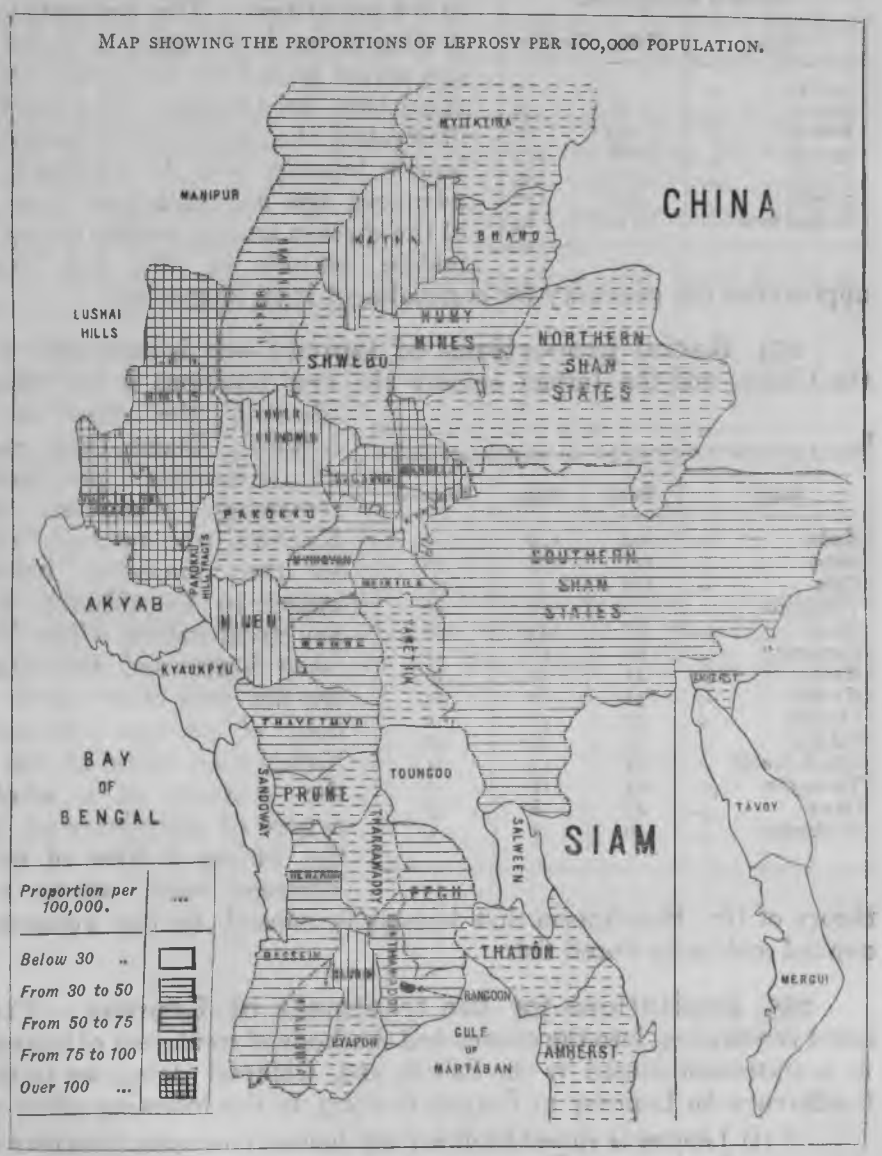
Leprosy (Actual Numbers).

Year.	Males.	Females.
1891	4,543	1,921
1901	2,940	1,250
1911	4,842	2,196

Leprosy per 100,000 population by Natural Divisions 1911.

Divisions.	Males.	Females.
Province ...	40	18
Central Basin ..	47	24
Deltaic Plains .	41	14
Northern Hill Districts.	36	21
Coast Ranges ...	16	7
Specially Administered Territories.	44	27

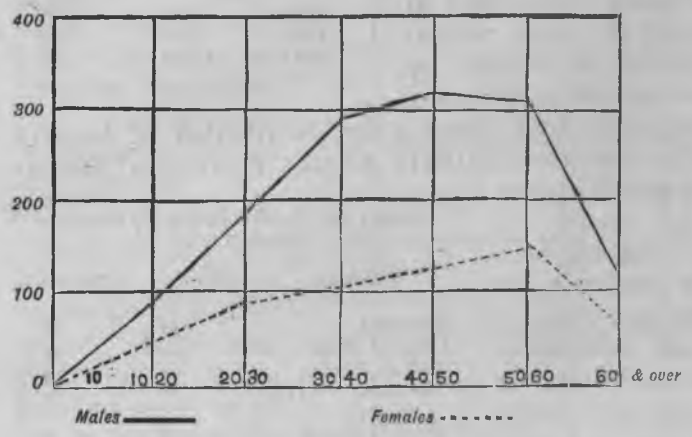
MAP SHOWING THE PROPORTIONS OF LEPROSY PER 100,000 POPULATION.



The comparative absence of leprosy in coast districts would appear to be a stronger argument against the theory, than its presence in regions remote from seas and rivers. However the theory has not yet succeeded in receiving general acceptation. Apart from the comparative immunity of the coast districts from leprosy no rule for its general distribution by locality can be formulated. It cannot be said to bemore prevalent in wet districts than in dry districts or *vice versâ*, nor does the contour of the country or the diversity of its surface appear to have any appreciable effect on the prevalence of this infirmity.

253. Sex and age distribution of leprosy.—A reference to the diagram illustrating paragraph 233 above will indicate that the excess of males afflicted is greater in the case of leprosy than in any of the remaining infirmities recorded. There does not appear to be any *á priori* reason why males should suffer more than women from leprosy, and it is highly probable that the concealment of this disease among females is one cause of the low proportion of female leprosy recorded. The disease is so abhorred that it is concealed as long aspossible, and both the motives for, and the possibilities of, concealment are greater for women than for men. Up till the age of fifty, the proportions of leprosy among males increase with each succeeding age period more rapidly than they increase among females. The proportions attain a maximum among males at the age period 40 to 50, when there are 317 males per hundred thousand of the total population afflicted with this disease. They do not attain their maximum among women till the age period 50 to 60, when there are 176 female lepers per hundred thousand of the population. The proportions commence to decline earlier in the case of males and after the age period 50 and 60, the decline for males is more rapid than for females. The fact that the curves illustrating the respective proportions of male and female leprosy tend to approach each other at advanced age, indicates that there is concealment of the disease among women during the earlier and middle periods of life, but that as old age approaches the necessity for concealment is no longer felt.

DIAGRAM ILLUSTRATING THE PROPORTION OF LEPERS PER 100,000 OF THE POPULATION BY AGE PERIODS.



Leprosy by decennial age periods per 100,000 of the population.

Age.	Males.	Females.
0—10 ...	7	5
10—20 ...	84	49
20—30 ...	194	96
30—40 ...	288	117
40—50 ...	317	135
50—60 ...	301	176
60 and over ...	116	64

254. Racial proportions of leprosy.—It is noticeable that the Kadus, the Chins, and the Inthas occupy the first positions in the marginal statement shewing the order of prevalence of leprosy. These three races also shew an unenviable pre-eminence in the remaining infirmities recorded. The Kachins, who are high up in the scale for the remaining infirmities, do not appear to be afflicted with leprosy to any great extent. The Taungyos of the Shan States and the Shans themselves are the only other races having proportions of persons afflicted with leprosy higher than those of the Burmese or of the province as a whole. The high degree of prevalence of leprosy among the Inthas a tribe of lake dwellers of Burmese race, seems to support the theory of Dr. Hutchinson that leprosy is caused by the consumption of partly cooked and badly cured fish

Racial proportions of leprosy per 100,000 of the population

Race.	Total.	Males	Females.
Kadu ...	304	179	125
Intha ...	231	155	76
Chin ...	124	90	34
Taungyo ...	122	76	46
Shan ...	81	43	38
Burmese ...	67	46	21
Karen ...	41	31	10
Kachin ...	37	22	15
Chinese ...	32	31	1
Talaing ...	27	21	16
Wa-Palaung ...	27	13	4
Taungthu ...	23	18	5
Danu ...	15	8	7
Arakanese ...	6	2	4

255. Institutions for the treatment of Leprosy.—The results of the latest researches, into the causes and methods of treatment of leprosy are contained in a statement issued by the British and Colonial delegates to the International Conference on Leprosy at Bergen in 1909, to the following effect :—

"(1) Leprosy is spread by direct and indirect contagion from persons suffering from the disease. The possibility that indirect contagion may be effected by fleas, bugs, lice, the itch parasite, etc., has to be borne in mind. Leprosy is most

prevalent under conditions of personal and domestic uncleanliness and overcrowding, especially where there is close and protracted association between the leprous and non-leprous.

(2) Leprosy is not due to the eating of any particular food, such as fish.

(3) There is no evidence that leprosy is hereditary; the occurrence of several cases in a single family is due to contagion.

(4) In leprosy an interval of years may elapse between infection and the first recognised appearance of disease. It is a disease of long duration, though some of its symptoms may be quiescent for a considerable period and then recur.

(5) The danger of infection from leprous persons is greater when there is discharge from mucous membranes or from ulcerated surfaces.

(6) Compulsory notification of every case of leprosy should be enforced.

(7) The most important administrative measure is to separate the leprous from the non-leprous by segregation in settlements or asylums.

(8) In settlements, home life may be permitted under regulation by the responsible authorities.

(9) The preceding recommendations, if carried out will provide the most efficient means of mitigating the leper's suffering and of assisting in his recovery, and at the same time will produce a reduction and ultimate extinction of the disease.

It is therefore of importance to ascertain the extent to which segregation, described as the most important administrative measure in connection with the treatment of leprosy has been effected.

There are four institutions for the treatment of leprosy in the province of Burma as follows :—

(i) St. John's Leper Asylum, Mandalay, administered by the Catholic Mission in Upper Burma. It maintains an average of 230 inmates daily.

(ii) The Home for Lepers, Mandalay, founded in 1890 by the "Mission to Lepers in India and the East", and managed by the English Wesleyan Mission. It maintains a daily average of about 160 inmates.

(iii) Kemmendaing Leper Asylum, Rangoon, founded by the Catholic Mission in Southern Burma, and managed by the Sisters Franciscan Missionaries of Mary. It has accommodation for over 100 inmates.

(iv) Moulmein Leper Asylum, founded in 1899 by the American Baptist Mission. It has accommodation for 50 inmates.

These have been assisted by contributions from Government and local funds to the following extent during the past decade :—

Asylum.	Station.	Maintenance of lepers.	Salaries.	Building.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
St. John's Leper Asylum ...	Mandalay	98,930 15 11	24,360 0 0	34,877 10 0
Home for Lepers ...	Mandalay	74,458 2 6	...	4,000 0 0
Kemmendaing Leper Asylum	Rangoon ...	53,149 0 0	17,140 0 0	35,425 0 0
Leper Asylum ...	Moulmein	5,264 0 0	828 0 0	500 0 0

It will be seen that the asylum accommodation is sufficient for about 540 patients only, whereas the total number of sufferers in the province is 7,038. Less than 8 per cent. of the lepers in the province can be segregated with the existing accommodation.

SUBSIDIARY TABLE I.—*Number afflicted per* 100,000

District and Natural Division.	Insane.								Deaf			
	Male.				Female.				Male.			
	1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881
1	2	3	4	5	6	7	8	9	10	11	12	13
Province	43	81	51	68	36	23	41	44	39	17	29	42
I. Central Basin ..	*32*	*34*	*56*	*68*	*29*	*32*	*59*	*53*	*25*	*19*	*33*	*40*
Prome	39	33	45	71	20	19	31	56	20	10	31	40
Thayetmyo	41	32	44	62	23	28	31	48	27	7	10	40
Pakôkku	38	48	59	...	35	50	66	...	46	44	50	...
Minbu	64	44	75	...	34	41	101	...	28	27	44	...
Magwe	23	41	63	...	19	42	72	...	26	30	37	...
Mandalay	35	26	62	...	35	22	54	...	15	9	34	...
Shwebo	22	26	27	...	33	24	41	...	27	19	14	...
Sagaing	37	40	60	...	41	42	77	...	25	16	33	...
Lower Chindwin ...	30	28	80	...	32	28	80	...	26	20	42	...
Kyauksè	41	37	61	...	46	23	54	...	21	12	28	...
Meiktila	23	19	55	...	27	24	61	...	16	10	29	...
Yamèthin	20	26	53	...	23	27	55	...	26	14	28	...
Myingyan	16	37	47	...	19	39	62	...	19	25	39	...
II. Deltaic Clains ...	*33*	*32*	*46*	*57*	*17*	*12*	*21*	*35*	*20*	*12*	*23*	*36*
Rangoon	161	153	141	148	33	27	15	38	14	9	10	23
Hanthawaddy	22	20	21	62	15	10	9	40	25	11	14	42
Tharrawaddy	17	24	51	42	16	11	28	27	17	11	30	34
Pegu	24	11	45	...	16	6	17	...	14	9	25	...
Bassein	21	20	49	87	14	9	26	59	12	12	32	45
Henzada	26	32	33	37	17	17	23	30	23	16	17	32
Myaungmya	20	24	}	...	10	10	}	...	14	15	}	...
Ma-ubin	27	} 51	} 52	...	23	} 18	} 36	...	22	} 21	} 43	...
Pyapôn	17	}	}	...	10	}	}	...	26	}	}	...
Thatôn	28	8	30	44	18	6	17	24	24	8	18	24
Toungoo	30	20	34	20	23	13	22	22	32	14	28	49
III. Northern Hill Districts	*65*	*34*	*38*	..	*68*	*37*	*39*	...	*122*	*37*	*35*	..
Bhamo	36	23	45	...	54	20	48	...	236	74	33	...
Myitkyina	92	18	...	...	74	23	...	...	271	12	...	...
Katha	35	30	24	...	38	28	22	...	30	23	25	...
Ruby Mines	70	18	18	...	69	7	21	...	48	18	23	...
Upper Chindwin ...	101	63	52	...	110	80	56	...	125	58	48	...
IV. Coast Ranges ..	*38*	*26*	*52*	*89*	*28*	*14*	*36*	*60*	*27*	*11*	*26*	*63*
Akyab	43	28	53	79	31	15	37	45	25	16	32	45
Northern Arakan ...	58	126	130	55	72	73	55	76	18	24	14	62
Kyaukpyu	51	32	58	121	31	19	35	60	27	10	13	62
Sandoway	37	29	54	107	27	16	38	75	33	11	25	51
Salween	30	5	29	100	30	5	51	77	32	11	45	70
Amherst	26	17	55	92	19	7	32	65	24	7	25	77
Tavoy	39	12	37	60	37	13	20	51	41	4	22	21
Mergui	30	17	43	80	18	8	35	58	30	9	23	32
V. Specially Administered Territories.	*102*	*27*	..	..	*105*	*27*	...	...	*108*	*19*	...	...
Northern Shan States	82	22	...	...	75	25	...	...	177	39	...	...
Southern Shan States	47	13	...	...	52	13	...	...	58	9	...	...
Chin Hills	593	180	...	...	619	170	...	...	223	45	...	...

NOTE—(i) The corrected proportions of insane for Rangoon for 1911 after deducting the number of insane in the Asylum born outside Rangoon are Males 25, Females 11.

of the population at each of the last four Censuses.

Mute.				Blind.								Leper.							
Female.				Male.				Female.				Male.				Females.			
1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881	1911	1901	1891	1881
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
32	11	23	24	67	54	89	88	78	58	113	83	40	29	61	58	18	12	26	16
20	*15*	*31*	*24*	*91*	*89*	*134*	*116*	*112*	*108*	*190*	*161*	*47*	*39*	*72*	*46*	*24*	*19*	*37*	*15*
16	8	26	24	54	58	79	115	55	47	95	146	34	38	44	45	14	11	12	14
17	7	17	25	70	49	58	114	71	68	91	150	47	24	51	48	15	14	15	17
40	30	43	...	91	128	156	...	106	167	214	...	23	31	56	...	15	19	31	...
26	18	37	...	88	89	157	...	114	113	233	...	68	50	82	...	30	28	42	...
18	26	24	...	58	101	122	...	87	127	171	...	38	48	78	...	20	27	35	...
14	8	33	...	120	103	163	...	117	92	212	...	77	45	99	...	45	21	61	...
20	9	17	...	98	77	73	...	141	83	103	...	31	22	30	...	18	14	16	...
19	12	35	...	129	100	193	...	174	114	288	...	92	40	115	...	58	29	61	...
22	12	48	...	141	109	211	...	197	159	338	...	64	41	99	...	33	20	54	...
13	16	22	...	175	103	134	...	175	95	144	.	61	21	62	...	18	14	26	...
16	11	33	...	76	48	115	...	95	78	205	...	36	22	65	...	18	15	41	...
14	11	20	...	80	62	120	...	91	76	137	...	28	19	48	...	11	10	18	...
13	21	35	...	63	113	153	...	79	161	229	...	39	70	94	...	16	28	56	...
13	*6*	*17*	*22*	*37*	*32*	*62*	*87*	*81*	*27*	*49*	*80*	*41*	*32*	*67*	*77*	*14*	*10*	*18*	*18*
6	4	5	18	20	24	21	77	14	18	13	57	40	35	27	44	5	8	9	16
17	5	9	17	39	43	28	122	30	31	26	85	50	36	47	112	17	10	11	26
11	7	24	20	39	23	61	76	44	19	78	77	23	22	53	50	11	6	14	11
9	3	17	...	46	37	72	...	30	45	48	...	53	23	108	...	17	7	21	...
10	4	16	30	22	14	49	90	20	10	45	87	37	32	98	125	15	9	27	33
16	8	18	22	43	40	53	77	37	33	48	88	50	41	54	56	16	15	17	15
7	7	}	..	24	30	}	...	23	28	}	...	45	53	}	...	13	16	}	...
15	13	37	..	39	} 55	91	...	30	} 55	85	...	71	} 61	163	...	27	15	53	...
16			...	36			...	36			...	35			...	15			...
12	4	11	14	34	16	43	75	22	3	35	61	25	10	28	50	5	5	8	9
18	8	15	32	58	40	62	86	55	34	66	89	17	16	35	37	7	3	11	17
112	*24*	*32*	...	*105*	*67*	*91*	...	*112*	*71*	*119*	...	*86*	*19*	*28*	...	*21*	*11*	*16*	...
238	48	41	.	77	36	165	...	77	39	255	...	24	4	29	...	12	3	19	...
203	18	...	...	82	28	...	...	76	42	...	...	18	1	...	...	14	3	...	...
34	14	22		106	82	66	...	108	95	102	...	48	28	20	...	31	17	13	...
41	10	12	...	79	70	38	...	94	41	65	...	37	5	29	...	16	1	9	...
120	33	42	...	149	82	98	...	168	92	98	...	37	33	34	...	19	19	19	...
16	*6*	*15*	*28*	*28*	*19*	*37*	*76*	*20*	*13*	*29*	*54*	*16*	*11*	*23*	*31*	*7*	*5*	*11*	*10*
15	6	16	25	23	16	32	54	16	9	24	36	8	6	16	18	7	4	10	5
18	34	34	48	81	218	130	193	54	160	116	269	135	198	164	103	63	111	116	62
17	6	18	33	28	20	23	53	26	17	21	38	13	8	21	15	5	6	9	9
25	4	15	26	27	16	32	77	17	8	29	74	6	5	8	21	...	1	3	18
17	3	25	20	13	5	19	47	19	13	35	40	15	8	19	13	4	...	19	...
14	6	12	43	29	13	53	142	14	8	28	81	27	13	36	73	5	3	10	18
20	6	8	8	40	24	38	62	33	16	48	44	15	5	13	13	7	2	4	4
16	3	11	14	28	19	42	62	27	10	35	64	9	5	37	42	8	1	11	18
101	*12*	...	..	*108*	*44*	...	...	*127*	*41*	...	..	*44*	*12*	...	...	*2*	*6*	..	...
173	25	...	...	157	87	...	...	179	85	..	...	27	15	...	...	19	11	...	...
54	6	...	...	91	30	..	...	110	25	...	...	41	8	...	...	27	4	...	...
178	19	...	...	49	22	...	...	53	18	...	..	135	33	...	..	57	11	...	...

NOTE—(ii) The corrected proportions of lepers for Rangoon, Mandalay and Amherst, after deducting the number of lepers in Asylums born outside those districts are—

District.	Males.	Females.
Rangoon ...	27	4
Mandalay ...	41	22
Moulmein ...	21	4

SUBSIDIARY TABLE II.—*Distribution of the infirm by age per* 10,000 *of each sex.*

Age.	Insane.								Deaf-mute.							
	Male.				Female.				Male.				Female.			
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0—5 ...	125	115	63	53	167	130	84	75	368	341	312	237	384	351	354	322
5—10 ...	322	274	198	216	383	277	224	281	1,082	854	1,005	838	960	854	952	824
10—15 ...	617	557	567	406	605	637	479	541	1,429	1,294	1,335	922	1,3 8	1,376	1,072	1,026
15—20 ...	1,019	938	914	1,174	894	949	806	966	1,482	1,375	1,088	1,355	1,528	1,088	878	1,253
20—25 ...	1,278	1,300	1,181	2,237	1,153	1,027	997	1,884	1,414	1,161	1,167	2,032	1,748	971	1,066	2,088
25—30 ..	1,153	1,175	1,170		981	923	920		932	733	753		804	710	718	
30—35 ...	1,285	1,272	1,299	2,330	1,165	1,118	1,098	2,144	949	948	795	1,781	905	863	912	1,587
35—40 ...	1,023	1,004	1,009		796	867	913		465	560	828		488	495	741	
40—45 ...	1,067	994	1,083	1,673	963	966	1,065	1,822	563	607	461	1,187	490	773	644	1,086
45—50 ...	575	601	585		679	624	719		241	428	423		324	423	439	
50—55 ...	563	611	653	1,024	676	888	923	1,246	283	526	428	733	300	531	479	955
55—60 ...	274	346	390		449	381	418		190	208	233		219	414	376	
60 and over	699	813	888	887	1,089	1,213	1,354	1,041	602	965	1,172	915	522	1,151	1,369	859

SUBSIDIARY TABLE II.—*Distribution of the infirm by age per* 10,000 *of each sex.*

Age.	Blind.								Lepers.							
	Male.				Female.				Male.				Female.			
	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.	1911.	1901.	1891.	1881.
1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
0—5 ...	162	249	269	142	148	173	133	99	23	112	33	40	55	184	52	69
5—10 ...	367	395	362	453	245	211	180	272	95	61	77	164	159	120	88	310
10—15 ...	459	472	479	397	321	250	256	251	328	344	372	304	464	448	385	328
15—20 ...	550	459	439	572	375	285	285	378	704	714	722	717	874	872	942	1,017
20—25 ...	616	589	425	973	511	422	290	590	938	1,058	938	1,837	1,125	1,128	1,182	2,224
25—30 ...	521	474	389		423	375	293		1,179	1,245	1,101		1,066	960	1,078	
30—35 ...	634	580	513	1,138	540	476	396	827	1,458	1,449	1,248	2,434	1,229	1,200	1,229	2,172
35—40 ...	586	594	519		472	426	359		1,305	1,153	1,340		870	1,080	937	
40—45 ...	733	665	620	1,433	636	599	540	1,194	1,140	1,099	1,279	2,339	911	888	1,119	1,828
45—50 ..	698	640	627		576	511	453		839	711	830		724	608	625	
50—55 .	822	864	783	1,753	766	810	824	2,126	762	809	781	1,284	824	880	791	948
55—60 ...	697	651	665		861	677	757		393	429	423		592	448	458	
60 and over	3,155	3,368	3,910	3,139	4,126	4,785	5,234	4,263	836	816	856	881	1,107	1,184	1,114	1,104

Subsidiary Table III.—Number afflicted per 100,000 *persons of each age period and Number of Females afflicted per* 1,000 *Males.*

Age.	Number afflicted per 100,000.								Number of females afflicted per 1,000 Males.			
	Insane.		Deaf-Mute.		Blind.		Lepers.		Insane.	Deaf Mute.	Blind.	Lepers.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.				
1	2	3	4	5	6	7	8	9	10	11	12	13
0—5	8	9	22	18	17	16	1	1	1,123	845	1,000	1,091
5—10	21	21	65	47	38	27	6	4	994	719	733	761
10—15	45	40	95	77	52	43	22	15	820	753	770	642
15—20	97	69	128	103	81	58	62	34	733	836	750	563
20—25	127	97	127	129	94	87	86	47	754	1,001	911	544
25—30	114	90	83	65	79	79	108	49	711	698	893	410
30—35	129	116	86	79	98	109	136	61	762	773	937	382
35—40	128	102	53	55	114	123	152	56	631	850	886	302
40—45	153	128	73	57	162	172	151	61	754	707	954	362
45—50	122	138	47	58	230	238	166	74	987	1,088	908	392
50—55	129	130	59	51	291	300	162	80	103	858	1,024	491
55—60	104	144	66	62	410	562	139	96	1,371	933	1,359	684
60 and over	104	126	81	53	727	969	116	64	1,301	702	1,438	600

Subsidiary Table IV.—Number afflicted per 100,000 *of the population of fourteen selected races.*

Race.	Insane.		Deaf-Mutes.		Blind.		Lepers.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Province... ...	43	36	39	32	67	73	40	18
Burmese ...	37	28	27	23	75	78	46	21
Arakanese ...	36	24	16	13	20	10	2	4
Intha ...	85	93	44	36	97	148	155	76
Kadu ...	9	170	125	170	241	295	179	125
Taungyo ...	20	137	15	15	56	71	76	46
Danu ...	41	27	49	30	82	109	8	7
Kachin ...	108	125	517	487	139	95	22	15
Chin ...	321	315	141	111	44	44	90	34
Shan ...	68	61	79	71	152	153	43	38
Taungthu ...	17	67	14	45	26	71	18	5
Karen ...	27	19	25	15	21	22	31	10
Talaing ...	23	11	24	11	22	12	21	6
Wa-Palaung ...	53	65	97	118	91	105	13	14
Chinese ...	16	7	75	73	28	20	31	1

CHAPTER XI.

Caste, Tribe and Race.

CASTE AND INDIAN IMMIGRATION.

256. Caste, Tribe or Race.—In India, Caste is of outstanding importance as compared with Race, and indeed caste is the form which ethnical distinctions assume over the greater portion of the Indian Empire. But in Burma caste is relatively unimportant. It has no existence among the indigenous population, and it appears among the immigrant population in a form showing many signs of disintegration. Consequently it attains but a subordinate place in a branch of census enquiry devoted to ethnical classification. In the opinion of four generations of Census Superintendents in Burma the records of caste are both useless and inaccurate. The claims of uniformity throughout a unified empire have succeeded in retaining caste as a subject of record in Burma, but in the course of tabulation it is treated as a matter of subsidiary importance. Tribal and racial divisions, in Burma matters of the utmost complexity, naturally take the place of a consideration of caste, and it is to an analysis of such divisions that the greater portion of this chapter will be devoted. Imperial Table XIII contains the data from which the material for the analysis is obtained, and Subsidiary Table I of this Chapter enables an estimate to be made in the magnitude of the various indigenous racial groups since the first census was undertaken in 1872. The gradual extension of census limits has been a more potent factor than natural movements in producing the variations exhibited. An attempt will be made in the course of the treatment of each individual tribe to attribute the degree of variation to each contributory cause.

257. Definitions of Caste.—According to Sir Herbert Risley's definition, a caste is said to be—

"A collection of families or groups of families bearing a common name, which usually denotes or is associated with a specific occupation ; claiming common descent from a mythical ancestor, human or divine ; and professing to follow the same traditional calling. A caste is almost invariably endogamous, in the sense that a member of the large circle denoted by the common name may not marry outside that circle. But within that circle there are usually a number of smaller circles, each of which is also endogamous. Thus it is not enough to say that a Brahman at the present day cannot marry any woman who is not a Brahman ; his wife must not only be a Brahman, she must also belong to the same endogamous division of the Brahman caste."

Mr. Gait in his Census Report of 1901, in order to differentiate a caste from a sub-caste defines it in the following terms :—

"A caste is an endogamous group, or a collection of such groups, bearing a common name who, by reason of similarity of traditional occupation and reputed origin, are generally regarded, by those of their countrymen who are competent to give an opinion, as forming a single homogeneous community, the constituent parts of which are more nearly related to each other than they are to any other section of the society."

The three important constituents of a caste, according to both definitions, are the practice of endogamy, the association with a traditional occupation, and the belief in a common ancestry or origin. Whichever of the three criteria be adopted, it is apparent that the definition cannot be applied to the greater portion of the indigenous population of Burma. So far from the tribes and races of the province showing any general preference for associating in endogamous groups they are most catholic in their practice of intermarriage both with each other, and with immigrant races. The Karen tribes furnish the only instances of tribal endogamy but they are quite free from any of the other essentials of caste. So far from following any traditional occupation an individual will frequently pass through numerous changes

of occupation in the course of his career. Hereditary occupations in which a son naturally follows the occupation of his father are common, but there are no limitations or prohibitions which would bring the persons following any such occupations into a caste group. The belief in a common ancestry is frequently found among the more primitive tribes of the province, but they comprise but a small proportion of the total population. Wherever found, the belief has no connection with any idea of the nature of caste. So far as the people of Burma are concerned caste is an alien institution which has made no progress whatever among its indigenous inhabitants. Isolated instances of the elements, which combined, constitute the phenomenon of caste, may be found, but caste itself in its complete form is only to be found among immigrants from India.

258. **Caste among Indian Immigrants.**—But even among the Indian immigrant races, caste in Burma stands on a very different footing from caste in India. The very facts of leaving his native village and crossing the sea to a distant country have violated some of the essentials of the caste of the immigrant. On arrival in Burma, he finds that his predecessors, instead of attempting to continue unimpaired their caste customs and traditions in their new environment, have treated them with neglect. There is no public opinion to bind him to the strict observance of his caste rules. There is nothing to prevent him from assuming with impunity a caste designation to which he would not be entitled in India. The economic basis of caste, serving to preserve a minimum standard of livelihood and to prevent unrestrained competition, in a country where population presses hardly upon the means of subsistence, are found to be hindrances in a country of scanty population where an opening is available to anybody astute enough to avail himself of it. The overwhelming preponderance of the male element among Indian immigrants is also a potent force in the disintegration of caste. In so far as caste depends on the observances and customs of every day family life, it is impossible for the great majority of Indians in Burma. They either live in overcrowded barracks or lodging houses where facilities for caste ceremonial are lacking, or they intermarry with Burmese women who have no conception of the idea of caste, except that it is an artificial creation of meaningless forms and prejudices. The fundamental social and economic conditions for the preservation of the caste system do not exist in Burma. In a few restricted instances, among the members of an Indian regiment, among the Brahmans who are retained by the Burmese for consultation concerning religious, social and ceremonial functions, and even among homogeneous groups of Indian immigrants massed together in large towns, attempts at the preservation of caste are made with some success, in the face of great difficulties. But such attempts are the exception rather than the rule. In the great majority of instances the Indian in Burma either disregards his caste entirely ; or nominally belonging to a caste, not necessarily his true one, allows himself great liberties in the observance of its rules and limitations.

I am indebted to Mr. Taw Sein Ko, Superintendent of the Archæological Survey, Burma, for the following information concerning the Brahman astrologers consulted by the Burmese with regard to their ceremonial observances.

"It is not known when the staff of Brahman astrologers was first entertained at a Burmese Court. In Burmese history, they are frequently mentioned as the White and the Black Brahmans, *i.e.*, white or the Brahmans imported from India, and black or indigenous Brahmans, who have settled down in Burma for a long time. In the reign of Bodawpaya (1781—1819), there was an importation of Brahmans, with their sacred books, from Benares in Northern India. They are still recognised as Brahmans by Hindus and they still maintain their caste distinctions. They do not intermarry with the Burmese. They are still consulted by the Burmese for propitious dates for festivals, marriages, journeys and commercial transactions. It was the custom of the members of the Burmese Royal Family and Burmese officials to make offerings to Brahman astrologers as well as to Buddhist monks, and to employ the former at their weddings, religious initiations and ear-boring ceremonies, to mutter incantations and to utter pious aspirations. In the Burmese time, the Brahman astrologers occupied an honoured position in Burmese society, and their high caste was and still is recognised by the Hindu immigrants from India."

259. **Difficulties of recording Caste.**—Apart entirely from the probability that the caste given by an Indian immigrant is not that to which he is strictly entitled, the difficulty of obtaining a record of caste is almost insuperable. It is usually recorded by a Burmese enumerator who has no natural conception of the subject, but who may have been coached with more or less success into a knowledge of the names of a few of the castes he is most likely to meet in the course of his enumeration. He has no means of verifying what to him is an unmeaning

designation. His record has to be made in a language peculiarly unsuited to the transliteration of foreign sounds. He makes a phonetic representation of a name in a character notorious for its disregard of phonetic methods of spelling. Beyond a few of the more widely distributed and better known castes it is impossible to prepare and publish standard transliterations of caste names. The amount of work entailed in such a task would be disproportionately beyond the utility of its resulting advantage. In due course, the caste names as recorded in Burmese have to be transliterated again into English by a different staff from that which made the original record. In the Bengal Census Report for 1901 it is stated that caste names are often spelt so similarly that it is almost impossible to distinguish between them. If this is the case where caste is a familiar phenomenon, and where the names are recorded directly in the vernacular, the difficulties in Burma, where caste is an alien institution with foreign designations, can be faintly estimated. The final results are obtained after two doubtful transliterations of an extremely doubtful set of original statements.

260. Treatment of Caste in previous and present Census Reports.—In 1881 no attempt was made to prepare a return for caste in Burma. Imperial Form XII prescribed for the return of caste was submitted without any entries as it was considered impossible with Burmese enumerators to attempt to record Hindu castes or Mahomedan tribes. In 1891 the question of the return of caste was left open until the Census Commissioner and Census Superintendent could consult together. It was finally determined to attempt a record of caste. In paragraphs 226 and 227 of the Census Report of 1901, Mr. Eales discussed the question of a caste record in Burma. He considered such a record to be of very doubtful value and gave his opinion that it was more than probable that a record of caste would not again be attempted at another Census. However, when the question was again considered in 1900, it was determined that it was necessary for Burma to conform with the practice prescribed for the rest of India and to do the best with the material available. In paragraphs 156 and 157 of his report, Mr. Lowis dwells at great length on the difficulty of recording caste in Burma and on the possibility of misleading answers and errors in transliteration. He concludes his discussion in the following terms:—

"I may seem to have dwelt at somewhat undue length on this aspect of the caste returns in Burma. No one, it may be said, is likely to place any great reliance on the caste figures collected in Burma. That this has been the case in the past is, no doubt, true. I submit, however, that since the 1891 Census the body of caste folk in the province has increased so largely and has now reached so substantial a figure, that, unless some disclaimer such as the above is made, the public may be moved to think that the familiarity with and knowledge of caste has grown to an extent proportionate to the growth of the Hindu population, and to treat the date with the same respect as that with which they treat the returns compiled for castes in their locality or origin. With the assurance that if they do so they are doomed to disappointment, I pass on to the consideration of the castes that are found in Burma."

The inconsistency of making a record of castes such as that contained in pages 238 to 253 of Part II of the Burma Census Report of 1901, and at the same time publishing a disclaimer lest the figures should be treated with any degree of respect has now been recognised. It was decided for the Census of 1911 that a full record of caste should be taken on the enumeration schedules, but that only those castes forming an appreciable proportion of the population should be tabulated in detail. Consequently, Imperial Table XIII contains detailed records of eleven castes only. It was intended to make a record of the twelve most numerous castes as indicated by the records of 1901 but the entries in the present census records for one of these castes (the Paraiyan) which contained 25,601 persons in 1901 amounted to seven only. Consequently details were given for eleven only, instead of for twelve castes as originally intended.

261. Instances of unreliability of Caste Records in Burma.—The Paraiyans are a Tamil-speaking caste and its members are without doubt the most numerous of any of the Indian castes in Burma. The majority of the Madrassi domestic servants employed in Burma belong to this caste. In 1891 the number of its members was 20,453. In 1901 the total had risen to 25,601. In 1911, although the increase in the numbers of the representatives of this caste since 1901 must have been considerable, the entries of this caste practically vanished from the census records. It is a matter of common knowledge that the members of this caste in Burma indignantly repudiate any connection with it, and it would almost

seem as if there had been concerted action on their part to refuse to give their correct caste designation. A very large number of the members of this caste were entered at the current census as Christians. Another instance both of the power of suggestion and of the unreliability of the caste returns is contained in the figures for the Sudra caste for the years 1901 and 1911. In 1901 the Sudra caste was chosen to be entered in the specimen schedule issued to enumerators as a guide to the method of making the various entries of the Census Record. The number of entries for this caste then totalled 49,421. In 1911, the Sudra caste was omitted from the specimen schedule and other castes substituted, the total number recorded for the caste fell to 26,806. This variation in the figures, so contrary to any probable variation in the facts they purport to represent, indicates the nature of the influences which affect the figures for caste in the census returns, and the necessity of the warning issued by Mr. Lowis against placing too much reliance on the figures for the separate castes in Burma.

Another feature in the record for caste is the remarkable increase in the numbers of Hindus who gave no caste return whatever. In 1901, 58,073 Hindus failed to give their caste. This number has now risen to 99,710. The great majority of these entries simply consisted of the word "Hindu." The next in numerical order were blank entries the knowledge that they referred to Hindus being obtained from the column relating to religion. Despite emphatic warnings in the instructions issued, such names as Madrassi, Bengali, Hindustani, Tamil and Telugu were repeatedly entered in the column for caste. The fact that out of a total of 389,679 Hindus in the province, 99,710 failed to give any clear indication as to their caste is in itself a fact which destroys confidence in the record. It may be that the default is in the enumerator, rather than in the person enumerated but a classification, in which over a quarter of the items to be classified are indeterminate, is of very little value, whatever may be the cause of the failure to obtain more definite results.

262. Figures for eleven Hindu Castes in Burma.—The numbers recorded for the eleven most important Hindu Castes in Burma are given in a marginal statement. It is probable that the contrary movements of the Chatri and Chetty castes are due to a confusion in the entries of the two castes respectively, but it is impossible to tell whether the confusion was more marked in 1901 than in 1911. The decrease in the number of Manipuris is partly due to their ready assimilation with the Burmese and partly to an omission to treat Manipuri as a caste name. The name of the Palli caste is one readily leading itself to confusion with that of other castes. The difficulties of obtaining a correct record of this group were explained at length by Mr. Lowis in paragraph 157 of his report. The decline in the entries for Sudras is due principally to the fact that Sudra was the caste chosen in the specimen schedules for 1901 and was omitted in the schedules for 1911. Where the possibilities of error in the original record are so great the power of suggestion exercised by the choice of a specimen has peculiar opportunities for operation. In considering these figures, I can only repeat the warnings of several generations of Census Superintendents in Burma. The ignorance of the fundamental conception of caste is so great, and the possibilities of error in the original statement in the original record, and in the processes of transliteration and compilation, are so wide, that the results are not to be treated as possessing any degree of accuracy. Of far greater utility and of far greater reliability are the figures for the Hindu castes as a whole. The accurate recognition of Hindu subdivisions is beyond the capacity of the census machinery of the province, but a high degree of accuracy can be assigned to the figures of the total Hindu community. The ethnical significance of caste distribution is but slight. No caste of itself is of such outstanding importance that it is likely to leave any permanent mark on the races of the province. But the total effect of all castes combined cannot be ignored as being ethnographically unimportant. It is a question of extreme importance to the future development of the province. It is a

Caste.	1911.	1901.	Increase or Decrease.
Brahman	21,170	15,922	+ 5,248
Chatri	10,942	13,454	— 2,512
Chetty	14,366	6,508	+ 7,858
Kapu	14,964	11,214	+ 3,750
Mala	21,248	18,522	+ 2,726
Manipuri	3,353	11,132	— 7,779
Padiyachi	11,808	5,817	+ 5,991
Palli	5,861	13,250	— 7,389
Sudra	26,806	49,421	— 22,615
Uriya	10,411	5,035	+ 5,370
Vellala	6,012	6,060	— 48
Total ...	146,941	156,335	— 9,394

matter for congratulation that where the figures are inaccurate they are from a provincial point of view ethnically insignificant, and that where their significance is of great importance their accuracy attains a higher degree of reliability.

263. Hindu Castes.—The total number of the members of the Hindu community in Burma has increased by 104,195 to a total of 389,679, this representing 36·49 per cent. for the decade. The distribution of the Hindu immigrants over the province is most unequal. It will be seen that 223,701 or 57 per cent. of the total are located in four districts, the remainder being spread over 33 districts and four territories under special administration. But it is difficult to exhibit the true distribution of the Hindu population by district figures. They congregate mainly in the cities and towns of the province, and in the larger villages on the railway system and on the banks of the Irrawaddy. Apart from a few districts in the delta Hindu immigration has made no impression on the rural population of the province. The Hindu is conspicuous in Burma because he is in evidence on all the main routes of communication. The actual increase is trifling if the vast extent of immigration is considered. Of the total population of the province the various Hindu castes form but a small and not rapidly increasing proportion, having advanced from 2·28 per cent. to 3·21 per cent. in the past twenty years. The general question of the effect of Hindu immigration on the ethnical character of the country will be considered in connection with the wider problem of Indian mmigration generally.

—	1911.	1901.	Increase or Decrease.	
			Actual.	Per cent.
City of Rangoon ...	108,350	82,994	+ 25,356	+ 3·55
Hanthawaddy	57,137	39,529	+ 17,608	+ 44·54
Pegu	34,350	18,602	+ 15,748	+ 84·65
Amherst	23,864	25,348	— 1,484	— 5·85
Total (four Districts) ...	223,701	166,473	+ 57,228	+ 34·37
Rest of Burma	165,978	119,011	+ 46,967	+ 39·46
Provincial Total ...	389,679	285,484	+ 104,195	+ 36·49

Percentage of Hindus to total population.	
Year.	Percentage.
1891	2·28
1901	2·75
1911	3·21

264. Musalman Tribes.—Just as the Hindu castes are congregated unduly in four districts, so the majority of the members of the Musalman tribes are to be found in the two districts of Akyab and Rangoon, which contain 56 per cent. of the Musalmans of the province. In Akyab they are indigenous and enter largely into agricultural occupations. But in the remaining districts of the province they are principally an urban population engaged in industrial and commercial pursuits. They form a larger, more united and more influential body than the aggregation of Hindu castes to be found in Burma, but their increase is less rapid. In twenty years they have advanced from 3·33 per cent. to 3·47 per cent. of the total population. The apparent set back in the proportion between 1891 and 1901 was due to the inclusion within census limits of the Specially Administered Territories with an almost exclusively non-Musalman population. It is doubtful if much more reliance can be placed on the figures for the separate Musalman tribes than on those for the separate Hindu castes. The comparison of the numbers of Shaikhs and Zerbadis for the years 1901 and 1911 is obviously of but little value. In Burma, tribal distinctions tend to disappear or to be modified considerably by the environment. The great majority of the 100,842 persons classed under "Other Musalman Tribes"

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Akyab	178,647	154,887	23,760	15·34
City of Rangoon ...	54,390	42,873	11,517	26·86
Total (two Districts) ...	233,037	197,760	35,277	17·83
Rest of Burma	184,253	133,538	50,715	37·97
Provincial Total ...	417,290	331,298	85,992	25·95

Percentage of Musalmans to total population.	
Year.	Percentage.
1891	3·33
1901	3·28
1911	3·47

were recorded merely as Musalmans, Mahomedan being entered in the column for religions, and Musalman in the column for caste, tribe or race. There are possibilities of many cross categories especially among the Zerbadis, who may either enter themselves under this designation, or enter the tribe of the father. The large number of Zerbadis now recorded is significant as indicating the extent to which intermarriage between the Burmese and Musalman races is proceeding. Such intermarriage tends to obliterate tribal as apart from racial distinctions; the Mahomedanism generally remains, and any such racial distinctions as Afghan or Pathan remain, but designations such as Shaik or Saiyed are gradually dropped except where there is a very strong Mahomedan community. The Malays are found along the coast of Mergui District. They invariably engage in seafaring occupations of which fishing, pearl-diving and the coasting trade are the principal. In the interior of the district can be found a small number of Musalman agriculturists, Burmese in their language and general characteristics, who are the result of intermarriage of the indigenous population with the Musalmans of the coast.

Musalman Tribes.			
Designation.	Population.		
	1911.	1901.	Increase or Decrease.
Shaikh	237,568	269,042	— 31,474
Zerbadi	59,729	20,423	+ 39,306
Saiyed	6,871	8,970	— 2,099
Pathan	8,041	9,224	— 1,183
Malay	4,239	3,983	+ 256
Other Musalman Tribes	100,842	19,656	81186
Total ...	417,290	331,298	+ 85,992

Malays.	
1911	4,239
1901	3,983
Increase ...	256

265. Indians and Indigenous Populations compared.—It is a fundamental article of belief with the majority of Europeans in Burma, that the Burmese race is doomed and is bound to be submerged in a comparatively short time by the hordes of immigrants who arrive by every steamer from India. There are many facts which appear to provide good grounds for this belief, but it is entirely unsupported by the census returns, and a consideration of the true circumstances with regard to the effect of Indian immigration into Burma would appear to be necessary. Statistically the question belongs to Chapter II (Movement of Population) or to Chapter III (Birth-place) of this report, rather than to the chapter devoted to ethnography. But it possesses an ethnical significance, and what is perhaps the most living racial problem in the province should not be ignored in a general review of its racial components. Statistically the problem is presented in a marginal statement showing the relative figures for 1901 and 1911 and the corresponding increases for certain racial units. The total increase of the Indian population, Hindus, Mahomedans and all other classes of Indians combined, is 205,343 or 32·42 per cent. Against this increase, Burmese proper can show an increase of 14·91 per cent., the Burmese racial group of 12·52 per cent., and the indigenous races of the province of 15·73 per cent. It might appear that races showing an increase of 32·42 per cent. must in the long run prevail over races and groups with increases varying from 12 to 16 per cent. But the higher percentage is based on much smaller aggregate figures, and there is every indication that with an increase in the aggregate figures a decrease in the percentage will follow. For instance between 1891 and 1901 the increases in the Hindu and Mahomedan populations were 63 and 33 per cent. respectively. Between 1901 and 1911 on higher aggregate figures the percentages of increase have respectively diminished to 36·49 and 25·95. Putting percentages aside, as fictitious guides when comparing figures of greatly disproportionate magnitude, the increase of 205,343 in the Indian population is seen to dwindle into

—	1911.	1901.	Increase.	
			Actual.	Per cent.
Hindu Castes	389,679	285,484	104,195	36·49
Musalman Tribes ...	417,290	331,298	85,992	25·95
Other Indians	31,601	16,445	15,156	92·16
Total Indian Population	838,570	633,227	205,343	32·42
Burmese Proper ...	7,479,433	6,508,682	970,751	14·91
Burmese Racial Group	7,986,327	7,097,248	889,079	12·52
Indigenous Racial Groups	11,125,004	9,612,397	1,512,607	15·73

insignificance in comparison with the increase of 970,751 persons who entered themselves in the record as Burmese, or with the addition of over a million and a half to the indigenous races of the province. An increase of two hundred thousand persons is not appreciably near to effecting the submergence of a race showing an increase approaching a million persons, even though the former does assume a percentage of 32 while the latter appears as a percentage of less than 15.

266. Causes of Slow Increase of Indian Population.—There are numerous causes to explain the comparatively slow increase of the Indian population of Burma. Considering the enormous amount of immigration, the greater part of it is seasonal, and the majority of the immigrants return to their native countries after a longer or shorter sojourn in the province. In one year (1908) the shipping returns actually showed a larger number of emigrants departing from the port of Rangoon than of immigrants arriving. This was of course an exception, but the net gain by immigration is a small proportion only of the total number of immigrants. The second factor in keeping down the number of Indian inhabitants in Burma is the extremely slow rate of natural increase. Indeed, it can be said that there is no natural increase whatever among them. The overwhelming preponderance of males leads to an excess of the death-rate over the birth-rate. The latter, depending on the number of marriageable women, is exceedingly low compared with the total population. This can be best exemplified by a comparison of the number of births and deaths for the decade 1901 to 1911 in Rangoon, where the Indian population is in a majority. As a result of this decrease a large proportion of the net gain by immigration is necessary to keep their numbers in a state of equilibrium. It is only after the natural decrease has been compensated that the tendency to increase begins to operate.

Hindu and Mahomedan sex numbers.

Religion.	Sex.	1901.	1911.
Hindu ...	Males ...	236,930	312,650
	Females	48,554	77,029
Mahomedan ...	Males .	220, 99	271,428
	Females	119,347	149,349

Excess of deaths over births in Rangoon 1901—1911.

Birt hs	43,204
Deat hs ...	96,949
Natural Decrease	53,745

But this excess of immigrant males has another effect so far as the Hindus are concerned. They intermarry largely among the Burmese, and the children of such marriages in the majority of cases are brought up as Burmans, adopt the dress, manners and customs of the Burmese, and in course of time are incorporated into the Burmese race. This is not invariably the case. Among wealthy Hindus of high caste, the children are generally brought up as Hindus and not as Burmans, though after one or two generations of residence in Burma the caste feeling decreases and the tendency to the adoption of Burmese customs, speech and race gradually grows stronger. Neither is it the case with the children of mixed Mahomedan and Burmese parentage. These form a separate Mahomedan tribe called the Zerbadis, who though Burmese in some of their characteristics generally retain their Mahomedan religion and are not entered as Burmans. But even allowing for the children of mixed marriages of Burmese women with wealthy Hindus and with Mahomedans, there still remain very large numbers of children of Indian male parentage who go to swell the numbers of the Burmese race. These affect the relative numbers in a double sense. They detract from the potential increase of the Indian population and they add to the actual increase of the Burmese population.

It would be possible to multiply reasons why the number of Indian inhabtants in Burma does not increase at a greater rate. They are not homogeneous. They come from different countries, speak different tongues, have different customs and religions, and are almost as foreign to each other as they are to the Burmese. A united, single-minded, highly-civilised body of equal numbers might make a much greater ethnical impression on the province. But a heterogeneous collection of people collected from all parts of India, many of an inferior stage of civilisation, all incapable of unified action, incapable even of acting alike in similar circumstances, cannot produce a result commensurate with its numbers. The diversities of the various indigenous races of the province sink into insignificance compared with the diversities of the members of its Indian population. The Burmese people are not confronted with an invasion from a single, united and highly-civilised race. They are merely subjected to incursions from numerous and diverse quarters

each one insignificant in itself, possibly disquieting in the aggregate, but assuming a fictitious aspect of menace owing to the massing together under one designation of incongruous and disunited elements.

267. Economic aspect of Indian immigration.—Another aspect of the immigration of Indians to Burma is worthy of notice. The Indian comes to Burma to supply an economic demand which the Burman has failed to supply. The Burman has been so occupied in filling up the waste places of his country that he has never competed for a large number of town and city occupations. In so far as the demand for Indian labour is a demand for cheap, docile, disciplined labour, the Burman has not yet needed to enter into competition with the contract labour from Madras. It is true that there are higher forms of skilled industry, the mechanical, the engineering, the building, the transport, the distributive and the commercial, which the Burman has abandoned largely to foreign hands. But there is no certainty that such an economic phase is lasting. It has already been noticed how a demand for cheap labour for the rubber industries in the Federated Malay States has affected the rate of immigration into Rangoon. It has still to be discovered how the gradual occupation of the culturable portions of the province and the ultimate forcing of the Burman into urban occupations will affect the demand for Indian labour in Burma. The abstinence of the Burmese from a greater participation in urban industries is no self-denying ordinance. It merely expresses the fact that the race has found more congenial and profitable occupation in other directions. But when the opportunities in other directions begin to fail or to grow less attractive, then a much more strenuous competition on the part of the Burman for a share in the urban life of the province may be anticipated.

268. General conclusions as to the effect of Indian immigration.—Summing up the discussion on the racial competition between the Indian and the indigenous populations of the province, it is seen that current economic conditions have created a demand for labour in certain directions which the Burman has failed to supply. This has led to a large immigration from India to Burma. This immigration is to a great extent neither instinctive, nor natural, nor permanent. It is an artificial enhancement of the labour supply in a sparsely populated country. It looms large in the public eye because the resulting population has settled in the most conspicuous lines of observation, the large towns and villages on the main lines of communication. But its resultant ethnical effect is insignificant. The additions to the Burmese population or to the indigenous population of the province during a decade exceed any additions to the immigrant population several times over. The immigrant races, so far as existing tendencies can indicate, may modify, but can never submerge, the Burmese population. The Burmese race was created through the absorption of Indian immigrants by the nomadic tribes of the Irrawaddy valley. It has attained its present position and numbers by a process of absorption continued throughout centuries of its history. It is absorbing at the present time the descendants of a large proportion of the immigrants who settle permanently in the province. When it can provide a labour supply adequate to the demand, a time which in the opinion of some observers is not far distant, it will continue the process by which it attained its being. When the easily culturable waste places of the province have all been occupied, and Burmese expansion, now distributed widely over the country, is forced into the towns, it is possible to anticipate fresh conditions leading to a continued supremacy of the Burmese race, modified and probably greatly strengthened by the absorption of the Indian races, the members of which will no doubt continue to arrive in considerable numbers.

INDIGENOUS RACIAL GROUPS.

269. Ethnical Classification in Burma.—An accurate estimate of the numerous tribes and races found within the province of Burma is a matter of extreme difficulty. The physical characteristics of the northern portion of the country have induced innumerable differences in customs, language and tribal distinctions. But it is not only in the number of categories to be considered that the difficulty lies. The distinctions between them are neither definite, nor logical, nor permanent, nor easy to detect. They frequently depart from the lines of linguistic differences, and are subject to local variations impossible to estimate. They are unstable from generation to generation, the racial designation of a

community sometimes changing so rapidly that its elders consider themselves as belonging to one race while their descendants claim to belong to another. Intermarriage between neighbouring tribes introduces fresh complexities, the tribe or race of the offspring being largely indeterminate. But apart from such intrinsic difficulties the want of an accurate knowledge of the subject imposes an insuperable barrier to the accuracy of any statistics recorded. And just where the difficulties are greatest, where the determination of the race of each individual is not a matter of course, where the want of adequate knowledge is most acute, the machinery for obtaining accurate records is most primitive. Over large areas no administration whatever has been attempted, and no census enumeration is possible. Over still larger areas a full synchronous census is not feasible. As each successive enumeration has been effected, the census area has been extended, and the omitted and specially treated areas diminished. But even yet, the enumeration of the tribes and races in Northern Burma is partial and defective. It is with such knowledge that the statements concerning castes and tribes and races in Imperial Table XIII, and in the Subsidiary Tables appended to this chapter, must be examined. The primary categories to be recorded are not always strikingly distinctive, they were recorded under many diverse conditions affecting their quality and precision, the boundaries of the area of record are arbitrary and irrelevant limits dictated by administrative possibilities, and the antecedent knowledge of the elements to be tabulated is too limited to permit of any independent check of the classified results.

The correct method to be adopted for a census analysis of the tribes and races of Burma is not easy to determine. It may assume the form of a general description of the manners, customs, locality and numbers of each separate racial and tribal unit entered in the returns, or it may be but a brief reference to the numbers recorded. The general instructions issued, based as they are on an analysis of caste, do not afford much assistance in indicating the degree of detail that should be incorporated. An adequate treatment of each race and tribe would require not one chapter, nor one volume, but many volumes. Moreover as far as it could be accomplished it would largely be a work of supererogation. There is not an important race or tribe in Burma which has not been described and redescribed, more fully than could possibly be attempted in a chapter of a census report, in works both official and non-official. Sir George Scott's Gazetteer of Upper Burma, the Census Reports of 1891 and 1901, the volumes of the Ethnographical Survey of Burma and the Burma Volumes of the Indian Gazetteer, to mention only the principal works of the former class, contain descriptions of the history, traditions, and to a certain extent, the social customs of the tribes and races of the province. Any attempt to describe each race and tribe appearing in the census records would simply be a recapitulation of material available in an easily accessible form. The census reports of 1891 and 1901 each dealing with large additional areas, for the first time coming within the scope of the enumeration, and each containing the records of fresh racial units, naturally demanded descriptive details on a somewhat large scale. But the present census has covered comparatively little fresh ground, and the tribes and races in the added areas have been previously the subject of lengthy descrpition. Consequently it is quite unnecessary to burden this chapter with a narrative of the characteristics of each separate tribe. A precedent for this course of procedure is to be found in the fourth volume of the Burma Ethnographical Series on the Tribes of Burma, where Mr. Lowis refrained from a description of the Burmese, Talaing and Shan races and devoted himself to the ethnographical grouping of the tribes of the province. It was sound to be necessary in order to obtain a correct classification to abandon all extraneous matters which were not directly relevant to the object of the work of survey.

270. Racial Instability.—It has already been necessary to refer to the extreme instability of racial distinctions, when considering the languages spoken by the various tribes and races in Burma. It manifests itself in various ways, sometimes apparently in contrary directions. In some conditions it works for consolidation, and in others for dispersion. Although it is in operation over the whole province, it can be observed with greatest facility on the northern frontier, where the close proximity of the various races forms a favourable environment. In order to appreciate the nature of the phenomenon of easy transition from one race to another two quotations from acute observers who have studied the question on the spot may be given. Mr. Grant Brown, in his Gazetteer of the Upper Chindwin District, writes :—

"The Upper Chindwin presents such an object-lesson in ethnology as it would be difficult, perhaps, to find elsewhere. The processes that in most parts of the world extend

over vast areas and long ages of time are here to be seen working within a small space and telescoped into a few generations. The district is usually represented as being peopled by Burmans and Shans: and as these terms are commonly used the statement is perfectly correct. But the terms are not to be taken as an indication of race. They merely mean that certain persons talk Burmese, wear Burmese dress, and follow the customs prevalent in the rest of Burma; and that certain other persons talk Shan, or that their parents did so, and perhaps to some small extent follow Shan customs.

"An instructive instance of the rapidity with which a community may change all the characteristics which are generally supposed to indicate its race is to be found in the village of Maukkalauk, on the left bank of the Chindwin in latitude 25° 35′. The people of this village now talk Kachin, wear Kachin dress and are called Kachins. They have learnt Shan, however, and if the present processes continue will no doubt in time "become" Shans and eventually Burmans. When this has happened some one may perhaps discover that they once spoke Shan, and decide that they are of Shan origin. Yet they are not even Kachins. Their headman says they came from the neighbourhood of Nengbyeng, on the Chindwin in the north of the Hukawng valley, where they had settled for a time and adopted the Kachin language and customs; but that they had arrived there, when his father was a little boy, from Assam, where they wore white clothes and spoke some language which they have entirely foregotten and of which they do not know the name. Thus in two generations they have lost all but the vaguest traces of their origin."

And again :—

"The above is an example of assimilation: but the opposite process may also be seen in its extremest form in the mountain ranges that border on the north of the district. Here we have tribes living but a few miles apart from each other, similar in appearance and following almost the same customs, who speak languages mutually unintelligible. Yet a study of these languages shows that they are closely allied to one another and are indeed mere dialects; while the fact that they gradually merge into one another as one follows them in any given direction precludes the idea that the differences are the result of migration. Still less is this remarkable contrast the result of a difference in race between the people of the mountains and the people of the plains, for the Naga hillmen, when they descend into the plains, show extreme receptivity, and 'become' Shans or Burmans within a single generation."

Major Davies discussing the relationship of language and of race in Yünnan observes with respect to the same class of phenomena :—

"The migrations of Chinese into the province have sometimes taken the form of conquering armies, of military colonies, or of bands of immigrants sent by the Chinese Government from other parts of the empire. In other cases families or even individuals have come and settled among the non-Chinese tribes as traders or farmers. In all these cases the Chinese immigrants have doubtless intermarried with the original inhabitants, and a race of mixed blood, but of Chinese speech and customs, has thus grown up. After some generations this mixed race would always call themselves Chinamen, and would indignantly scout the idea of a descent from other tribes.

"Besides this, as the influence and civilisation of the Chinese have spread, the neighbouring tribes have found it convenient to learn to speak the Chinese language, and to adopt to some extent Chinese customs. A time eventually comes when some of them begin to despise their own language, custom and dress, and to take a pride in adopting Chinese ways. When this idea once gets hold of them, the time is not far distant when they will call themselves Chinamen. A race of Chinese thus grows up who have really no Chinese blood in them.

"This process can still be seen going on in Western China. One comes across tribes in all states of transformation. The Tibetans and Independent Lo-los of western Ssu-ch'uan, the Li-sos of the Upper Salween valley, the head-hunting Was, and many of the Miao still stick to their own customs entirely, the men still wearing their own dress, or undress as it might in some cases be more correctly called.

"The great majority, however, of the men of the tribes of western China have so far come under the influence of the Chinese as to adopt their dress. With the women the case is different, and the women's dress usually forms the distinctive mark by which tribes can be told apart.

"After the adoption of Chinese dress by the men, their next step is the learning of the Chinese language. After a few more generations perhaps even the women will learn to speak Chinese, and gradually their own language drops out of use. This stage once reached, it does not take long for the tribe to become thoroughly Chinese in their ways, and when the women take to Chinese dress and to binding their feet, the transformation is complete. In a generation or two they will consider themselves pure Chinamen, and will be much offended if anyone suggests the contrary.

"I have watched this process going on with Lo-los, Shans, Las and P'u-mans, and no doubt it has taken place with nearly every tribe of western China. The Chinese of this part of the empire must therefore be considered a very mixed race, and the use of the Chinese language can by no means be considered as proof of identity of race with other Chinamen."

These quotations indicate the difficulty of performing the primary function of the Census Superintendent with respect to racial classification in securing as correct an ethnical analysis of the population enumerated as existing knowledge

will permit. It is necessary in this connection to keep in mind the distinction between caste and race. Caste lends itself to a more precise definition. A classification of castes is a grouping of communities which can be tested by actual existing facts and beliefs to a far greater extent than is possible with respect to race. A description of a caste is necessary before it can be placed into its appropriate group. The grouping largely depends on and follows the customs and beliefs described. But race is a phenomenon of a much more complex nature. It is not primarily a question of existing customs and beliefs. It is dependent on historical, linguistic and geographical considerations. It cannot be determined by an examination of the manners and customs and traditions of a community. Nor are the boundaries between different races and tribes so well defined as between different castes and sub-castes. There is no insuperable boundary between the members of separate races, and still less between the members of separate tribes. These are changed and transformed, separated and amalgamated, and the members transfer themselves from one to another with the greatest facility. In the past the subjugation of one community by another has generally been followed by a fusion of the two or by the absorption of the conquered by the conquerors. Although the possibility of racial transformation by this means has now been greatly curtailed, it has been in active operation up till comparatively recent times. After the evacuation of Pegu by the British in 1826, the Talaing language was rigorously suppressed, its teaching in the Buddhist monasteries was forbidden, and the absorption of the Talaings by the Burmans rendered inevitable. More recent instances of this process can be studied in the Chin Hills, where until administrative control was established quite recently tribal fusion as a result of conquest was in constant operation. Even at the present time, the existence of unadministered territory within the limits of the province, permits the possibility of racial transformation by the means of force. But aggression is by no means the only method possible. Intermarriage affords innumerable opportunities for effecting a transfer from one race to another, and produces a vague border land of hybrid tribes and individuals in which no clear determinate line of demarcation between separate communities exists. Religion, with its corollary of education, is another potent factor in the diffusion of the superior languages resulting in the ultimate assimilation of the members of less advanced tribes. The monastery schools of the province can claim an equal share with its travelling dramatic companies in producing the remarkable uniformity of the Burmese language throughout its limits, and a superior share in extending the language to the neighbouring tribes and races. The use of a fresh language is generally followed by the assumption of the dress, customs and race of the people by whom the extending language is spoken. Migration, by bringing primitive tribes into a new environment, and into contact with civilised races, operates to produce both racial fissure, and racial amalgamation. It may result in the multiplication of tribes asserting a separate tribal existence, or it may result in the extinction of smaller tribes by absorption with their more powerful neighbours. Race in Burma is not a fixed definite phenomenon capable of presentation in a set of tabular statements. It is vague and indeterminate, and in a stage of constant fluctuation. Its method of record is liable to vary from district to district and sometimes from enumerator to enumerator. The census figures are but a presentation of a momentary phase of racial distribution. They do not necessarily represent a distribution of the population into separate and mutually exclusive racial groups. While the main racial divisions are based on distinct and separate migrations into the province, centuries of contact with one another have resulted in numerous actions and reactions of widely diverse character. The superior races, instead of using their superiority to maintain a state of exclusiveness, have utilised it to absorb and include all outside elements. The figures for the larger racial groups therefore represent the present resultant of a series of amalgamations extending through many centuries of time. The smaller groups consist of tribes which owing to various causes have escaped the assimilative activities of their more powerful neighbours. Wherever the surface of the country has been somewhat uniform, in the plains and the broader valleys, the tendency towards amalgamation has operated strongly. But wherever the surface of the country has been highly diversified, rendering communication difficult and central control impossible, the tendency towards amalgamation has operated slightly, and in many instances the contrary process of dispersion has been at work. At present, improved communications and control are assisting the forces making for amalgamation, and opposing those making for dispersion. But whichever tendency may be in

operation, the facility of transition from race to race and from tribe to tribe remains as a permanent source of racial instability.

This suggests that the best method of dealing with the question of the classification of the indigenous tribes and races of the province is by commencing with a brief description of the various migrations which have produced its main racial groups. The origin of these groups having been determined, an estimate of their relative strength and progress can be made, to be followed by a brief analysis of each group as to its various constituents. The figures recorded will generally be sufficient to determine whether any community is in a state of expansion by absorbing its neighbours or in a stage of being absorbed by a larger and more virile race. Occasionally in order to supply information not readily accessible, or to illustrate some point brought out by the statistics a short narrative may be necessary, but otherwise purely descriptive details will be as far as possible avoided.

271. Early Munda Influences.—Of the original inhabitants of Burma nothing whatever is known. The earliest verifiable evidence points to the existence of a population akin to the Mundā races of India over the greater portion of the province. The evidence is primarily linguistic and is based on the affinities between the Mundā and the Mon-Khmer families of languages. But though their connection has been completely established, their marked divergencies in some respects have given a wide range of possibility to the nature of the tie connecting them. Neither is derived from the other. They are both probably the resultant of some common substratum, not at present identifiable, and other languages varying with the locality. This substratum was introduced into further India by races akin to those from whom the Indian Mundā races are descended. Concerning the area over which this basic language was spoken Dr. Grierson writes :—

"Of what language this original substratum consisted, we are not yet in a position to say. Whatever it was, it covered a wide area, larger than the area covered by many families of languages in India at the present day. Languages with this common substratum are now spoken not only in the modern Province of Assam, in Burma, Siam, Cambodia and Anam, but also over the whole of Central India as far west as the Berars. It is a far cry from Cochin China to Nimar, and yet, even at the present day, the coincidences between the language of the Korkus of the latter District and the Anamese of Cochin China are strikingly obvious to any student of language who turns his attention to them. Still further food for reflection is given by the undoubted fact that, on the other side, the Munda languages show clear traces of connexion with the speeches of the aborigines of Australia."

No representatives of the races speaking this language now remain. Their identity was lost by fusion with the Mon-Khmer races who formed the first of successive series of migration waves from the Central Asian plateau. But their linguistic influence remains to demonstrate not only the extent of territory over which they spread themselves, but also the potent effect they exercised on the races with whom they came in contact.

272. The Mon-Khmer Invasion.—It is generally conceded that the Mon-Khmer races formed the first of the three great invasions, or rather series of invasions of the Peninsula of Further India from the uplands of Central Asia. The main currents of the movement flowed to the east of Burma passing down the Mekong valley into Southern China, Cambodia and Siam rather than down the valleys of the Irrawaddy and the Salween. They impinged on Burma from the east rather than from the north. The invasion of Burma appears to have been a lateral movement caused by the pressure induced by the converging limits of the peninsula. It had not the force of the main stream which overcame and submerged all the obstacles in its path. But it had sufficient force to flow in a westerly direction across the Salween, Irrawaddy and Chindwin valleys and penetrate into Assam. In the opinion of Dr. Grierson linguistic evidence points to the conclusion that some form of Mon-Khmer speech was once the language of the whole of Further India. But the area covered was too wide to be effectually held and retained. The nature of the occupation varied greatly in different parts of Burma. In the south it was sufficiently stable to cause the original Mundā inhabitants to be absorbed, and to evolve the Talaing race from the fusion. But over the rest of the country it was so superficial that it could not withstand the Tibeto-Burman and subsequently the Shan, incursions from the north. The members of the Mon-Khmer races were either driven southwards to the sea coast, or isolated in racial islands surrounded by seas of alien peoples. The only remaining representatives of the races which once occupied nearly the whole of the province are the Talaings, a small and diminishing race concentrated principally in the Amherst and Thatôn districts, the tribes

of the Wa-Palaung group in the Shan States and the Möng Mit State of the Ruby Mines District, and a few members of the Miao and Yao tribes on the extreme Eastern borders of the Shan States. The process by which the Mon-Khmer races were isolated can be seen in operation at the present day. The Palaungs have been driven southwards from the hills of the Bhamo and Myitkyina Districts by the Kachins, and are now being hemmed in by the Kachins to the north and the Shans to the south.

273. The Tibeto-Burman Invasion—the Chins and Kachins.—Sir Richard Temple places the Burmese invasion at a period subsequent to that of the Siamese-Chinese. But the weight of authority is to the effect that priority should be assigned to the incursions of the Tibeto-Burmese races. Sir George Scott prefers to hold the opinion that the movements of the Shans do not constitute a migration, but that if they do, their place is the third rather than the second in order of succession. Dr. Grierson definitely asserts that the Tai or Shans are the latest of the Indo-Chinese immigrants into India. The contradiction is probably due to the fact that the first incursions of the Shans into Burma were small and caused rather by restlessness of character than by exterior force. Such small and occasional movements existed prior to the main inflow of Burmese immigration and to that extent the Shan invasion can claim priority. It must however be remembered that a racial invasion is not a simple phenomenon acting within a limited period. It is a succession of movements, now following each other with extreme rapidity, now almost lapsing into quiescence, and extending over indefinitely extended eras of time. Its operation must be measured by its general results, not by any minor and isolated manifestations. Judged by such a standard the Tibeto-Burmese invasion is the second of the three main racial movements which have been instrumental in forming the population of Burma.

For many years the more generally accepted theory of the source of the Tibeto-Burmese invasion was that it originated in the Tibetan Plateau. This has however gradually given place to the opinion that these migrations commenced in a region in Western China between the sources of the Yang-tse-Kiang and the Hoang-ho. Starting with a westerly movement, the component races branched out into five directions upon reaching the head waters of the Irrawaddy and the Chindwin rivers. These led respectively to Tibet, to Assam, to the hill ranges between Burma and Assam, to the Irrawaddy valley, and to the valleys of the Salween and the Mekong. Mr. Lowis for the purposes of provincial consideration classified the races resulting from the last three of these movements into the Western and the Eastern Tibeto-Burmans. Of the western branch, the Chins were the first arrivals in Burma gradually extending southwards from the Irrawaddy-Brahmaputra watershed until they have occupied the whole of the hilly country near the seaboard of the Bay of Bengal. The Kachins are much later representatives of the same movement. They are thrusting themselves southwards and eastwards with such energy at the present time that they are absorbing the scattered elements of other races lying in their path. For the present they are avoiding the regularly administered portions of the province. An instinctive movement of self-preservation has caused the Shans and the Burmese to resent the Kachin intrusion and to oppose obstacles in their path southwards. This has deflected the Kachin movement in an easterly direction. Commencing as an item of the most westerly branch of the Tibeto-Burmese invasion in Burma, it has now taken a course almost due eastwards, and is skirting along the northern boundary of the Northern Shan States, penetrating that territory wherever possible, but being successfully turned aside into the Chinese border states to a great extent. It has largely absorbed the tribes of the Kachin-Burma hybrid groups, and has penned in the Palaungs into a slowly decreasing area, but upon the larger racial groups it has as yet made but a small impression.

274. The Burmese.—It is necessary to consider the movement of the main branch of the Eastern Tibeto-Burmans and their evolution into the Burmese race in the valley of the Irrawaddy in greater detail. After diverging from the remaining streams of the main westward migration they pursued a southerly course down the valley of the N'maikha, the eastern branch of the Irrawaddy. The Marus, the Lashis, the Szis (Tsi) and the Hpons are racial deposits left behind in the course of this progress. Unable for some undetermined cause to push their journey to the southward till they arrived in the broad Irrawaddy valley, the progress of these tribes was arrested, and in the course of time they have been gradually cut off from

intercourse with the main bodies of their predecessors. Surrounded by alien elements, unsuited by their environment, and unable to associate with cognate tribes, they have gradually lost their distinctive characteristics and are now in process of absorption by other races, principally the Kachins. But those who progressed found the valley of the Irrawaddy admirably suited to their needs. It was at that time occupied by tribes of the Mon-Khmer race, who had spread themselves extensively, but insecurely, throughout the greater part of its area. The incoming hill tribes had no difficulty in brushing aside, and either isolating or driving back towards the sea, a race whose expansive power had become exhausted by too great a degree of extension. Nor did the small and widely scattered communities of Shans offer any obstacle to the southern progress of the Burmese tribes through the Irrawaddy valley. Leading a nomadic life, and grouping themselves into tribal units, they gradually extended their influence as far south as Prome. Between Prome and the sea coast, the Talaing branch of the Mon-Khmer races had succeeded by fusion with the more primitive Mundā races, in establishing themselves with sufficient stability to withstand any further encroachments by the hitherto victorious Burmese. For many centuries, though with many vicissitudes, this division of the Irrawaddy valley was perpetuated. The upper portion, roughly corresponding with the natural division designated the Central Basin, remained under Burmese influence, while the southern portion coinciding generally with the Deltaic Plains was equally dominated by the Talaings.

Although the boundary line of the two newly evolved races, the Burmese and the Talaings, was determined by the line of equilibrium of their respective expansive forces, their development into powerful kingdoms was due to other influences. The upper portions of the Irrawaddy valley provided a midway halting place for pilgrims and traders who undertook the adventurous overland journey between India and China. There gradually grew up little settlements of Indian colonists on the line of route, established to supply the needs of the travellers. Of these, Tagaung on the Upper Irrawaddy was the most important. These Indian colonists must not be confused with the primitive Mundā races whose habitat in Burma prior to the Mon-Khmer invasion has been demonstrated by their linguistic remains. They were highly civilised travellers and traders, well acquainted with the arts of commerce and government. Their colonies were examples of the possibilities of a settled life to the nomadic tribes surging around them. Gradually, as the limits of expansion were reached, nomadic life became more and more difficult, and the settlement of Tagaung became the nucleus of an ever-enlarging combination of tribes which ultimately developed into an extensive kingdom.

Influences of a similar nature were also operating on the Talaings in the south. The pressure of the Burmese from the north and the Cambodians from the east induced the cohesion necessary for self-preservation. At the same time, proximity to the sea had rendered the Talaing country even more susceptible to the civilising influence of settlers from India, than the Burmese country in the upper valley. The coast of the inland sea, which at one time occupied a large portion of the present deltaic area, was studded with small trading settlements peopled with colonists from the eastern coast districts of the Indian peninsular. The most northern outpost of these settlements was Prome, whose early development was influenced from the south and from the sea rather than from the north. It was somewhere in the vicinity of Prome that the Talaings schooled by adversity, strengthened by concentration, and tutored by the lessons in skilled governmental organisation learned from the Indian colonists, were enabled to stem the hitherto irresistible onward march of the Burmese immigrants. The formation of a powerful centralised Talaing kingdom, while the Burmese were still in a primitive and inchoate stage of development, impeded Burmese expansion southwards for many centuries. For many years Prome remained the centre of a strenuous and confused struggle between the Talaings, the Hindu colonists, and the three Burmese tribes, the Pyus, the Kamrams and the Saks. Ultimately the Talaings were victorious, Prome was destroyed, and the Burmese tribes were scattered and driven northwards up the Irrawaddy valley. Burmese chronicles date the destruction of Prome at 104 A.D., but it was in all probability several centuries later. Deprived of the possibility of expansion southwards, the Burmese tribes expanded westwards into Arakan and thoroughly established therein the predominance of Burmese racial characteristics despite numerous modifying influences. A centralising tendency also began to assert itself. Retreating northwards from the pursuit of the Talaings, the Pyus, joined by remnants of the other Burmese tribes, founded the capital of Pagan, which rapidly increased in importance until it became the capital of a unified Burmese nation

extending from Tagaung in the north to Prome in the south and from the Shan Hills to Arakan from east to west.

275. The Lolo Migration.—An extreme eastern branch of the Tibeto-Burman migration is that comprising the tribes of the Lolo group. It is so distinct from the remaining Eastern-Tibeto movement that it might be considered a distinct movement. But for the confusion that might be caused, the division of the Tibeto-Burman invasion into two movements, the eastern and western, by Mr. Lowis, might be expanded into three, termed respectively the eastern, the central and the western. The alternative schemes are compared in the marginal statement.

Double classification.	Racial Group.	Triple classification.
Western ...	Chin ...	Western.
	Kachin ..	
Eastern ...	Burmese ...	Central.
	Kachin-Burma ...	
	Lolo ...	Eastern.

It is certain that the connection between the Lolo and the Burmese groups is not so close as is suggested by the classification of the former as the Lisaw sub-group. Mr. Lowis considers that the Lisus form a link connecting the Burmans with the Lolos. But linguistic evidence, while placing the Lisu dialect in the Tibeto-Burman sub-family, has determined that its connection with Burmese is remote, and that it is merely a dialect of the Lolo language. Instead of forming a connecting link between the two groups, Lisu must be placed wholly in the Lolo group, with but remote affinities with Burmese. The number of members of this group within the province is insignificant, but it is important that its degree of separation from what may be termed the central or main branch of the Tibeto-Burmese sub-family should be determined.

276. Siamese-Chinese Invasions—the Karens.—The plural term must be used to indicate the entire absence of connection between the migrations which introduced the Karens and the Shans into Burma. They do not belong even to the same series of movements. Whatever relationship may have existed between the two races, it dates the period before either had left their habitat in China and commenced their migration towards the south. They may have never been closely allied, and such linguistic affinities as exist may have been the result of similar outside influences operating on two distinct races. As to the tentative and provisional nature of their grouping together under one designation the opinion of Mr. Lowis may be quoted :—

"For those who know both the Karens and the Shans it is hard, at first sight, to understand how it can be scientifically demonstrable that the former are more closely related to the latter than to the other hill dwellers of Burma and the Shan States. The Karen has in the past been looked upon as so different from his neighbours that he has tended to become more or less an enigma, but philology has now assigned him, at any rate provisionally, a place in the order of peoples. Save for the language test, one might be disposed to class him with the Kaw, the Riang or the Muhso, but it is now established that his speech is more closely allied to Shan than to the vernaculars of the Tibeto-Burman branch or of the Mon-Khmer family, and his language must be looked on as indicating his racial origin."

Less is known of the origin of the Karens, of the situation of the region from which they originally came, of the time of their migration, of the routes they followed, and of the circumstances of their settlement in the Southern Shan States and in Burma, than of any of the other races within the province. Innumerable theories as to their origin have been seriously propounded, and defended with strenuous argument. That the Karens are the descendants of the lost ten tribes of Israel, that they have migrated from various parts of India and Tibet, and that they are the autochthonous inhabitants of Burma, are propositions which have each received strong support. Even now, nothing certain can be affirmed, though there is a high degree of probability that they came originally from the cradle of nearly all the Indo-Chinese races, the highlands of Western China. They preceded the main migration of the Shans. Peacefully, quietly, and unobtrusively they moved, avoiding all contact with the tribes they passed. Following the lines of least resistance, they preferred the hardships and the obstacles of the hills, the jungles, and the wild uninhabited regions on their route, to the more formidable dangers of conflict with their fellow beings. Their movements have left no impression on the histories of other races, and their legends are not of a nature to enable the paths

they followed to be traced. Essentially they must have avoided the southerly path of the Tibeto-Burmans, and the south-easterly path of the Mon-Khmers before their westward extension, so in all probability they came by an intermediate route and eventually arrived at the Southern Shan States at a point somewhat north of Karenni. Occupying the hilly region of Karenni, at the extreme south of the Burmese Shan States, they gradually spread southwards and westwards over the Deltaic Plains and the Tenasserim Coast Ranges. But true to their nature, they avoided contact with other races, leading a wild and largely nomadic life in those portions of the country which were regarded by others as unfit for human habitation.

277. **The Shans.**—The Shan incursions into Burma fall into a category of their own. They are so different from the movements which have already been considered, that the term " migration " can hardly be considered appropriate as the designation for phenomena having so few points of resemblance. They were not the disorganised movements of bands of primitive peoples, forced by the pressure of neighbouring tribes to find fresh regions for expansion and developement. The first few sporadic incursions of Shans prior to the creation of a formidable Shan kingdom in south-western China may have been of this nature. But they were too remote and on too small a scale to leave any deep impression on the population of Burma. Subsequent invasions were more in the nature of military expeditions. They were the attempts of an established nation to extend its power and influence by means of conquest. They commenced with the destruction of the Burmese Kingdom of Tagaung and the dispersal of its Indian rulers. Burmese chronicles date this invasion at about the year 700 B.C., but it was most probably at a period corresponding very closely with the commencement of the Christian era. The Burmese however rallied again after this defeat, and it was not till the fifth or sixth century A. D. that the Shans obtained a permanent footing in the Shweli valley in the vicinity of Bhamo. From this as centre, they expanded in all directions, northwards through the Upper Irrawaddy valley, north-west to Assam, westwards to the Chindwin valley and to the south and south-east into the present Shan States. Their sphere of influence in Burma proper corresponded generally with the natural division which has been termed the Northern Hill Districts. With the gradual expulsion of the Shans from China, culminating with the conquest of Talifu by Kublai Khan in 1257 A.D., an important Shan kingdom was created with its headquarters in the Shweli valley. Here the Shans remained for several centuries subject to the vicissitudes of continuous warfare with the Burmese and Chinese. Their political power in Burma was finally broken by Alaungpaya in 1757 A.D.

278. **Racial Groups as a resultant of the various invasions.**—The preceding brief summary is essential to a correct appreciation of the existing racial distribution of the population of Burma. Without some historical preface the complex intermixture of tribes and races having but a slight affinity with each other would appear to defy all possibilities of analysis. No attempt has been made to trace the subsequent histories of the various racial constituents beyond what is necessary to explain their general distribution in the province relatively to one another. To the fierce and almost exterminatory warfare waged between the Burmese, the Talaings and the Shans for supremacy, for a period of nearly 2,000 years, but the barest references have been made. It affords a most fascinating study and would be of assistance in explaining the resultant strength and numbers of the competing races. But these advantages would not be

Invasion.		Racial groups.	Present population.	
Main stream.	Branch.		Actual.	Percentage.
Mon-Khmer ...	—	Talaing ...	320,629	2·64
		Palaung-Wa ...	172,494	1·42
Tibeto-Burman ...	Western ...	Chin ...	306,486	2·53
		Kachin ...	162,368	1·34
	Eastern ..	Burma ..	7,986,327	65·92
		Kachin Burma Hybrid.	10,167	·08
		Lolo group ...	67,418	·55
Siamese-Chinese ...	Sinitic ...	Karen ...	1,102,695	9·11
	Tai ...	Shan ...	996,420	8·23
		Total ...	11,125,004	91·82

proportionate to the length to which an adequate treatment of the subject would necessarily be carried, especially as there are several works giving special consideration to the racial and dynastic conflicts of Burmese history. Passing therefore over the centuries of time elapsing since the operation of the movements described in the preceding paragraphs, to their final resultant, it is seen that they account for 11,125,004 persons, or nearly 92 per cent. of the total population of the province. The main currents of migration, dividing into five branch movements, or six if the Lolo and Burmese migrations are separated, have by a series of actions and reactions produced nine distinct racial groups. Outside their limits is a miscellaneous collection of Hindu castes and Musalman tribes, of Christian races and Indian Christians, of Chinese and other Asiatic races, and of other minor miscellaneous tribes like the Salons, the Miao and the Yao. These make up the remaining eight per cent. of the population of the province. Their effect, if any, on its ethnography is contemporary rather than historical. They can scarcely be included in any scheme of classification pertinent to the province. They need to be considered, if of sufficient importance for consideration, separately, rather than as constituent portions of the provincial ethnical grouping.

NUMERICAL ANALYSIS OF INDIGENOUS RACIAL GROUPS.

279. The Burmese Group of Tribes.—The Burmese group comprises thirteen constituents. In numerical significance, Burmese, accounting as it does for about 94 per cent. of the total, is incomparably beyond any of the other members. The other constituents of numerical importance are Arakanese, Danu, Intha, Taungyo and Kadu, in the order named. The remaining seven groups are insignificant, both separately and in the aggregate, so far as their numbers are concerned. The existence of these groups is evidence of the fissiparous tendency that prevailed before the present era of consolidation had commenced. It is the relic of a period of dispersion when the possibilities of inter-communication between communities settled in distant localities were so small as to result in the development of dialects of identical origin on different lines. The figures demonstrate that a contrary tendency towards consolidation is now operating. The Burmese race itself has increased by 970,751, largely at the expense of the minor members of the group, for the increase for the whole group is but 889,079. It is possible to overestimate the tendency towards consolidation. It may be partly nominal, Burmese being entered as the racial designation on account of the prestige thereby given, and not because of any absolute change of race and habits. But the adoption of the name either accompanies, or is the prelude to, changes which ultimately involve the actual assumption of the racial customs of the adopted race. The group comprises about 66 per cent. or two-thirds of the total population of the province. Its increase is not due to any extension of census limits or to the addition of persons in territories where previously racial classification was not effected. It may be due to a certain extent to the absorption of outside elements such as the inclusion of the children of mixed Hindu and Burmese parentage, or the inclusion of the female children of mixed Chinese and Burmese parentage. But on the whole the process of absorption is principally in operation within the group and not outside its limits. The increase of approximately 12½ per cent. is a fair representation of the natural increase of a well defined racial group. In so far as external absorption has been operative, it has been due to the intermarriage of males from other races with females belonging to the group itself.

Tribe.	Numerical strength.		Increase (+) or Decrease (—).
	1911.	1901.	
Burmese ...	7,479,433	6,508,682	+ 970,751
Arakanese	344,123	405,143	— 61,020
Taungyo ...	19,656	16,749	+ 2,907
Intha ...	52,686	50,478	+ 2,207
Danu ...	70,947	63,549	+ 7,398
Hpon ...	378	...	+ 378
Tavoyan ...	523	948	— 425
Kadu ...	11,196	34,629	— 23,433
Chaungtha ...	2,506	1,349	+ 1,157
Mro or Mru ...	2,708	12,622	— 9,914
Taman ...	527	829	— 302
Yabein ...	1,549	2,252	— 703
Yaw ...	96	18	+ 78
Total ...	7,986,327	7,097,248	+ 889,079

280. The Burmese.—As it is almost impossible to say anything about the Burmese race that has not already been stated in the numerous books devoted to a description of their manners and customs, only the briefest reference to the statistics concerned with their progress will be made. The figures for the current census

indicate that the race is continuing to strengthen its position among the remaining racial groups of the province. Its increase of 970,751 or 14·91 per cent. since 1901 is almost identical with the percentage of the increase of population for Burma proper for the same period. Excluding the Specially Administered Territories, where changes in census limits are disturbing factors, the increase of population in Burma itself for the period 1901 to 1911 is almost exactly 15 per cent. Despite the immigration of races from India, the rate of increase of the Burmese race is almost identical with that of Burma as a whole. The increase has been partly due to the absorption of tribes within the same racial group, and partly to a tendency to enter the children of certain classes of mixed marriages as Burmese. As a comparison of the growth of the Indian population with that of the Burmese and of the indigenous races of the province has already been given, it is unnecessary to re-discuss in detail the probable future of the Burmese race, as far it can be indicated by the census records.

281. The Arakanese.—The Arakanese race or tribe is a branch of the Burmese race, inhabiting the three districts of Akyab, Kyaukpyu and Sandoway in the Arakan division. The separation of the Arakanese from the Burmese occurred at a very early period, and indeed it might almost be stated that the two branches evolved simultaneously, side by side, from the same racial elements. The principal points of difference between the two are due to the close proximity of Arakan with the sea and with the Chittagong District of Bengal. This has introduced a much larger degree of intermixture with the various Indian races among the Arakanese than is to be found among the Burmese. But it must be remembered, that the difference is one of degree and not one of kind. There is among the Burmese a perceptible admixture of Indian blood, and the foundations of the Burmese race are inseparably connected with the existence of Indian colonies in the valley of the Irrawaddy. Like the Tavoyans the Arakanese are rapidly tending to obliterate the distinctions separating them from the Burmese. The number of Arakanese returned in the census records is 61,020 less than in 1901. This decrease coincides with a more than corresponding increase in the number of Burmese in Arakan. If the present tendencies continue the existence of the Arakanese as a separate branch of the Burma racial group will cease in the ordinary course of time.

282. The Taungyos.—The Taungyos are a Burmese tribe which at some undetermined period left the Irrawaddy valley and proceeded eastwards into the southern portion of the Myelat plateau of the Southern Shan States. They occupy the States of Hsamongkham, Mawnang and Kyauklat. Surrounded as they are by Shans, and cut off from intercourse with the main branch of the Burmese race their development has been considerably modified. Their dress and many of their customs are similar to those of the Shans and Taungthus, but their language demonstrates an identity of origin with the Burmese. The similarity of their dress and their customs with those of the Taungthus, and the fact that these two non-Shan tribes live in close proximity, in the centre of a Shan environment, has suggested that the two tribes were akin. They have been jointly treated in the Upper Burma Gazetteer, and though the relationship of the Taungthus to the Karens and of the Taungyos to the Burmans is therein indicated, the total difference of identity of origin is obscured by the suggestion that the tribes have a close relationship with each other. Mr. Lowis considers that the vernacular of the Taungyos may be regarded as proof positive that they are not a section of the Taungthus who have acquired the speech of their Burmese neighbours in the plains, but a Burmese speaking community which established itself in the Taungthu country before the Burmans as a body embraced Buddhism, and has since then learnt to conform outwardly to Taungthu habits of life. They show a moderate rate of increase in numbers, demonstrating their ability to maintain their tribal identity in a more or less adverse environment.

283. The Inthas.—Like the Taungyos, the Inthas are members of a Burmese tribe which has settled in the Shan States. They inhabit the villages around the Yaung Hwe Lake. Their designation may be translated as "Sons of the lake" or "Dwellers on the lake." The lake is not of great depth, and it is the habit of the Inthas to build their houses on piles over the water, sometimes as much as half a mile from the shore. All communication between villages is by water. Tradition asserts that the Inthas were originally natives of Tavoy, but it is impossible to indicate what degree of probability there is in this account of their origin. Their language is practically identical with Burmese with a Shan pronunciation. The census

records indicate a moderate increase and demonstrate that despite the surrounding Shan influences and the adoption of the Shan dress and many Shan customs, they are no danger of losing their racial identity.

284. The Danus.—The Danus inhabit the border country which separates the Shan States from Upper Burma. They are principally to be found on the Shan side of the border, though there is a fringe extending into the Upper Burma districts from the Ruby Mines to Yamèthin. Opinions as to the origin of the Danus are various. They are a hybrid race to which many racial elements may have contributed. Undoubtedly Shan and Burmese preponderate in their composition. Some of their customs have led to the suggestion that they were originally derived from a Taungthu tribe of the Karens. But if this is the case, the Taungthu element has been submerged by subsequent racial additions. In the Upper Burma Gazetteer it is stated that the Danus like the Kadus are destined to disappear very soon, but the census records, showing an increase of 7,398 on the figures for 1901, suggest a contrary conclusion. It is possible that the connotation of the term Danu is widening and that it has come to include all the persons on the Burma border of the Shan States who are descended from mixed Shan and Burmese ancestry.

285. The Hpons.—The Hpons, who did not appear as a separate tribe in the census records for 1901 and who have appeared to the number of 378 in the current census records, are a tribe located in the upper defile of the Irrawaddy valley in the Myitkyina District. In the account of the Hpons given in the Upper Burma Gazetteer, it is stated that it is possible that they may be a mere sort of dishclout full of traces of all their neighbours, but that on the other hand, they may prove a valuable link in the ethnical chain when the detached links begin to be joined together. The latter is the more probable alternative. Major Davies considers that the Hpons in conjunction with the Tsis, the Marus and the Lashis may throw some light on the disputed point as to how the Burmese reached their present country. It is probable that the Hpons were of identical origin with the tribes who migrated along the eastern branch of the Irrawaddy river into the main Irrawaddy valley and ultimately coalesced to form the Burmese race. While their predecessors succeeded in reaching their objective, the Hpons were intercepted by the invasion of the Shans from the east. Unable to continue their migration they settled down in their present habitat and have now adopted Shan customs and are in a stage of rapid absorption by the Shans who surround them on all sides.

286. The Tavoyans.—So far as the Tavoyan can be considered to be a distinctive tribe of the Burmese racial group, the figures recorded at the census are highly misleading. Instead of the insignificant number of 523, the majority of the Burmese population of the Tavoy District (119,899) should be included. The absence of any recognition of the racial distinction in the Tavoy District itself is perhaps to be taken as proof that it has ceased to exist, and that the Tavoyans are to be considered as a branch of the Burmese race, speaking a localised dialect.

287. The Kadus.—The Kadus are one of the numerous tribes who were able to maintain an independent existence, and even to increase and thrive by the absorption of neighbouring elements, when the control of the central government in Burma did not extend to every obscure corner of the kingdom. Located on the borders of the Katha and Upper Chindwin Districts, they occupied a situation at the meeting places of four racial movements. The Chins to the east, the Kachins from the north, and the Burmans and the Shans from the south and west all extended their spheres of influence to this locality without incorporating it effectively as their distinctive territory. In a note by Mr. Blake quoted in the Census Report for 1901 it is stated that "who the Kadus are, whence they came, and when, are questions which having remained unanswered up to the present are not likely to be answered in the future." Mr. Clayton, I.C.S., in his Settlement Report on the Katha District gave the nearest answer to these questions that has yet been attempted. As a Settlement Report is not available for reference except in a very limited sense, his opinion may be quoted as supplementing and modifying the information given in the Census Report of 1901 :—

The Kadus.	
1901	34,629
1911	11,196
Decrease ...	23,433

"The origin of the Kadus has long been a vexed question. There are five or six different tribes among them, but all trace their descent from one or sometimes from both

of two distinct stocks. The first describe themselves as Chingyan or alternatively Chingywin-Chingyan, *i.e.*, the remnant of the Chins."

"These claim to be aboriginal inhabitants who have always lived on the slopes of the Maingthon mountain having affinities with the Kachins of further north. It is probable that they are a back water of the prehistoric wave of Chin immigration, with possibly an admixture from the earliest Kachin arrivals who were rounded up into the Katha hills by the growth of the Shan power of Mohnyin. The second stock claim to be refugees from the country of Mahamyaing in the Shwebo and Upper Chindwin Districts after the fall of the Princess of Peitthano, a city on the Sebadon Chaung, before King Duttabaung of Thayekittaya or Prome. The Mahamyaing country would appear to have been peopled by an off-shoot of the main Burman immigration from Tagaung, during its progress down the Irrawaddy valley, though in this case also a considerable admixture of the previous Chin inhabitants was probably present. This off-shoot appears to have developed independently of the main Burman power, which later moved its capital to Prome, and to have fallen before it when the Talaings of Pegu forced the Myaing either before or after their defeat the Burmans apparently gave the name of Kantu. Some of them were driven north to the Katha hills, some including the Princess were, according to the legend, carried off to Sittha in Taungdwingyi, near which town there are the ruins of a second Peitthano to which the Shwebo legend has been transferred, and in the neighbourhood there is still a proverb 'Taungdwin sit hlyin Kantu' scratch a Taungdwin man and you will find a Kantu. But the majority were undoubtedly absorbed in the main Burman race, as indeed the Kantus of Taungdwingyi have been.

"The Kantu refugees to Katha coalesced with the wild tribes of the Maingthon range and of the Upper Chindwin and produced the Kadu as we know him. The predominant influence among them now is probably the Chingyan or aboriginal element as may be seen from their spirit worship, the principal object of which is the Ashingyi or great nat of the Maingthon mountain. The Kadu language has admittedly been acquired since the people took refuge in the hills and the Kadus of Pyinsala on the Shwebo border disclaim all knowledge of it. It is a jargon of Burmese, Shan and Kachin words, and it is probable that what special peculiarities it has of its own it has derived from Chingyan sources. The Gana Kadus differ in dialect somewhat from the others. This may be due to the fact that they joined with the tribes of the Upper Chindwin forests and not with those of Maingthon."

Reference has already been made to the suggestion of Mr. Grant Brown that Kadu was the language of one of the tribes which came to Burma long ago and eventually formed what is now the Burmese people. It seems more probable that in their origin they were a tribe intermediate between the Chin and the Kachin branches of the western Tibeto-Burman invasion. The locality in which they settled facilitated intercourse with the outlying inhabitants of neighbouring races, without affording opportunities for incorporation. It became a backwater uninfluenced by the main currents of national life. Refugees from the stress and strain of intertribal conflicts found security within its limits. The primitive Chins, the migrating Kachins, the fugitive Burmans, and the surrounding Shans all amalgamated to form an unobtrusive community in an obscure part of the country. But with the extension of the central authority, and still more, with the establishment of peace and security, the isolation of the Kadu country has been impaired. A hybrid tribe with a hybrid language, it has been unable to withstand continuous contact with the outside world. It is gradually being absorbed by its neighbours the Kachins, the Shans and the Burmans, the latter more especially. Its numbers are less than a third of those recorded ten years ago. In dress, in speech and in customs, its members are gradually transforming themselves, and with diminishing numbers the disintegration will probably proceed with accelerated rapidity.

288. The Chaungthas.—In the census report for 1901 Mr. Lowis classed the Chaungthas in the Burma racial group, but indicated that the classification was tentative and that further research was necessary to show whether the Chaungthas had more Burmese or more Chin blood in their composition. In the course of the ethnographical survey of Burma, Mr. Lowis modifies the classification and places the Chaungthas as a hybrid Chin tribe, remarking that it is doubtful whether they are Arakanese who have amalgamated with their Chin neighbours or a tribe of Chins which has adopted the dress, religion and speech of the Arakanese. I have preferred to retain the Chaungthas as a tribe of the Burma group. In the uncertain realm of ethnical classification in Burma, priority must be given to linguistic evidence. The written character of the Chaungthas, though differing greatly from the Burmese form, was undoubtedly derived from Burmese or Arakanese. The colloquial form of their language is Arakanese with dialectical differences. The traditions of the Chaungthas attribute their origin to the Talaings. Among local authorities, the theory that the Chaungthas were a Chin tribe which has adopted Arakanese characteristics receives no support. They

are, in all probability, a branch of the Arakanese who separated from the main stock at some indeterminate period and selected to dwell among the hills bordering Kaladan valley of the Akyab and Northern Arakan Districts.

The following quotation from the revised Akyab Gazetteer of 1905 gives in a concise form their principal traditions and characteristics:—

"The Chaungtha or children of the stream are descendants of Pyu and Mon of Burma. The story relates that in A. D. 1596 the king Min Rajagyi of Arakan having rendered assistance to the king of Taungu in investing the capital of Pyu and defeating the Shans and driving them off from the country, he received a portion of the treasure and a princess of the supreme king. Thousands of Pyu and Talaing people were sent along with the princess to Arakan. The king of Arakan made the princess a queen and settled her followers on the east of the Kaladan river near Taywe-chaung. The princess was styled Pegupyu Minthami. Her followers were said to be mostly soldiers and archers who were divided into two divisions under the command of Thama Legyaw and Ledet-Legyaw. Whilst staying near Taywe-chaung they proved themselves useful in suppressing the rising of the Chins near the Yomas. When the Shandu Chiefs Muntin and Munprun rose in rebellion in the Upper Kaladan the two Talaing Chiefs were sent there to suppress the rising. In course of time these Talaings and Pyus became homesick and many of them ran away back to their country. When the king knew about it, he removed them to the west of the Kaladan river and settled them in the following localities in the hills which extend as far as Chittagong Hill Tracts. They were sent to the hills for their reputed bravery and hardiness to control the hill tribes. In manners and customs they differ but little from the Arakanese and Burmese, they have black straight hair, high cheek bones, oblique eyes, and scanty beard. They are Buddhist and worship 'Nats' and all customs common to primitive tribes are strictly observed. The Chaungthas in the Chittagong hill tracts tie the hair at the back instead of on the top. It might be that the Chaungtha of Chittagong having lived amongst tribes who wear their hair thus, or it might be their inherited custom as the Talaings in ancient time used to wear their hair in a large knot at the back of the head. These were Arakanese who became Chaungtha by long residence amongst them and intermarriage. Their descendants sometimes use an insulting term 'Tameinhtan' (carriers of petticoats of the Pegupyu princess) towards true Chaungthas. It might be that the Chaungthas in this district being far away from the home of their ancestors have found it convenient to adopt local customs and to worship local Nats."

289. Mros or Mrus.—Sir Arthur Phayre writing of the Mru tribe states that it is a hill tribe now much reduced from its ancient state. He estimated that the number of the tribe amounted to about 2,800 souls, but the census of 1891 gave the number of Mrus as 15,891. In 1901 the numbers had declined to 12,622 and in 1911 only 2,708 were recorded, a number which approximates with that mentioned by Sir Arthur Phayre. There is no doubt that the tribe is in a stage of rapid disintegration. Its members have been driven from their original habitat on the Kaladan river by the invasions of the Khamis and the Chaungthas. They have retreated before these invasions towards the west and now occupy the hills on the border between Arakan and Chittagong. The striking fall in numbers may be due partly to the absorption of the members of the tribe in a stage of retreat and decay by their neighbours, and partly to a further westward movement into Chittagong. The extent of the latter cannot be estimated until the figures for Eastern Bengal and Assam are published. Mr. Lowis has classed the Mros as a Chin tribe. Linguistic evidence points rather to a Burmese origin. There is also traditional evidence that the Mru and the Burmese races are of the same lineage. The exact position of the tribe in the scheme of classification is a matter of some difficulty, but the weight of evidence suggests its inclusion in the Burmese racial groups.

290. The Tamans.—The following narrative from Mr. Grant Brown's Gazetteer of the Upper Chindwin District summarises all that is known of the Tamans. Only 527 were returned as such in the census records.

"The Tamans are found only in the Upper Chindwin, and nearly all of them in a small area in the neighbourhood of Tamanthi or Tamanthe, on the Chindwin 62 miles above Homalin. They speak a distinct language of the Tibeto-Burman group, more nearly allied to Burmese, at least in syntax, than to Naga, Chin, or Kachin. Like the so-called Shans around them, they wear Burmese dress, and in appearance they do not differ from their neighbours. Their tradition is that their ancestors were driven out from Okkat in China (possibly the same name as Hokat, a village on the Irrawaddy in nearly the same latitude as Tamanthi) and settled centuries ago in what is now the bed of the Indawgyi lake, just half-way between Tamanthi and Hokat. A sudden flood destroyed their villages and drowned most of them, and the survivors fled to the mountains west of the Chindwin. Here they lived the life of the wild Nagas discarding clothes but after many generations they came down once more to the plains, and founded a village near the present site of Tamanthi. Their story receives some confirmation from their religious rites. Though professing Buddhism, they sacrifice a pig to their guardian deity twice a year, and set the

meat before him with chopsticks, the use of which for private purposes is now quite unknown. The pig is slain with a club, and its blood sprinkled on the worshippers by the priest, who has previously uttered prayers for the welfare of his people.

"The Tamans have only lately begun to intermarry with the people found, and to this fact, no doubt, they owe the preservation of their language and their religious rites. Their neighbours have a strong belief perhaps encouraged by the Tamans themselves, in their supernatural powers, and this may have helped to preserve their existence as a separate community. Along with other accomplishments they are supposed to be able to turn themselves at will into tigers. The Malins, though they do not call themselves Tamans, may be regarded as a branch of the same people. Their language is almost extinct, being now fully known to only one old woman. It is merely a dialect of Taman."

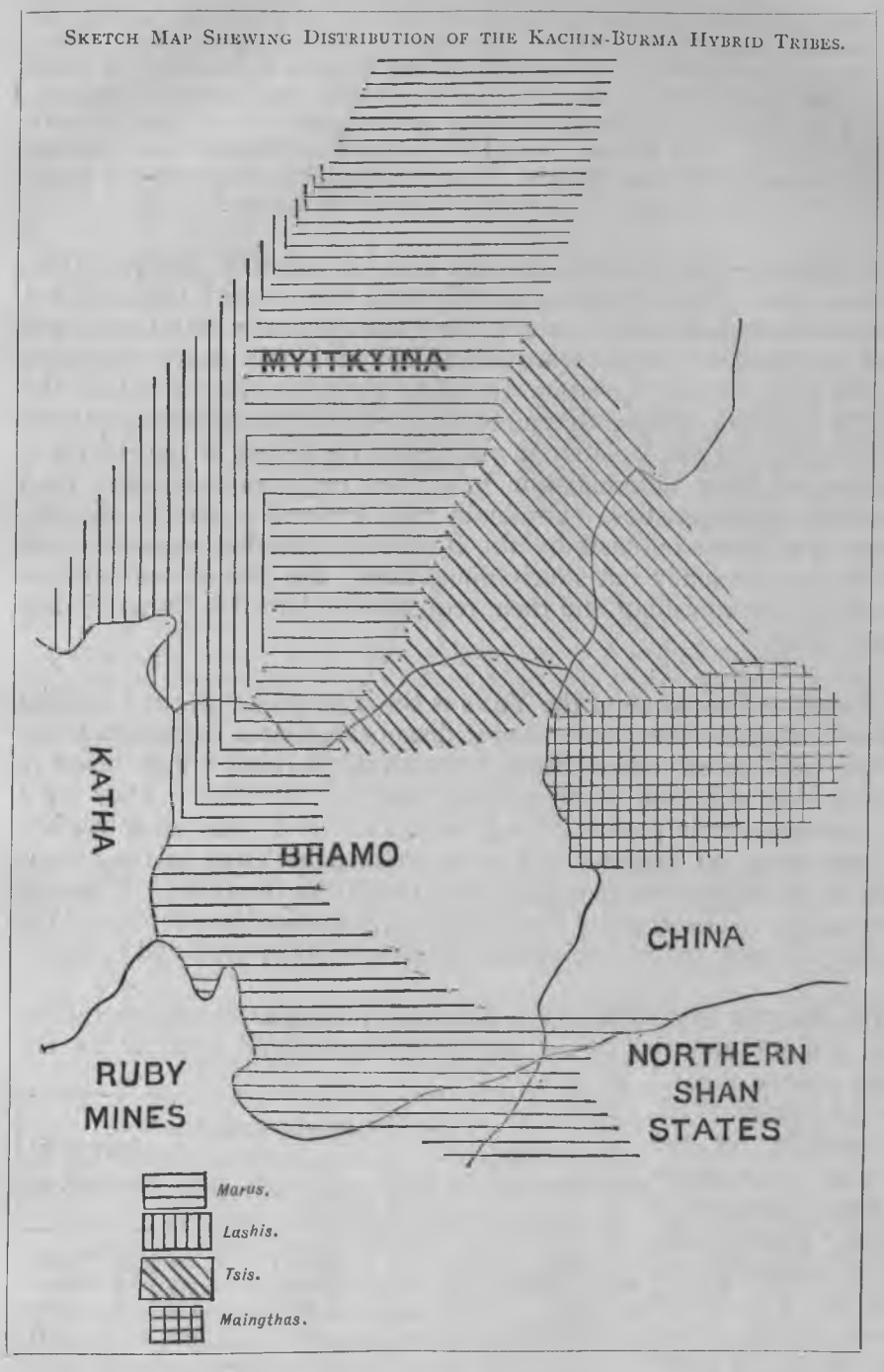
291. **The Yabeins.**—The Yabeins can scarcely be called a distinct tribe. Originally of Burmese race, their occupation as silkworm rearers, with the resultant destruction of the silkworm chrysalis, brought them into discredit with their more orthodox Buddhist neighbours. They were either not of a sufficiently inventive turn of mind to create the fiction necessary to bring their occupation within the pale of Buddhism, or were not sufficiently numerous to enforce universal acceptance of such fiction if invented. Their isolation in villages on the slopes of the Southern Pegu Yomas encouraged their differentiation from their neighbours in other than religious and industrial characteristics. Gradually they evolved a distinct dialect, and their treatment as religious outcasts by the Burmese induced a separate tribal life. Their numbers are gradually but slowly diminishing, the distinctions between them and the Burmese are vanishing and their reabsorption into the Burmese race is only a question of time.

292. **The Yaws.**—The home of the Yaws is the Yaw valley of the Pakôkku District. Like the Tavoyans, they have almost disappeared as a distinctive tribe, and only enter their tribal name when distance from their habitat brings home to them the differences that still exist between them and the Burmese. They are a hybrid tribe, the Burmese strain predominating, with Shan and Chin as subsidiary constituents. There were 96 persons who were entered as Yaws in the census records, but this is no indication whatever as to the strength of the tribe. It merely indicates that they are being absorbed by the Burmese, the nominal assumption of the latter race preceding to some extent the actual adoption of its speech and customs.

293. **Kachin-Burma Hybrids.**—The extension of regular census operations in the Myitkyina district and the closer enumeration rendered possible by the extension of administrative control on the north eastern border of the province is responsible for the comparatively large increase in the numbers of three members of this group of tribes. Superficially there is nothing to distinguish the Lashis, the Tsis and the Marus from the Kachins among whom they live. They live in the midst of Kachin country, they have adopted the Kachin customs and dress, and the Tsis are acknowledged as belonging to the Lepais, one of the five main tribes of the Kachins. Similarly the Maingthas, or A-changs, would appear to be closely allied with the Shans, but linguistic investigations point to the conclusion that these four tribes are more closely allied to the Burmese race in their antecedants. There is a growing consensus of opinion that these tribes are either the last groups of the Burmese immigrants who were cut off before they reached the Irrawaddy valley or that they were tribes of identical origin with the Burmese who commenced their migration at a later period, and were consequently unable to push their way through the intervening tribes who had subsequently occupied the valleys on the route to their destination. The Lashis, the Tsis and the Marus settled in the valley of the Nmai-Hka or eastern branch of the Irrawaddy, and it is probable that the Maingthas are a southern branch of the Tsis who have penetrated further south into the valley of the Taiping. The first three of these tribes have intermarried with the Kachins and are rapidly losing their distinguishing characteristics. The Maingthas have similarly mixed with the Shans among whom they have settled.

Tribe.	Numerical strength.		Increase (+) or Decrease (−).
	1911.	1901.	
Lashi	2,908	40	+ 2,868
Tsi (Szi)	3,003	317	+ 2,686
Maru	3,855	149	+ 3,706
Maingtha	401	749	− 348
Total ...	10,167	1,255	+ 8,912

The importance of these tribes ethnically is that they probably form with the Hpons a series of links connecting the Burmese race with its original sources in the region of the head waters of the Yang-tse-Kiang and the Hoang-Ho.



Sketch Map Shewing Distribution of the Kachin-Burma Hybrid Tribes.

It is a matter of extreme difficulty to estimate their total numbers, occupying as they do a situation extending beyond the northern administrative border of the Myitkyina District, and stretching along the eastern borders of the Myitkyina and Bhamo Districts into Chinese territory.

294. **The Marus, Lashis and Tsis.**—The Marus or Laung, the name by which they call themselves, are to be found along the whole of the explored portion of the Nmai-hka. They also extend southwards through the Bhamo District as far as the Shan States of North Hsenwi, and eastwards beyond the Burmese frontier into China. In their southern migration they were headed off by the Kachins who intercepted them from the west and a process of gradual assimilation commenced. It is probable that the whole of the members of the group termed the Kachin-Burma hybrids are branches from the Marus, the distinctions between them indicating the degree to which their amalgamation with the Kachins and Shans has been effected, the Marus being those who have been least influenced by external influence, or rather who have resisted it for the longest period.

The Lashis are a branch of the original tribe of Marus. The region they occupy is far less extensive than that of the Marus, being confined to a restricted area around and about the western boundaries of the Bhamo and Myitkyina Districts. According to tradition the Lashis are the descendants of a Chinaman and a Maru woman. They are, however, in all probability a section of the Marus who have accepted amalgamation with the Kachins with greater readiness than was shown by the greater portion of the tribe. Though not recognised by the Kachins as such, they have been more completely absorbed than the remaining tribes of this group.

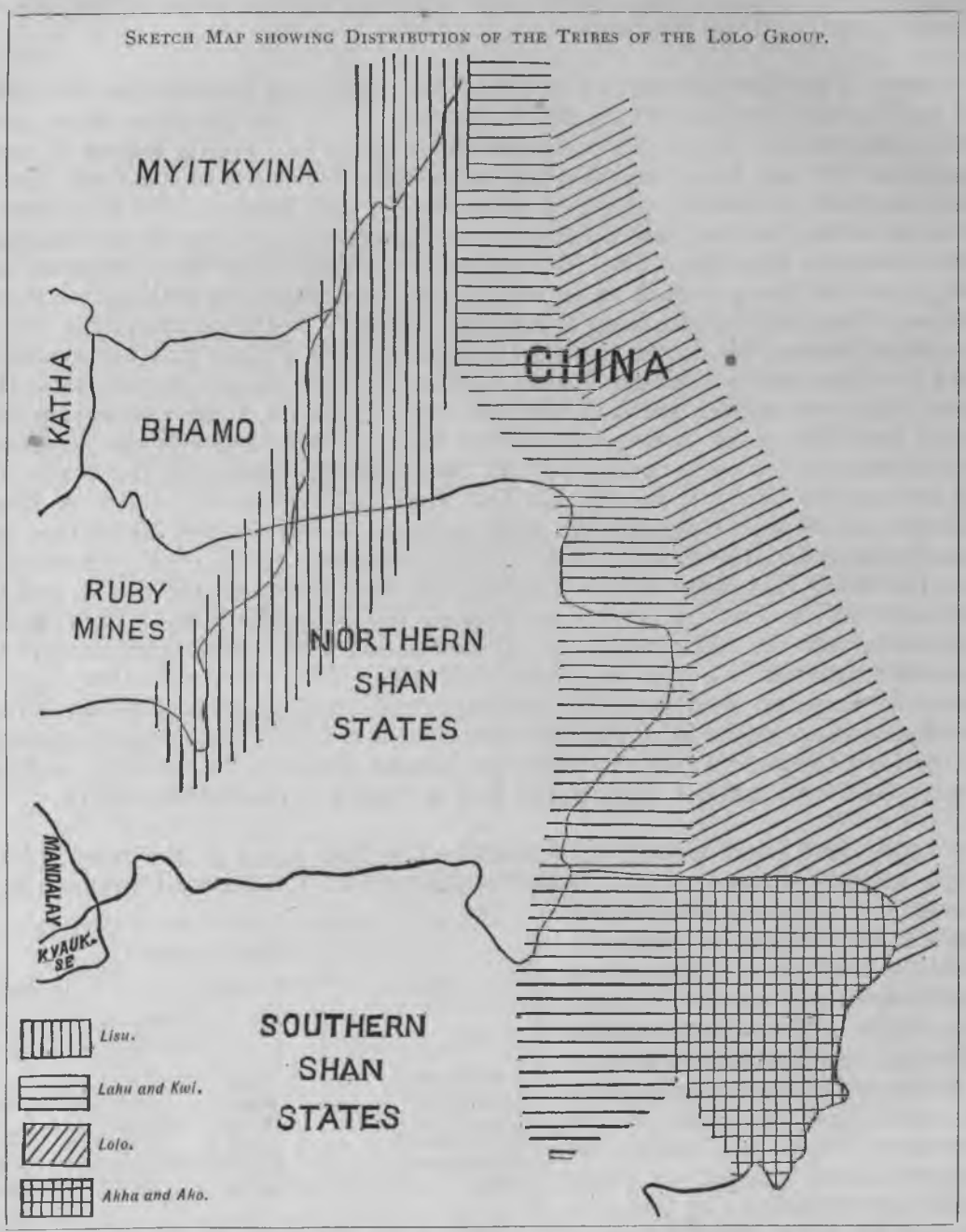
The Tsis or Szis were originally the most southern branch of the Marus who first accepted assimilation with the Kachins as being inevitable. So complete is the amalgamation that they claim to belong to the Lepai tribe of the Kachins, though on the Kachin side only the Tsi Chiefs are recognised as being Lepais. They now occupy a locality on the eastern border of the Myitkyina District though scattered communities extend southwards along the eastern border of the Bhamo District into the Möng Mit State.

295. **The Maingthas.**—The superficial distinctions between the Maingthas on the one hand and the Marus, the Lashis and the Tsis on the other are so great that their classification together in one racial group has been a matter of much hesitation. It has been seen that the latter three tribes are of identical Tibeto-Burman stock in different stages of absorption by the Kachins, and that there is little or nothing but the almost disappearing remnants of their speech to distinguish them from the Kachins. The Maingthas have adopted the dress, customs and religion of the Shans to such an extent that there appears to be nothing in common between them and the remaining tribes of the group. In the course of the Ethnographical Survey, Mr. Lowis classes the Maingthas as a Shan tribe and considers that they are merely Chinese-Shans. On the contrary, Major Davies states that though they sometimes speak of themselves as Shans on closer questioning they admit that they really belong to a distinct race. Their language has no affinity with Shan and is closely connected with the languages spoken by the Marus, the Lashis and the Tsis. It is probable that their ancestry is a complex of Maru, Kachin and Shan. Originally the most southern branch of the Marus they first amalgamated with the Kachins and formed a section of the Tsi tribe. Descending into the Möng Hsa valley of the Taiping river, they there met the Shans, and the admixture of the Tsis and the Shans formed the Maingtha tribe. They readily intermarry with the Chinese so that a determination of the racial ingredients of the present generation is a matter of some difficulty. It is the weight that must be given to linguistic evidence that has suggested their present grouping. Their headquarters are beyond the Burmese frontier, and it is only the surplus population of their overcrowded valley, travelling as pedlars, builders, blacksmiths and carpenters in Burma and the Shan States that is entered in the census records.

296. **The Lolo Group of Tribes.**—The Lolo group is the result of the most easterly division of the southern migration of the Tibeto-Burmese tribes. Instead of pressing southwards towards the Irrawaddy valley the tribes of this group diverged in a south-easterly direction through the valleys of the Salween and the Mekong. At the census of 1901 a tentative grouping of these tribes as the Lisaw sub-group of the Burmese Group was made, but Major Davies prefers to place them linguistically as an independent group of the Tibeto-Burmese family. In this he is supported by various authorities, and his classification has been adopted both in the matter of grouping and in the name given to the newly recognised group. Not only are the Lolos the most important of the tribes comprised, but their language is the foundation for the languages of the remaining tribes, Lahu, Lisu and Akha being scarcely more than dialects of some original Lolo tongue. The six members of this group may be considered as falling into three divisions, Lolo, Lahu and Kwi forming one closely associated division, Akha or Ako forming a second, while Lisu by itself is the third. The increase in numbers of the tribes of this group is due partly to the extension of census limits and partly to the extension of tribal classification to the population on the northern boundaries of the Myitkyina District and the Northern Shan States. Perhaps the most significant ethnical fact to record about the members of this group is the rapidity of their absorption by the Chinese. It has proceeded furthest among the Lolo, the parent tribe of the group, because it has been brought most closely into contact with the absorbing race. Among the tribes to be found within the Burmese frontier the process of assimilation has had the least effect, partly

Tribe.	Numerical strength.		Increase.
	1911.	1901.	
Lolo (Myen) ...	339	...	+ 339
Lisu (Lisaw) ...	8,487	1,427	+ 7,060
Lahu (Muhso) ...	18,103	15,774	+ 2,329
Kwi (Lahu Hsi) ...	3,189	2,882	+ 307
Akha (Kaw) ...	33,181	26,020	+ 7,161
Ako	4,119	1,506	+ 2,613
Total ...	67,418	47,609	+ 19,809

because they are more remote from contact with the Chinese, and partly because only peaceful methods of penetration are possible. These tribes however have large numbers of members outside the Burmese borders in contact with an advancing Chinese population. Moreover an administrative boundary is but a partial bar to racial expansion. The transformation of the transfrontier Lisus into



SKETCH MAP SHOWING DISTRIBUTION OF THE TRIBES OF THE LOLO GROUP.

Chinamen in the valley of the Shweli has its effect on the Lisus within the Burmese borders. The transformation of the Akhas into the half Chinese race, the Ako, beyond the frontier has been brought within the boundaries of the province by the migrations of the Akos into Kengtung. Even the Lahu, the tribe of this group offering the most strenuous resistance to Chinese aggression and expansion, have succumbed, and are gradually adopting Chinese dress, customs, and language.

297. **The Lolos.**—Though only an insignificant number of Lolos are to be found in Burma, they are the premier tribe of those included in this group. Their original home is in the Taliang Shan, a range of mountains lying between the valleys of the Chien-chang and the Yang-tse. Here the Lolos live governed by their own chiefs and independent of Chinese rule. Continuing the description by means of an extract from the frequently quoted work of Major Davies :—

"From here they have spread very widely over the neighbouring part of western Ssu-ch'uan, and southwards throughout the province of Yun-nan. They are certainly the most universal and widely-spread tribe of western China. Westward they are found on the Burmese border about lat. 23° 40′ and even just within Burmese territory. Eastwards they extend to the very extreme borders of Yun-nan and even into Kuei-chou province (lat. 27°

20′, long. 105°). Northward in Ssu-ch'uan they reach nearly if not quite to the 30th parallel of latitude. Southwards they have spread into the Ssu-mao district well below lat. 23°. Over a very large part of Yun-nan they form the bulk of the hill population, and they are certainly the most numerous of all the non-Chinese tribes in that province. The Lolos of Ssu-ch'uan are a very fine tall race, with comparatively fair complexions, and often with straight features, suggesting a mixture of Mongolian with some more straight-featured race. Their appearance marks them as closely connected by race with the eastern Tibetans, the latter being if anything rather the bigger men of the two. Further south in Yun-nan the pure Lolo type has perhaps somewhat deteriorated, but even here one often finds tall and fairly straight-featured people, and they are always a finer race physically than the Lisos, Lahus, Wonis and other Lolo-speaking tribes."

The following extract from the same work will indicate the extent to which Chinese influence is spreading among the tribes of the Lolo group :—

"Of the Lolos of Yun-nan there can be no doubt that many are being gradually absorbed by the Chinese. I have come across villages in all stages of this process. Some have gone so far as to talk Chinese among themselves and to deny their Lolo origin. Still there are large numbers of this race who still retain their language and customs. One of the largest of these tribes are the people whom the Chinese call Meng-hua Lolo or Meng-hua Jen. As their name indicates they inhabit the district of Meng-hua Ting (lat. 25° 15′, long. 100° 20′) ; and they form almost the entire population of the hills of these parts. Southwards this branch of the race extends to the Yang-pi river, and a few scattered villages of them are found much further south. The men here dress in Chinese fashion. The women wear blue trousers with a blue skirt over them both reaching to the knee : the jacket is of the same colour and has no sleeves. Chinese influence is gradually extending here : the men can all speak Chinese and some can read and write it. In a few more generations the Lolo language will very likely die out here."

298. The Lisus.—The headquarters of the Lisu tribe lies in the valley of the Salween on the easterly border of the Myitkyina District, extending northwards beyond the boundary of the administered territory. Its members are of a roving disposition, and they can be found in small scattered communities in the valley of the Taiping river on the eastern borders of the Bhamo District, in the Shweli valley between the Ruby Mines District and the Northern Shan States, and even so far south as the State of Kēngtūng in the Southern Shan States. The members of such southern communities mingle with the various races with whom they come into contact, and gradually acquire the customs and characteristics of their neighbours. They are specially susceptible to Chinese influences intermarrying readily with the Chinese and readily adopting the Chinese race and designation. Many of the so-called Chinamen of the Upper Shweli valley are the descendants of the Lisus and the Chinese with whom they intermarried. The Lisu are to be found in their primitive state only in the valley of the Salween to the east of the Myitkyina District. Here they are quite independent of Chinese influences from the east and the Kachin pressure on the west. It is impossible to estimate their true numbers. The improvement of census enumeration and racial classification on the north-eastern frontier has resulted in a large increase in the numbers recorded in the census schedules, but it is probable that the majority are to be found beyond the administrative limits of the province. For particulars concerning the latest researches into the manners and customs of this tribe reference must be made to the work on Yunnan by Major Davies, and to the paper on the Lisu tribes of the Burma-China frontier by Messrs. Rose and Brown published in the Memoirs of the Asiatic Society of Bengal, Volume III, No. 4 of 1910.

Lisu Tribe	
1911	8,487
1901	1,427
Increase ...	7,060

299. The Lahus and Kwis.—The Lahus or Muhsos, in Burma, are settled principally in the eastern portion of the Southern Shan States. Their language like that of the Lisu is simply a dialect of Lolo. Originally descending the valley of the Salween with the remaining tribes of the Lolo migration they followed a middle course down the valley of the Mekong, the Lisus pursuing a more westerly route down the Salween, and the main branch spreading in an easterly direction over the hill ranges of Yunnan. Their course down the Mekong valley brought them into contact with the Was. They forced themselves through the Wa country into the eastern portions of the Southern Shan States. Both their dialect and their race has been modified by contact with the Was, though their speech still remains primarily a dialect of Lolo.

Lahus.	
1911	18,103
1901	15,774
Increase ..	2,329

They now occupy a situation between the Salween and the Mekong partly in the eastern portion of the Southern Shan States, partly in Chinese territory and partly in Northern Siam. This area has been but slightly affected by changes in census limits and the comparison between the numbers recorded in 1900 and 1901 is a legitimate representation of their numbers in Burma at these periods. It is however impossible to estimate what proportion the numbers recorded in Burma bears to the total membership of the tribe as large numbers live in Chinese territory. Although the Lahus have been strenuous opponents of Chinese extension in the past they have been subdued and are gradually being assimilated by intermarriage and the adoption of Chinese dress and customs. The Kwis or Lahu-hsi are simply the most southern branch of the Lahus to be found in the Southern Shan States.

Kwis.	
1911	3,189
1901	2,882
Increase ...	307

300. The Akha and Ako.—The Akhas or Kaws and the Ako really form two branches of the same tribe. The Akos have not been long resident in Burma having migrated from over the border into the eastern portion of the Kengtung State a few generations ago. They are of hybrid race being an admixture of trans-frontier Akhas with the Chinese. Both tribes are included by the Chinese in the general term Wo-ni, which includes all those tribes living in Southern Yunnan speaking dialects of the Lolo language. Though of Lolo origin, their dialects do not show close affinities with those of the Lisu, the Lahu and the Kwi, and must have been derived from the parent stock in a different manner and at a different period. They occupy a territory comprising the eastern portion of the Kengtung State, the adjoining French Lao States and a portion of Southern Yunnan. Like all the tribes of the Lolo group they assimilate readily with the Chinese.

Tribe.	1911.	1901.	Increase.
Akha ...	33,181	26,020	7,161
Ako ...	4,119	1,506	2,613

301. The Kuki-Chin Group.—The Kuki-Chin group of tribes inhabits the territory extending from the Naga Hills in the north down into the Sandoway District of Burma in the south; from the Myittha river on the east almost to the Bay of Bengal in the west. Only a portion of this region lies within the province of Burma, the northern and western portions falling into the province of Assam. The Gazetteer of the Chin Hills by Messrs. Carey and Tuck is the main source of information for the tribes dwelling within the administrative area of the Chin Hills. All the remaining information available concerning the tribes within Burmese limits has been condensed in various official publications, including the Upper Burma Gazetteer, the Census Report of 1901, and the fourth volume of the series published in connection with the Ethnographical Survey of Burma. It is impossible to present a complete statistical analysis of the tribes of the Kuki-Chin group to be found within the limits of the province of Burma. In the heart of the Chin country is a large area of unadministered territory belonging nominally to the Northern Arakan District and to the Pakôkku Hill Tracts. An estimate has been made for the population of the unadministered portion of the Pakôkku Hill Tracts, and the numbers estimated have been allotted to their tribal divisions. But no attempt whatever has been made to enumerate or estimate the tribes in the unadministered portion of the Northern Arakan District, which comprises an area of 3,733 square miles. The existence of this area in the heart of the Chin territory precludes the possibility of estimating the number of persons belonging to each respective tribe. It is extremely doubtful if a complete list of the communities having an independent tribal existence could be prepared from existing materials. To increase the difficulty, the racial and tribal instability which is to be found throughout the province appears to have reached its maximum among the Hhins, especially those residing in what is now the administrative area of the Chin Cills. At the time of the publication of the Gazetteer (1895) the tribes within this territory were in a stage of transition, being gradually brought from a state of continuous warfare with one another into an administration under which peace and security were assured. Moreover, although the number of unspecified Chins has diminished both absolutely and relatively as compared with those in the records of

Kuki-Chin Group.	Numerical Strength.		Increase.
	1911.	1901.	
Allotted to specified tribes.	175,163	35,315	139,848
Unspecified ...	131,323	179,292	– 47,969
Total ...	306,486	214,607	91,879

1901, there still remain 131,323 Chins not allotted to any specified tribe. It is true that the majority of these are Southern Chins who have lost their tribal organisation on coming into contact with the Burmese. But a considerable number still remain who are recorded as Chins in default of a correct enquiry as to their tribal designation. In the absence of a thorough knowledge of the constituent tribes comprising the Kuki-Chin Group within the province, and of a logical scheme of classification based on ethnical considerations, the figures for the group as a whole will first be considered, and the figures for the separate tribes will then be treated according to the administrative areas in which they fall.

The increase in numbers of the members of the Kuki-Chin Group by 91,879 to a total population of 306,486 has been largely due to the inclusion of the Chin tribes of the Pakôkku Hill Tracts for the first time into the racial record. This has accounted for an increase of 26,053. There has also been a much closer enumeration of the tribes of the Chin Hills, the Chin population rising from 83,795 to 117,588, an increase of 33,793. The same may also be said of the enumeration of the Chins in the regular districts of the province. Living as they do in the hills on the extreme borders of such districts, administrative control over them has been but slight in the past. It has gradually strengthened and enabled the census enumeration to be more effective than has hitherto been possible. There are thus three factors which contribute to a large increase in the Chin population since 1901. To the natural increase of births over deaths must be added the closer enumeration resulting from more effective control over the region occupied by the Chins, and the inclusion of the Pakôkku Hill Tracts within the limits of racial classification. Only the last of these three factors is capable of accurate determination.

302. Chins unspecified.—The entry of the word Chin in the census enumeration schedule may mean either that the person returned belongs to one of the numerous tribes of the Kuki-Chin Group, but that his tribe has not been ascertained, or it may be used in its more restricted sense to denote a member of one of the southern or tame Chins who dwell on the borders of the regular districts on each side of the Arakan-Yomas. The exact connotation of the term in its more restricted meaning as given by Mr. Houghton is as follows: —

"The Southern or tame Chins, as they are sometimes called to distinguish them from the Northern or wild Chins inhabit both sides of the Arakan-Yomas and are found in the Akyab, Kyaukpyu and Sandoway districts on the west, and the Minbu, Thayetmyo, Prome and Henzada districts on the east. They are very closely related to the wild Chins, Mros, Kamis, etc., for though the languages of these are mutually unintelligible, a comparison of their vocabularies shows the difference to be merely one of dialect, and philologically of no great importance. The tame Chins are in fact merely a tribe which formerly inhabited the present Lushai or wild Chin country, and which has been forced south by a *vis a tergo* at probably no very distant epoch. This movement to the southward is still going on, though slowly, for tribes and clans must be very hard-pushed indeed before they definitely abandon their ancestral hills and valleys. There is a tendency amongst the southernmost Chins to merge into the Burman race, and this is also the case amongst those who have gone farthest from the Yoma to the eastward."

On leaving the turbulent northern regions, the necessity for a close tribal organisation to ensure safety and security becomes less imperative. Groups and combinations formed with special reference to particular needs find but little power of cohesion when the necessities dictating their formation have been removed. On arrival at a locality where tribal divisions are not necessary to individual existence they are rapidly discarded and assimilation with the inhabitants of the neighbourhood is gradually accomplished. In this manner a comparative uniformity has been established among the Southern Chins. The figures for the Khami tribe classed by Mr. Houghton as wild Chins in the Akyab District are most instructive as an illustration of this tendency. In 1901, there were 11,595 members of this tribe in the Akyab District. In 1911, it numbered only 2,727 members. In the short interval of ten years the tribal distinction has almost vanished, and its members have assimilated themselves, or claim to have assimilated themselves, with the general body of Southern Chins where such distinctions are no longer necessary.

303. Tribes and Clans of the Chin Hills.—The influence on racial development exercised by administration is strikingly illustrated by a comparison of the conditions prevailing in the regularly administered areas of the province and those areas but recently brought under administrative control. In the former tribal distinctions rapidly vanish and racial uniformity gradually begins to extend. The Chin Hills Gazetteer shows a region just emerging from an era of absence of

central control tending towards tribal divisions, and being brought under conditions somewhat similar to those under which the racial uniformity of the Southern Chins has developed. Numerous tribal divisions still remain, the period elapsing since the conditions were changed having been too short to produce more than superficial changes. The quotations given have been selected partly with a view to indicating the effect of changing circumstances on tribal organisation. The tribes and clans of the Chin Hills Administrative Area can be divided into three more or less associated groups which may for convenience be called the Northern, the Tashon, and the Baungshe groups. The first of these, the northern group, includes the Thados with their associated tribes the Yos and the Nwitis, the Soktes, including the Kanhow clan, and the Siyins. The headquarters of the Thados lies beyond the border, in the hills of Manipur, and the majority of the Nwitis have been driven from their homes in Chinland only a small remnant remaining. In the Gazetteer, the Soktes, the Siyins and the Thados are treated as separate tribes, but there are many points of close association which suggest their inclusion in one common group. The Soktes, the Siyins and the Nwitis all trace their origin to Chin Nwe, a village nine miles from Tiddim. The following extracts from the Gazetteer, to which reference must be made for fuller information, indicate the influences operating to produce the present grouping of tribes.

"The Yo tribe three generations back occupied the tract of country now inhabited by the Kanhow clan of Soktes, and many of the Kanhow villages are inhabited still by Yos, whose tribal name has given way to that of Kanhow. As has been shown in a previous chapter, Kantum, the Sokte, conquered all the inhabitants right up to the borders of Manipur, and Kanhow, his son, founded Tiddim village and ruled the newly acquired conquests of his father. The conquered Yos thus became known as 'Kanhowte,' Kanhow's men, and as they intermarried with the Soktes who settled north with Kanhow, there is now no real difference between the conquerors and the conquered. Soktes, Yos, and Kanhows are practically one people, though no Sokte Chief would admit that he is not of superior birth to a Yo. The Yos who still live in the Chin Hills are treated as Soktes. The great majority of them live in the Kanhow tract and are subordinate to Howchinkup. For many years past, as is shown in the Manipur records, numbers of emigrants crossed the Northern Chin border and settled down along the south of Manipur plain, west of the longitude of Howbi peak and in the hills south of Cachar. These Yos as well as the Thados and Nwites are called by the Manipuris Kukis or Khongjais, who only made their acquaintance after they had migrated north, but the people call themselves by the name of Yo.

Thado	1,009
Yo	3,918
Nwiti	832
Sokte	11,368
Kanhow	10,882
Siyin	3,127
Tashon	10,606
Yahow	13,568
Ngawn	3,831
Whenoh	3,383
Kwangli	3,701
Baungshe	12,416
Khang	6,926
Yokwa	2,849
Shintaung ...	7,918
Laiyo	6,403
Yotun	8,949
Chins (unspecified)	5,902
Total ...	117,588

"The Nwites, common with the Northern Chins, believe that they are the descendants of the man and woman who fell from the clouds on to the earth at Chin Nwe. From Manipur records and from the lips of old tribesmen who know that formerly the Nwites owned large villages around the present posts of Tiddim. But now these village-sites are either deserted or occupied by Kanhows, and the Nwites have left Chinland and have settled down on the southern border of Manipur and the north-east corner of Lushailand.

"The Nwites have not totally disappeared from the Chin Hills. The large village of Wunkatee is inhabited chiefly by Nwites who, however, are subordinate to the Sokte Chief and who for all intents and purposes are Soktes. There are also Nwites at Hele village in the Nwengal country, as well as a few families amongst the Kanhows."

The Tashons or Shunklas occupy the central portion of the Chin Hills around Falam as centre. They may be divided into nine subdivisions, but of these only four, besides those included in the generic name for the group, come into the census records. They are the Yahow, the Ngawn, the Whenoh and Kwangli clans or families. The nature of the forces operating to produce cohesion among the members of this tribe can be gathered from the following extracts from the Chin Hills Gazetteer:—

"It is probable that the information contained in this book, concerning the past history of the Siyin and Sokte tribes, is practically all that will ever be known about them, but the present history of the Tashons is incomplete, and can doubtless be largely added to in the future. The latter, instead of helping us to learn their antecedents, have put every obstacle in our way, even to the extent of threatening heavy penalties to any one who should disclose their past history and their present dealings with their subordinates and tributaries. They fear that if we understand how heavily burthened the people are with taxation and how down-trodden and bullied they are, we may interfere in their behalf, even in the same manner as we removed the Tashon yoke from the necks of the Siyin and Sokte tribes and declared them independent.

"After the Shunklas had founded Falam they gradually brought all their neighbours, both relations and aliens, under their control. When we occupied Chinland we found the

Tashons numerically the most powerful tribe in the hills, though we believe that had our occupation been deferred for two or three years, the Yahows would have been broken from their bondage, and Rumklao and Minkin would have declared for Haka, in which case the Tashons would have suffered in prestige as well as in possessions. The Tashon tribesmen, unlike the Siyins and the Soktes, do not claim one common progenitor. They are a community composed of aliens, who have been collected under one family by conquest, or more correctly by strategy.

"The disarmament of the Tashons is but a matter of time, and probably of a very short time. Should the Political Officer find that all the tribesmen mean to fight, he can in all probability break the Tashon combination by promising the Yahows freedom from the Tashon yoke provided they remain neutral and surrender their arms after the Shunklas, Kwungli, Rumklao, and Minkin have been disarmed.

"The Whenoh community consists of Lushais who have been left behind in territory which is now a part of Chinland, but which formerly was inhabited by Lushais. They were driven west by the Chins across the Tyao and later still were forced further west and across the Tuipi river. When we first came here there were no Lushais living between the Tuipi and the Tyao, but now that raiding has been stopped the Lushais can and doubtless will avail themselves of the opportunity to return and rebuild in the now uninhabited tracts.

"From the foregoing pages it will be gathered that the Shunklas of Falam rule a heterogeneous community composed of various aliens, who far out-number the ruling tribe. The fact that they have acquired and maintained their rule over all these people speaks well for their power of administration. They hold their position, not so much through their prowess in the field as through the ingenuity which has enabled them to play off one sept against another and thus uphold their rule over the whole.

"This year has been the partial disarmament of the south, and now that the northern and southern tribes are disarmed, the Tashons recognize that their turn comes next and they are very awkwardly placed. If they surrender their guns, their power will be diminished and their prestige lowered; if, on the other hand, they fight, they are certain to be beaten, their fine capital will be at the mercy of the troops, and Government as a punishment may split up the present Tashon possessions into two or three independent chieftainships, Falam retaining the Shunklas, Kweshins, Torrs, etc., whilst the Yahows and the Whenohs would be independent of the Tashons and directly subordinate to the Assistant Political Officer at Falam. Exactly in the same way Klangklang and Yokwa are subordinate to the Assistant Political Officer at Haka, and the four clans of Siyins are each directly under the Assistant Political Officer at Tiddim."

The Baungshes or Lais occupy the southern portion of the Chin Hills jurisdiction extending over the southern border into the territory of the Pakôkku Hill Tracts. A number of clans claim to be included as Lais, but only the Hakas and Klangs or Klang-klangs are universally acknowledged to have a right to the title. The Klangs, Yokwas, Shintaungs, Laiyos and Yotuns are the only clans which have been recorded, the Hakas being entered under the designation of Baungshe. A few extracts from the Chin Hills Gazetteer are given from which it will be seen that tribal divisions are neither distinctive nor permanent:—

"The Chief of the Haka tribe claim supremacy over villages containing the aggregate nearly 3,000 houses, having an estimated population of 15,000 persons, 4,000 of whom are fit to bear arms. Their northern border runs in the longitude of Hairon; the Pao stream dividing them from the Tashons, whilst the Shimu Tlang, with its continuations, is their frontier with the Yahows. No natural features divide the Hakas, Klang-klangs, and Yahows, and most of the villages on these borders are influenced by two or even all three clans. In the south they are checked by the strong group of villages of which Naring is the chief and which has successfully kept their independence. Their territory on the west was curtailed by us when we made the Boinu the division between the Chin and South Lushai Hills.

"The Yokwa tribe contains 13 villages comprising rather more than 500 houses. Its population may be estimated at under 2,500 persons. The people claim to be Lais, and although this is disputed by the Hakas, the two tribes intermarry. The two dialects differ, yet intelligent people of both tribes readily understand each other. The Kenmwe family is the most influential but the hereditary principle is not well developed amongst the Yokwas, and on several occasions people, unconnected with this family, have led the tribe. Thus Lyen Son, who was Chief of Yokwa when we first came into the hills, had only the right of a ready knife and a tireless tongue to his possession. Now that he is dead Ratyo, who is not in the direct line of the descent of the Yokwa Chiefs, is perhaps the most influential of all the Yokwas.

"There are some 45 independent villages administered from Haka; these contain nearly 3,500 houses and have an estimated population of over 17,000 persons. They are inhabited by Yotuns, Shintangs, Lawtus, Yos and Lais, and have all more or less intermarried. The Yotuns are the most numerous, while the Lais have the most influence. The majority of the Yos live beyond our frontier towards Arakan, and Lunsoi, Ngapai and Soipi, which are influenced by the Haka Chiefs, are the only Yo villages, although the Lawtu villages of Nagrin, Kwahrang, Tangaw and Shurgnen are very closely allied to the Yos."

304. **Tribes of the Pakôkku Hill Tracts.**—Four tribes are recorded as being found within the limits of the Pakôkku Hill Tracts. The Chinboks are numerically the most important and are found in the northern portion of the territory. It is probable that the figures give an accurate representation of their numerical

strength. The Yindus recorded are found in the central portion and the Chinbons in the southern portion of this administered area. Their numbers are in all probability incomplete, as they extend beyond its boundaries into the Northern Arakan and Akyab Districts, where they are either outside census limits and therefore unrecorded, or are entered merely as Chins without any tribal specification. The few Baungshes returned are found close to the border of the Chin Hills jurisdiction. They would not probably be recognised as true Lais by the members of the central Haka and Klang tribes, and belong probably to the independent tribes which have come under the influence of the Lais without being incorporated into their more central clans.

Tribe.	Number of persons.
Chinbôk ...	18,179
Chinbon ...	1,600
Baungshe ...	1,924
Yindu ...	4,348
Total ...	26,051

305. Minor Chin Tribes in Akyab and Northern Arakan Districts.—The Kyaws or Chaws are an insignificant tribe settled on the banks of the Kaladan river in the Northern Arakan District, their total number amounting to 249 persons. According to tradition they are descendants of pagoda slaves settled in the locality by an Arakanese queen about three centuries ago. They are hardly distinguishable in dress and appearance from the Bengali peasantry of Chittagong. The number of the Anu tribe recorded is 479. This is no indication of the numerical strength of the tribe which extends beyond the limits of the census area into the unadministered territory of the Northern Arakan District. The headquarters of the M'hangs, who have entered the records to the number of 23, is outside the administered boundaries. The tribe of the Thets or Saks has practically disappeared, numbering only 79 in the census records. It is extremely doubtful if there is any connection between this remnant and the Saks who were at one time one of the most important of the Burmese tribes in the Irrawaddy valley. In all probability they are an Arakanese-Chin Hybrid. They are only found in the Akyab District.

306. Chin Tribes of the Upper Chindwin District.—Only two distinct Chin tribes, the Hawchits and the Nagas have been recorded in the Upper Chindwin District, the great majority coming within census limits having been entered merely as Chins unspecified. The Naga country is excluded from our administration, although there are large numbers within the political frontier living in the unadministered territory. Their inclusion in the census returns indicates a tendency to migrate towards the regularly administered portion of the Chindwin District.

307. The Taungthas.—The extremely large increase in the numbers of Taungthas recorded at the census of 1911 as compared with those recorded in 1901 is due to a difference in the exact meaning of the term. In the Pakôkku District the Taungthas are a distinct Chin tribe who have adopted Buddhism and intermarried to a certain extent with the Burmese. In the Akyab District, they are purely Chin, and, indeed, the term is sometimes rather loosely attributed to certain Chin tribes simply because they dwell entirely in the hills. To what extent the Taungthas of the Pakôkku and the Akyab Districts are allied has never been determined. In the census of 1901 the Taungthas of the Akyab District were recorded as Chins unspecified. In the current census they have been distinguished in the records from the surrounding Chins. Until the degree of relationship, or separation, between the two sections of the Taungthas is determined it is difficult to make a correct classification. The relative numbers of the two branches are given in the marginal statement.

Taungthas.	1911.
Pakkôku ...	6,945
Akyab ...	10,517
Total ...	17,462

308. The Daingnets.—The Daingnets present an ethnological problem still far from solution. Mr. Lowis considers that so far as can be ascertained they are Tibeto-Burmans with a strain of Chittagonian blood and speaking Bengali. In the revised Akyab Gazetteer dated 1905 the Daingnets are said to be in feature somewhat like to Ghoorkas of Nepal, and differ from the hill tribes of Arakan. They are described as dressing in white and wearing their hair at the back of the head and as not tattooing their bodies. It is also recorded that they do not intermarry with other races that they speak a corrupted Bengali, and that they are descendants of Musalman slaves of the king of Arakan.

Daingnets.	
1911 ...	954
1901 ...	3,412
Decrease ...	2,458

The following description obtained by Mr. Page, Subdivisional Officer of Buthidaung, from enquiries among the Daingnets themselves may be accepted as their own traditional account of their origin :—

"The Daingnets are a quiet agricultural folk living in out-of-the-way parts of the country. They either work paddy land where they have cleared the jungle round the foot of the hills or practise taungya cultivation. They seem to have been pushed into the background by the Chittagonians who are rapidly spreading everywhere.

"The Daingnets say that they originally lived near the Kantha chaung in the Chittagong District. There they had their own Rajahs of whom the names of the last three are given as Chweman, Zampasa and Darampasa. In the time of Darampasa the Daingnets moved over into Arakan bringing their wives and children with them. The date of this migration is put at something over 50 years ago and the reason for it seems to have been mainly economic, paddy being so much cheaper in Arakan than in Chittagong at the time.

"There are said to be eight different kinds or tribes of Daingnets, the language of some differing as much as Burmese and Arakanese. The Daingnets living in Arakan have no written language of their own. Such as are literate employ the Burmese language. They say that the Daingnets still living in Chittagong district have a written language of their own but it is unknown to those living in Arakan.

"From childhood the Daingnets of Arakan pick up both Chittagonian and Arakanese so that a large number of words from both these languages have become incorporated in their language. Of these incorporated words there seems to be a larger proportion of Chittagonian and this no doubt has led to the belief that the Daingnet language is merely a corrupt form of Chittagonian."

The marked decrease in the number of the persons recorded as Daingnets indicates that they are gradually ceasing to exist as a separate tribe and are being absorbed into the general Chin community exactly as is the case with the Khamis of the Akyab District.

309. The Khamis.—The Khamis are a Chin tribe now settled on the Kaladan river in the Akyab and Northern Arakan Districts. Previously they were located in the hills of the unadministered territory but in the latter part of the 19th century they moved westwards and drove the Mros from the valley of the Kaladan. They now share the valley and its bordering hills with the Chaungthas, an Arakanese tribe which has separated from the main branch. The numbers of the tribe show a large decrease amounting to 8,565 since the census of 1901. This is largely due to the fact that in the Akyab district a large number of its members previously recorded under their tribal designation have been recorded simply as Chins. The marginal statement indicates the extent to which this change has affected the figures, the gain in the one category balancing the loss in the other. It is an illustration of the difficulties of a corre ct classification of the Chin tribes to note, that in Volume IV of the Series of the Ethnographical Survey of Burma although Mr. Lowis deals separately with the Khamis and the Mros on the ground that they have for the past forty years formed the subject of independent observation, yet their ethnographical status is by no means yet determined. Whether the Mros were originally Chin or Arakanese, or Burmese is a much discussed question, and as regards the Khamis Mr. Lowis in 1910 considered that it still remains to be decided whether they are more closely connected with the Yindus, or the Chins of the Chin Hills proper, or whether they can claim a joint ancestry with the Lushais. All that can be said of them is that like the remaining Chins they came from the north and established themselves on the western edge of the Chin country in the basin of the Kaladan, and that the most southern branches of the tribe in the Akyab District are losing their identify and becoming assimilated with the southern or tame Chins of the regular districts of the province.

Khamis.	
1911 ...	16,372
1901 ...	24,937
Decrease ...	8,565

Akyab District.			
——	1911.	1901.	Increase or Decrease.
Chin ...	19,081	9,415	+ 9,666
Khami ...	2,727	11,595	—8,868

310. The Kachins.—In a bibliographical summary to a monograph on the Kachins published by Dr. Wehrli, a list of 144 works of reference is given. It is not intended to supplement this mass of information by any description of the Kachins, their tribes, divisions and customs. The Census Reports for 1891 and 1901, in themselves afford sufficient information for a study of the figures now presented. Prior to the census, local officers were consulted as to the possibility

of obtaining separate figures for the five tribes, the Marips, the Latawngs, the Lapais, the Nkhums and the Marans. But it was decided that in view of the small number of literate enumerators available any such attempt must necessarily fail. Consequently the entry in the column for "Caste, Tribe or Race" was limited in the majority of instances to the simple designation "Kachin." Some enumerators attempted a more elaborate division, but the numbers of such differentiated entries were so small that they are of no value in estimating the total number of members of each tribe. The increase of 97,963 persons on an original total of 64,405 is not due to the natural increase of the Kachins dwelling within the limits of the province. Several other factors contribute to this result. In the Northern Shan States, the Kachin Districts of North Hsenwi have now been enumerated for the first time and the racial classification of its population rendered possible. The increase of 67,640 persons within this territory is therefore to be attributed mainly to this extension of regular census limits. Similarly in Myitkyina District, areas previously estimated, and therefore not subject to racial classification, have been brought within the regular census area, and a large portion of the increase of 20,079 persons in this district must be attributed to this cause. But apart from the extension of census limits northwards there is a steady pressure of Kachins in a south-easterly direction from beyond the administrative border and from Chinese territory into the administered portion of the province. The Kachin invasion which entered Burma rather to the west of the Irrawaddy is now diverging eastwards. Its line of least resistance has skirted the boundary of the regularly administered districts in an easterly direction. Crossing from the valleys of the Chindwin and the Malikha (the western tributary of the Irrawaddy) it entered the valley of the Nmai Hka (the eastern branch of the Irrawaddy) and there intercepted the southern migration of the Marus, the Lashis and Tsis. Having surrounded these tribes and rendered their ultimate absorption inevitable, it still proceeded in a south-easterly direction, driving the Palaungs from the hills to the east of the Myitkyina and Bhamo districts and forcing them southwards into the eastern portions of the Ruby Mines District and into the Northern Shan States. Although the Palaungs have made a determined stand against the Kachin invasion, the southern movement of the Kachin tribes continues. But other races than the Palaungs have begun to feel the pressure of the invasion. Each year they spread a little further. They have established settlements on the fringe of the Wa country and threaten the Shans with a wholesale invasion which may cause serious administrative problems in future. The Shans are becoming aware of the danger that may ensue from Kachin intrusion and are taking steps to prevent any Kachins from entering their territory. This has resulted in a still more easterly deflection of the Kachin movement, and at present it is progressing principally within Chinese territory skirting along the northern boundary of the Northern Shan States.

Kachin.	1911.	1901.	Increase or Decrease.
Myitkyina ...	33,034	12,955	+ 20,079
Northern Shan States.	73,578	5,938	+ 67,640
Rest of Burma ...	55,756	45,512	+ 10,244
Total ...	162,368	64,405	97,963

Although the present census area, and the possibility of racial classification, have been extended, the record of the number of Kachins is still far from complete. Any estimate of the numbers beyond the administrative boundary is a mere guess, but it is probable that they exceed those who have been brought within the scope of the enumeration. It is a matter of some difficulty to gauge exactly the extent to which each of the four contributory factors has contributed to their large increase of numbers, but it is possible to assign them to their correct order of importance. The first place must be assigned to the extension of the area of racial classification and the second to the southern and south-easterly migration of the Kachins which is bringing them in increasing numbers into the administered area in which their enumeration is possible. The natural increase of the population by the ordinary excess of births over deaths occupies the third place and the fourth but by no means insignificant factor in the increase is the slow and gradual absorption of the other races with whom the Kachins come into contact, the three tribes, the Marus, the Lashis and the Tsis showing the highest degree of assimilation. Hitherto there has been no question of an ethnical conflict between the Kachins and the Burmese. The Kachins, being a hill race, have avoided the plains and valleys where the Burmese flourish. But apart from the three small tribes

mentioned above, the Chins, the Palaungs, the Was, and the Shans have all felt the pressure of their onward movement. The gradual extension of the area under administrative control renders peaceful penetration the only possible method of southward extension. To what extent it will succeed and what will be the effect of the movement on the Kachins themselves, and on the races with whom they come into contact cannot at present even be estimated. The following quotation from the report of 1901 is still pertinent :—

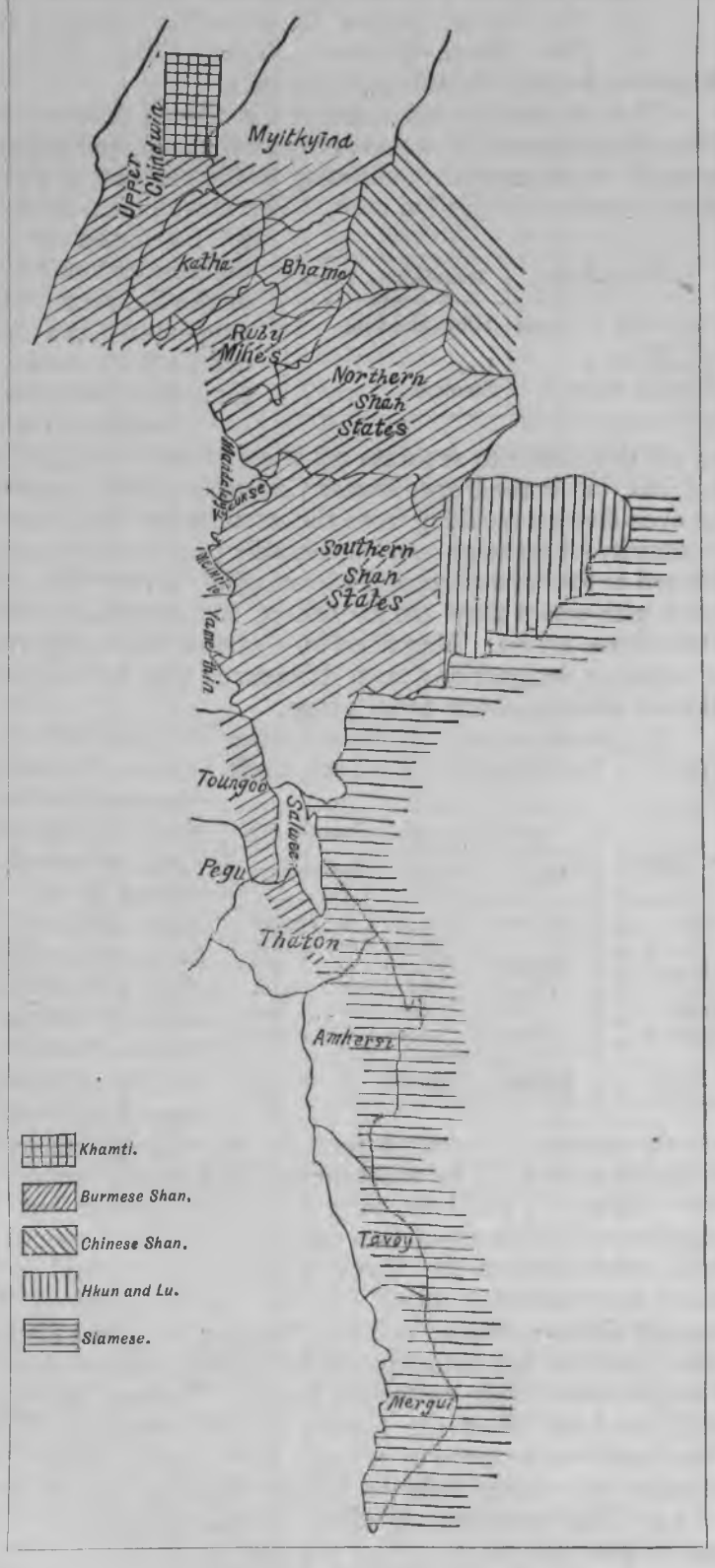
"Whatever the ultimate trend of their wanderings may be the Kachins are now with us, on this side of, as well as upon and beyond, our marches, and will long be a force to be reckoned with by our frontier administrators, for they are a pugnacious, vindictive, stiff-necked generation, and, when beyond our administrative border, are still apt to be turbulent and unreasonable."

Mr. Thornton in describing the census operations in the Northern Shan States reports :—

"The steady pressure of Kachins southwards referred to in the last census report has continued. Kachin settlers are discouraged by the Sawbwa of South Hsenwi, who is more particularly affected by the movement, and it is hoped that the tide of immigration has been turned eastwards through the Wa Country and into Mong Lem in China."

A greater proportion of their numbers is now within our borders. They are under closer control, but their masterful temperament and their racial virility are bound to assert themselves at the expense of the weaker races which happen to lie in their path.

SKETCH MAP SHEWING DISTRIBUTION OF THE SHAN RACES.



311. The Shans or Tais.—The Tai race is so widely and so peculiarly distributed that any logical divisions into its constituent parts is almost impossible. It is the most widely spread and the most numerous of all the races in the Indo-Chinese peninsular. Linguistically the race is divided into two great divisions, the line of cleavage roughly coinciding with the Salween river. Although this boundary runs due north and south, the two linguistic groups have been designated the northern and southern rather than the eastern and western groups.

This is due to the obliquity of the general line of distribution of the race, extending as it does in a direction north-west and south-east from Assam to Siam. The group to the west of the Salween has therefore a far more northern location than the eastern group. The migrations of the Tai races have proceeded from their original home in south-western China. The pressure of the Chinese from the north-east and of the Burmese from the south have forced the Shans to assume their present oblique, elongated, and discontinuous distribution. Attempts have been made to effect a geographical classification as follows :—

(i) *The South Eastern Shans.*—The Siamese, the Lao, the Lu and the Hkun.
(ii) *The South Western Shans.*—The Shans of the Southern Shans States.
(iii) *The North Eastern Shans.*—The Shans of Western China.
(iv) *The North-Western Shans.*—The Shans of Upper Burma, the Khamtis and the Tai tribes of Assam.

This division is unsatisfactory in that it leaves the Shans of the Northern Shan States as an indeterminate central group, and moreover it is scarcely possible to apply a geographical quartering to the attenuated and discontinuous distribution of the members of the Tai race. The most logical method of classification appears to be based on the undoubted linguistic differences found in the west and to the east of the Salween. On this basis the scheme suggested in the marginal statement, though not perfect, seems less open to objection than any alternative.

Cis-Salween Tribes.	Trans-Salween Tribes.
Tai Tribes of Assam Khamti.	Hkun and Lu.
Chinese Shan ...	Lao.
Burmese Shan ...	Siamese.

It would be easily possible by recognising all the claims to separate tribal existence to multiply indefinitely these six main divisions, but in the Upper Burma Gazetteer a much needed protest is raised against the over-division resulting from the assumption that every local name given to a community by its neighbours necessarily possesses an ethnical significance. Widely diffused as the Shans are, and intermingling as they do so freely with the numerous races with whom they are in contact, numerous minor differences in customs and dialect have arisen. Magnified by a narrow and local perspective, and distinguished by separate designations, such differences tend to conceal rather than reveal the ethnical identity of any tribal group.

Of the seven main divisions of the Tai race only three appear in the census records. No distinction has been made between Burmese and Chinese Shans by the enumerators, and they are both entered under the designation Shan. The members of one of the discontinuous Khamti States in the Upper Chindwin District were similarly entered as Shans. Hkun and Lu, in reality two branches of one tribe, were separately recorded. An insignificant number of the Daye, a Shan-Chinese hybrid community were entered, but the unsatisfactory and indeterminate term Tai-loi has fortunately disappeared from the records. In one respect the warning against over-classification has been carried to excess. The substitution of the generic term "Shan" for the particular term "Siamese" has been adopted in every district but Mergui, where the large indigenous Siamese population naturally favoured a special record of their existence. But in other districts the Siamese have been entered as Shans. The vernacular (Shan and Siamese) terms for the two designations "Tai" and "Thai" are scarcely distinguishable, and the Siamese are generally known to the Burmese as Shans, and this has naturally led to identical entries where neither of the two races is indigenous. This confusion, though affecting the figures for the divisions in detail, does not affect the figures for the members of the Tai race as a whole. These show an increase of 102,992 since 1901. Apart from natural increase, the extension of census limits to include Kokang and West Manglun accounts for 16,274. The extension of racial classification to the Kachin Districts of North Hsenwi does not greatly affect the number of Shans returned ; neither is migration an important factor. Allowing for disturbing influences the natural increase is somewhere about nine per cent. for the decade. This is a smaller percentage than for the other two main races of the province for which a rate of increase is calculable. The Burmese and Karen groups, with natural increases of twelve and a half and fifteen per cent. respectively, are proving better able than the Shans to

Tribe.	Numerical Strength.		Increase (+) or Decrease(—).
	1911.	1901.	
Shan ...	926,879	787,087	+ 139,792
Tai-Loi ...	..	15,660	— 15,660
Hkun ...	42,366	41,470	+ 896
Lu ...	17,331	16,227	+ 1,104
Daye ...	201	1,094	— 893
Siamese ...	9,643	31,890	— 22,247
Total ...	996,420	893,428	+ 102,992

withstand contact with other races in an era of settled Government. There is a tendency, where the Shans are sparsely distributed and come into contact with the Kachins, the Burmans and the Chinese, for the Shans to gradually lose their language and racial characteristics. Where the Shans are concentrated they show a tendency to absorb the members of minor races such as the Hpons, the Maingthas and the Was. As to the variations of the members of the constituent divisions of the Shans, the divisions in themselves are of such doubtful import, the distinctive characteristics of each division are so vague, and the changes in the meaning of the divisional designations since 1901 are such, that there would be but little advantage to be obtained from a comparison of figures representing different facts at their respective dates of record.

312. The Tai Loi.—The Tai Loi or Hill Shans have disappeared from the census records. This term is one of the wide misleading terms which serve to conceal true ethnical divisions, and to facilitate the nominal transfer of tribes from one race to another. Originally the term was used to denote the members of the Wa tribe who had embraced Buddhism. Then its meaning extended to embrace any Buddhistic hill tribe. The change of religion was usually accompanied by a change in manners, customs and speech. All such tribes began to talk Shan and to claim to be Shans. The term has gradually been extended till it may mean any hill tribe either of Shan origin, or whose members claim to be Shans. The name originally imposed by the Shans to denote a definitely limited class, has been used to bridge over many ethnical divisions. A member of the Tai Loi if asked to state his race or tribe will suppress the "Loi" and simply reply that he is a Shan. The term has consequently not been used in the current census records, the members being returned under their more definite designations of "Shan" or "Wa" according to their real racial origin.

313. Tribes of the Sinitic Group.—The total figures for the tribes of the Karen or Sinitic racial group are for the first time complete in the records of the current census. Hitherto the exclusion of the Karenni Subdivision of the Southern Shan States from the possibility of racial classification has rendered the figures but a partial presentation of the numbers of the Karen race. The total of 1,102,695 persons can be assumed to be as accurate as the conditions of census enumeration in Burma will allow. The whole, with the exception of the small number of 5,717 members of the Brè tribe who were the subject of an estimate, have been directly enumerated. The increase for the decade is 199,334, but of this amount, 63,628 is due to the inclusion of the records for Karenni Subdivision. Without the extra area, the increase would have been 135,706, or approximately 15 per cent., a rate of increase which coincides closely with that for the population of Burma proper.

Tribe.	Numerical Strength.		Increase (+) or Decrease (−).
	1911.	1901.	
Karen (unspecified, Sgau, or Pwo).	872,825	717,859	+ 154,966
Taungthu ..	183,054	168,301	+ 14,753
Karenni ...	19,008	4,936	+ 14,072
Karennet ...	3,721	...	+ 3,721
Karenbyu ...	790	...	+ 790
Zayein ...	4,981	4,440	+ 541
Sinsin ...	533	...	+ 533
Bré ...	6,911	...	+ 6,911
Manô ...	1,445	...	+ 1,445
Yinbaw ..	911	...	+ 911
Padaung ...	8,516	7,825	+ 691
Total ...	1,102,695	903,361	+ 199,334

The Karens, of all the races to be found in the province, have intermingled least of all with the members of other races. It has already been recounted in this chapter how quietly and unobtrusively the progenitors of the Karens migrated from their original home in Western China to their headquarters in the Karenni Subdivision of the Southern Shan States. It has also been related in Chapter VII how the phenomenon of endogamy is to be found among the Karen tribes to a degree not known among any of the remaining races of the province. As a result of this ethnical isolation the Karens stand out as a highly individualised racial group. Linguistically, the Karens belong to the Siamese-Chinese sub-family, but the connection between the Shan and the Karen languages is so remote that the cleavage between the two races must have taken place in pre-migration times. There is nothing in the literature or legends or customs of either race to suggest any ethnical connection between them. A striking contrast exists between the mass of information available concerning the Karens as they exist at the present time and the paucity of anything approaching certainty as to their history. They have left no

impression whatever on the history of other races which would serve to check or substantiate their rather nebulous legends as to their origin. In the midst of communities who have readily amalgamated with whatever tribes and races happened to be in their immediate vicinity, the Karens alone have remained isolated and self-contained. The ready reception they have accorded to the teachings of Christianity has tended to strengthen their individuality as a racial group, and to widen the differences existing between them and the remaining indigenous races of the provinces. While the Talaings, at one time supreme over the whole of the deltaic portion of Burma, are being absorbed by the Burmese, there is no suggestion that any such absorption, or even that any amalgamation, between the Burmese and the Karen races is within the range of possibility. So far as past history and present tendencies indicate, the Karens, however much they may suppress and abolish their internal tribal divisions, will remain a distinct and progressive racial group.

314. The Sgau and Pwo Karens.—The Karens of the Deltaic plains are divided into two main divisions, the Sgau and the Pwo. At one time the division was even more complete than the existence of separate languages would suggest, intermarriage between the two branches being regarded with great disfavour. There are, however, signs that the distinctions are gradually becoming less marked. The Sgau dialect is tending to drive out the Pwo, and the obstacles to intermarriage are much less formidable than formerly. One sure indication of the gradual decay of the distinction is the comparatively few entries of the distinctive names in the census schedules. The increase of 154,966 for the decade amounts to 21 per cent. on the figures for 1901 and shows a considerably more rapid rate of increase than that for the population of the province as a whole. Part of the increase may, however, be due to the entry of some of the Taungthus as Karens, the rate of increase of the former not being equal to that for the province generally.

Sgau and Pwo Karens.	
1911	872,825
1901	717,859
Increase ..	154,966

315. The Taungthus.—The Taungthus, a branch of the Pwo Karens, are to be found principally in the Thatôn District and in the south-western portion of Myelat of the Southern Shan States. They show an increase of 14,753 or slightly less than nine per cent. on the figures for 1901. This small rate of increase probably indicates a tendency towards the removal of internal tribal barriers among the Karens, and some Taungthus were undoubtedly entered simply as Karens in the census schedules. It is highly improbable that the Sgau and Pwo Karens should have an increase of 21 per cent. for the decade while such a closely allied tribe as the Taungthus should increase by less than nine per cent. The Taungthus are fully described in the Upper Burma Gazetteer but in the account therein given, sufficient stress is not laid on the facts that the Taungthus are essentially of Karen race, and that they are of a distinctly different ethnical stock from the Taungyos with whom they are jointly described.

Taungthus.	
1911	183,054
1901	168,301
Increase ...	14,753

316. Bghai Karens.—In the Karenni Subdivision and in the adjoining Shan States are a group of Karen Tribes known as the Bghai. It is somewhere in this vicinity that the Karens in their original migrations must have entered Burma. This southern extremity of the Southern Shan States was the locality adopted by the Karens as their headquarters. The Sgau, the Pwo and the Taungthu have departed and occupied the country to the north, west and south of this centre, modifying their primitive customs by their change of environment. The tribes that remained have retained their original customs to a much greater extent than those who have gone further afield. Among these there is a strong tendency to endogamy to which attention has already been drawn. Partly owing to this custom, and partly to the diversified nature of the country which they occupy, the Bghai Karens are split into a number of small tribes, nine of which appear in the census returns. A full account of these tribes and their customs is to be found in the Upper Burma Gazetteer.

Bghai Karens.	
Tribe.	Numbers.
Karenni ...	19,608
Karennet ...	3,721
Karenbyu ...	790
Zayein ...	4,981
Sinsin ...	533
Brè ...	6,911
Manō ...	1,445
Yinbaw ...	911
Padaung ...	8,516
Total ...	46,816

317. The Talaings.—The brief synopsis relating the probable conditions under which the Talaing race was evolved, given in the paragraphs relating to the Mon-Khmer invasion and the early Munda influences operating at that period, seems an inadequate preparation for a consideration of the remnants of the race as represented in the census returns. To supply the missing links of the chain would be to write the history of Burma for nearly twenty centuries. Reference must be made to standard linguistic and historic treatises and to previous census reports for all intermediate particulars. It is impossible here to describe how the Mon-Khmer races once occupied practically the whole of the valley of the Irrawaddy ; how they were separated and isolated by the Burmese and Shan invasions ; how one branch was forced towards the coast and achieved cohesion as the Talaing race as the result of external pressure ; how for centuries warfare was waged for supremacy between the Burmese, the Shans and the Talaings ; how the latter at the middle of the eighteenth century were supreme from Mandalay to Martaban ; and how in the interval they have been reduced to the small and vanishing remnant now presented in the census records. The last phase can be briefly sketched. With the conquest of Pegu by Alaungpaya in 1757 the Talaing language was discouraged by the Burmese. But it was not till the retirement of the British from Pegu in 1826 that its use was absolutely proscribed. It would have become extinct but for the migration of Talaings into Tenasserim, where under British rule it managed to exist until 1852, when the permanent occupation of Pegu by the British removed the ban. But the spirit of the race had been crushed in the interval and for a long time it scarcely resisted absorption by the Burmese.

Talaings.	
1911	320,629
1901	321,898
Decrease ...	1,269

There now appears to be a slackening in the rate of absorption of the Talaings by the Burmese. There is a slight decrease of 1,269 in the number of Talaings in the ten years elapsing since 1901. Also the number of Talaings using their own form of speech is but a fraction (56 per cent.) of the whole. Yet the number of Talaing speakers has risen materially and indicates that there may be unsuspected stores of vitality in the race which may resist assimilation with the Burmese for many years to come.

Numbers speaking Talaing language.	
1911	179,443
1901	154,483
Increase ...	24,960

Considerable discussion has been devoted to the derivation of the word Talaing, a name not recognised by the Talaings or Mons themselves. The name cannot be traced back beyond the eighteenth century and the suggestion that the name is derived from Telingana, Telinga or Telugu seems to ignore the immense period of time which must have elapsed between the absorption of the Munda races of Burma by the Mons and first use of the name. Mr. Furnival, in his Gazetteer of the Hanthawaddy District, in a discussion on the subject is inclined to support Dr. Forchhammer's suggestion that the word is a compound of the Burmese numeral "one" and a Talaing word used as a numerative.

318. The Palaung-Wa Group of Tribes.—Many factors have contributed to the remarkable increase in the figures for this group of tribes. Among them may be mentioned, the extension of census limits to include Kokang and West Manglun, the extension of racial classification to the Kachin Districts of North Hsenwi, the southern movement of the Palaungs pressed from the more northern hill ranges by the advance of the Kachins, improved administrative control over the area occupied by these tribes, and consequently greater facilities for more accurate enumeration, the abandonment of the indeterminate designation Tai Loi and the entry of its Wa members as Was, and finally the natural increase of births over deaths. The first of these factors can be measured accurately, the marginal statement

Tribe.	Numerical Strength.		Increase (+) or Decrease (−).
	1911.	1901.	
Palaung ...	144,139	56,866	+ 87,273
Pale ...	68	..	+ 68
Yin (Riang) ...	7,928	3,094	+ 4,834
Wa ...	14,674	5,964	+ 8,710
En (In) ...	3,455	931	+ 2,524
Pyin ...	275	1,096	− 821
Lamet ...	231	141	+ 90
Danaw ...	1,724	635	+ 1,089
Total ...	172,494	68,727	+ 103,767

giving the numbers of these tribes found in the areas of Kokang and West Manglun. The other factors cannot be accurately gauged, but undoubtedly the one having the greatest numerical effect is the steady pressure of Kachins driving the tribes of the group southwards into administered territory. The eight tribes of the group fall into three divisions; the first containing the Palaungs, Pales and Yins or Riangs; the second containing the Was, Ens or Ins, Pyins and Lamets; while the Danaws, a Shan-Palaung hybrid tribe form the third. This group of tribes is one of the remnants of an extensive settlement of Mon-Khmer races over the greater portion of the area now comprising Burma and the Shan States. The Burmese and Shan invasions isolated it from the main branch, which was forced southwards to the sea and ultimately formed the Talaing race. The evolution of the Palaung-Wa group differs remarkably from that of the Talaings. The latter came into contact with, and absorbed, members of comparatively civilised races. Moreover they developed in a spacious plain which facilitated the cohesion of all the members into one unified race. The Palaung-Wa group on the contrary were cut off from contact with external civilising influences. They were isolated in a mountainous country which encourged the formation of small tribal groups and ensured the continuance of primitive tribal customs. But for linguistic affinities it would not be possible to trace any connection between these obscure tribes, and the Talaings who have made such a deep mark on Burmese history.

Palaung-Wa tribes in extra census area.	
Tribe.	Strength.
Palaung ...	5,827
Wa ...	1,200
Yin (Riang) ...	108
Total ..	7,135

SKETCH MAP SHOWING DISTRIBUTION OF THE PALAUNG-WA TRIBES.

319. The Palaungs, Pales and Riangs.—The Palaungs at the present time afford an illustration of the forces which have been working for centuries to effect the isolation of Wa-Palaung group of tribes. The process of hemming in, commenced by the Burmese and the Shans, is now being rigorously continued by the Kachins. The remarkable increase in their numbers, though due partly to other causes already mentioned, must be attributed in the main to the retreat southwards of the Palaungs in the face of the Kachin advance. This has been referred to by numerous officers in the past, and Mr. Thornton, the Superintendent of the Northern Shan States, reports that the steady pressure of the Kachins southwards has continued. The Sawbwa of South Hsenwi has been discouraging the movement of Kachins into his state, and it is hoped that the tide of Kachin immigration has been turned still further eastwards into the Wa country and into China. But although the Kachin invasion may be turned aside the populations displaced by the Kachins tend to take refuge within the British

Palaungs.	
1911	144,139
1901	56,866
Increase ...	87,273

border. The Palaungs are peaceful, industrious and unaggressive, quite able to hold their own individually in matters of business with the Kachins. But collectively, they retire before the Kachin advance with scarcely any show of opposition. The increase in numbers indicates more than anything else a concentration of the Palaungs from territories beyond British control into the Möng Mit State of the Ruby Mines District and the Northern Shan States generally. Mr. Lowis considers that it is possible that the Riangs or Yins are nothing more nor less than a southern branch of the Palaungs. They speak a language resembling Palaung and like the Palaungs they are Buddhists. The numbers recorded in the census schedules afford no indication whatever of the strength of the Pales. The distinction between the Palaungs and the Pales is more or less arbitrary, the former designation being retained to the central and longer established branches of the tribe, the latter being given to its western branches. The attitude of superiority assumed by the Palaungs may account for the insignificant number of Pales recorded.

The literature concerning the Palaungs and their divisions and customs is rapidly growing. In addition to the detailed description in the Upper Burma Gazetteer, the first issue of the series of the Ethnographical Survey of Burma was a note by Mr. Lowis on the Palaungs of Hsipaw and Tawngpeng. It is hoped to supplement this by an appendix to the present report in the form of a monograph on the Palaungs of the Kodaung, by Mr. A. A. Cameron, Assistant Superintendent, Kodaung Hill Tracts.

320. **The Wa Tribes.**—The Ens or Ins, the Pyins and the Lamets are but subdivisions of the Was, slight differences of dialect and customs having been developed by the isolation resulting from residence in a mountainous country. Practically nothing has been added to the knowledge of these tribes since the extremely full account of them contained in the Upper Burma Gazetteer. The large increase in the numbers of the Was is not so much due to the inclusion of fresh areas, as to the abandonment of the indeterminate designation of "Tai Loi." According to its original meaning it comprised only people of Wa origin who had embraced Buddhism. But it is now loosely used to denote any Buddhistic hill tribe, or even any tribe of hill Shans. It is an example of the ill-defined ethnical boundary lines which are so common among all races in Burma. Enumerating officers decided not to use the term, with great advantage to the accuracy of the racial classification, but the change makes any comparison with previous figures a matter of conjecture. The diminution in the figures for the Pyins indicates a removal of tribal barriers and absorption by the main tribe. The Lamets are immigrants from Siamese or French territory.

Was.	
1911 ...	14,674
1901 ...	5,964
Increase ...	8,710

321. **The Danaws.**—The most probable conjecture as to the origin of the Danaws, is that they are a Shan-Palaung hybrid. Their language so far as it has been examined shows closer affinities to the Mon-Khmer forms of speech than to any other tongue. In appearance and customs there is nothing to distinguish them from the Shans. They inhabit the north-western portion of the Southern Shan States. Though in close proximity to the Danus, and though like the latter they are of hybrid race, the two are quite distinct. They have been frequently threatened with extinction but their numbers have risen from 635 to 1,724 in the past ten years. In common with all hybrid races there are indefinite possibilities of recruitment from the original contributary races.

322. **The Miaos, and Yaos.**—The small numbers of these tribes found in Burma have wandered far from their original headquarters. The Miao, or Miaotzu or M'hang, came from the Kueichou province of China. They have but recently arrived three or four generations ago into Yunnan and Ssu-ch'uan, where they exist as small communities in the midst of a population of other races. A few villages are to be found in the Burmese Shan States and they appear for the first time in the Burmese census records. The following is from the description of the tribes, by Major Davies :—

Tribe.	Numerical strength.
Miao ...	646
Yao ...	512

"The headquarters of the Yao tribe is in the province of Kuang-hsi. Like the Miaos they are comparatively recent arrivals in Yunnan, and but a few have crossed the border into

the state of Kengtung. The Upper Burma Gazetteer in the course of a lengthy description of the Yao tribes puts forward the suggestion that they are an off shoot or a half-breed race of the Miao."

323. **The Salons or Mawken.**—The following extracts from the "Introduction to the Mawken Language by the Rev. W. G. White," will serve to supplement the information concerning the Salons or Mawken of the Mergui archipelago which has already been published :—

Salons or Mawken.	
1911 ...	1,984
1901 ...	1,325
Increase ...	659

"It is rather curious that no one mentions the fact that the people call themselves Mawken; this name has a reference to their past history; and the very structure of their boats and the name of the upper portion of the freeboard witness to the name and perpetuate the history of the Mawken. If the silence has been due to ignorance, it points to the fact that the Mawken have been studied from outside: through field-glasses and telephones, one might say. The name Mawken is made up of the two words, L'maw, to drown; and o'ken' salt-water, or 'the sea.' It means 'Drowned in the sea.' It is explained that, generations ago, when they were forced to take to living in boats, they did not make their craft high enough at the sides. When the south-west monsoon came on, boats were frequently swamped; and numbers of the people perished. Learning by sad experience, they added to the height of the freeboard. This additional piece is called Maw (from L'maw). It is the drowning part. If it were not there, the people would be drowned, as of yore. This extra height of freeboard is marked off by a bamboo rib, which runs from stern to stern, about nine inches below the top of the gunwale.

"Selone, Selong, Selung, Silong, Salon—all are various spellings of the name by which the Burmese and Talaings know them. This is the name by which the European hears of them. The Mawken call the Burmese, T'now, and the Malays, Batuk. But we do not go to the Mawken for their names. We prefer to call the Burmese by an anglicised form of that which they call themselves. The Mawken, likewise, have a right to be known by their own name, especially as it is so significant.

"The Mawken assert that they began to spread through the islands from the north. They say from Doong, which is Ephinstone—a large island in the north-west of the Mergui Archipelago. Further, they say that they were forcibly spread by the Malays, who used to carry them off and enslave them. Dr. Anderson informs us that in an account of the Mawken, published in 1828, by Walter Hamilton, the fact that the 'Chalomes' (Selones) were made slaves by the Malays is mentioned. And, in his own book, Dr. Anderson alludes to the fear of slavery by Selungs whom he met at the Yimiki Settlements. This was in 1881-82. We have abundant records of Malay piracy in the past. And I have personal knowledge of the fact that acts of piracy are still committed: for I take it that if a Malay boat holds up a Mawken boat and robs it of its provisions (rice) and of mats and things which the Mawken have made for sale, such action constitutes 'Piracy'. Major Broadfoot, a former Deputy Commissioner in Mergui, in the forties of the last century, was cognisant of such acts of piracy against the Mawken. Such occurrences are common throughout the Archipelago to-day if one may take the complaints of Mawken from Mergui to Victoria Point, as true; and if one may judge by that which one has witnessed for oneself.

"Owing to the Malay captures and removals, the Mawken were located and found new centres about Bokpyin, Victoria Point, Lawta and Tongka. This is the Mawken account of the past, obtained directly from them."

324. **Chinese.**—It is impossible to conceive a more heterogeneous mixture than the members of the Chinese race to be found in Burma. The Chinese arrive in Rangoon by two routes, by sea from the Chinese coast ports, from Singapore and the Federated Malay States, and overland from Yunnan and Ssu-ch'uan. Those arriving by the former route exhibit all the signs of racial intermixture to be expected from residents gathered from a lengthy and racially variegated line of coast. As for those arriving overland, the following opinion of Major Davies will indicate their degree of ethnical heterogeneity before they start on their migration to Burma.

	Males.	Females.	Total.
1911 ...	89,345	33,489	122,834
1901 ...	47,179	15,307	62,486
Increase ...	42,166	18,182	60,348

"This process of absorption of other races by the Chinese has undoubtedly been going on all over China ever since the Chinese entered the country. Whatever the pure Chinamen may have been five thousand years ago, it seems historically certain that the Chinaman of the present day has grown up out of the gradual welding into one empire of Tartar tribes from the north, and of Mon-Khmer, Shan, and possibly to some extent Tibeto-Burman races who were originally in occupation of much of the country which has grown into China.

"The great diversity of feature and of stature to be found among Chinamen from different parts of the empire is no doubt to be accounted for by original difference of race. At the present day everyone who speaks Chinese in his own house must be accepted as a

Chinaman. The Chinese of Yunnan are not therefore necessarily less pure Chinamen than their compatriots of other provinces, the difference being only that their absorption into the Chinese race has taken place at a later date than that of the inhabitants of most other parts of the empire."

Many of the localised Chinese on the north-eastern frontier are assimilated members of the Lolo group of tribes, or even Shans or Was, or members of the Miao or Yao tribes. But if the exact ethnical status of the Chinese on their arrival in the country is indeterminate, it becomes chaotic after a short lapse of time. The Chinese immigrants are preponderately male, and the Chinaman is in high repute with the women of all the races in the province as a husband. Even the endogamous Karens are known to succumb to the possibility of obtaining a family alliance with a Chinaman; and among other races, he is a markedly favoured suitor. Consequently, the Chinese born in the country show an even greater variation in race than the immigrants. The ethnical confusion is completed by the practice of the sons of all mixed unions of Chinese with the women of the province being brought up as Chinamen, while the daughters adopt the race of the mother. Under such circumstances, racial classification becomes purely empirical. The confusion extends beyond purely ethnical considerations. It affects the proportions of the sexes so far as they can be treated from a racial point of view, and introduces numerous anomalies and complexities in other directions.

The increase in the Chinese community to almost double their previous numbers in the past ten years is the resultant of many factors. Of the total increase of 60,348, the newly included areas of Kokang and West Manglun contribute 18,791. The extension of racial classification to the Kachin Districts of North Hsenwi and the areas previously estimated in the Myitkyina District also accounts for a large number. The disproportion between the sexes of this race in Burma proper is greater even than is indicated by the figures for the province as a whole. The Chinese in Kokang and West Manglun being practically indigenous, show approximately equal proportions. If these be deducted from the whole the ratio of males to females is appreciably increased. The large increase in the Chinese population of the country is not regarded with such jealousy as the increase in the numbers of Indians. There is a general opinion that the Chinese admixture improves the indigenous racial stock, whereas the contrary opinion is strongly held with regard to the admixture of the Indian and Burmese races. It is also possible that the numbers of the Chinese are not of sufficient magnitude to give any cause for jealousy.

	Males.	Females.
Kokang ...	9,385	8,442
West Manglun ...	483	481
Total ...	9,868	8,923

BIRTH-MARKS AND MELANOGLOSSIA AS RACIAL TESTS.

325. **Birth-marks as a Test of Race.**—In connection with the census an attempt was made to follow up a suggestion made by Herr Bealz that certain birth-marks may be an important criterion for distinguishing members of the Mongolian race. The phenomena and the problem may be stated in a translation of his own words:—

"I now come to a test which is one of the most interesting in the whole of Anthropology, *viz.*, the blue patches on the skin of Mongolian children. Until I described them eighteen years ago, these patches, strange to say, had never been considered; and even now they appear to be unknown to most anthropologists. Every Chinese, every Korean, Japanese and Malay is born with a dark blue patch of irregular shape in the lower sacral region. Sometimes it is equally divided on both sides and sometimes not. Sometimes it is only the size of a shilling, and at other times nearly as large as the hand. In addition there are also more or less numerous similar patches on the trunk and limbs, but never on the face. Sometimes they are so numerous as to cover nearly half the surface of the body. Their appearance is as if the child had been bruised by a fall. These patches generally disappear in the first year of life, but sometimes they last for several years. If it be the case, as I believe, that such patches are found exclusively amongst persons of Mongolian race, they furnish a most important criterion for distinguishing between this and other races. The Ainos have not got these patches, save in isolated cases where traces of them possibly indicate an admixture of Mongolian blood. Children of mixed Japanese and European parentage who take after the European parent have not got these spots; those who share the peculiarities of both parents have traces of them, and those who take entirely after the Japanese parent show them very distinctly."

The enquiries made in this connection were not official, but an endeavour was made to interest civil surgeons, missionaries, nurses and others who were in a position to obtain special information on the subject in the investigation. The results varied greatly both in reliability and in the possibility of reduction to statistical form. One civil surgeon gravely examined all the prisoners in the jail under his charge in order to search for a symptom which generally disappears in the first year of life. Another informed his Deputy Commissioner that the phenomenon was unknown and that the existence of such birth-marks on Mongolian children was probably a delusion. Yet when confronted with the results obtained in a few other districts, his successor found that the marks referred to were present in all infants with very few exceptions, that even in the few exceptions found there were marks of a sort, but slight and indefinite, and that the people themselves recognise the mark to be almost, though not quite, universal among their infants. Other investigators failed to take any record of the race of the children examined, or of the children on whom such marks were found. Consequently the results obtained are difficult to arrange statistically, and many of them are of but doubtful value. Subsidiary Table II of this chapter gives the results as far as it has been possible to reduce them to statistics and a marginal statement gives a racial summary of the figures. But these represent but a small proportion of the total cases examined and of the total information received. It is possible that a truer conception of the prevalence of these distinguishing birth-marks can be obtained from those reports which have not been in a form to present satistically, than from those incorporated in the tabular statements.

Statement showing prevalence of certain birth marks among children of various races.

Race.	Number of Children.		Percentage.
	Examined.	Found with birth marks.	
Burmese	1,713	1,122	65
Arakanese	9	7	78
Karen	168	102	61
Taungthu	2	1	50
Talaing	117	90	77
Shan	118	26	22
Kachin	113	18	16
Chin	484	289	60
Palaung	700	70	10
Chinese	68	17	25
Hindu	114	25	22
Mahomedan ...	82	20	24

326. Prevalence of Distinguishing Birth-marks in the Shan States.—Among the reports of great interest, but which do not discriminate between the various races examined, and which are not capable of statistical treatment, are those received from the Shan States. They represent enquiries made among the numerous racial groups which are found within their limits. Extracts are given from the reports received from the following officers :—

The Assistant Superintendent, Central Subdivision, Southern Shan States :—

"Enquiries among the Shans, Taungthus, Danus, Inthas, Red Karens, Padaungs, Zareins, Yinbaws, Taungyos and Li-saws go to show that from 80 to 90 per cent. of their children, over 3,500 were examined in the charge, are born with blue patches on one or both buttocks and other parts of the body. They are generally of an oval or irregular shape and of the size of cotton, tamarind, and Indian corn seed, two, four and eight anna pieces, one to five inches length and three to four fingers' and the palm of the hand's breadth. They disappear within a period of three months to five years."

The Assistant Superintendent, Kengtung Subdivision, Southern Shan States :—

"Undersigned regrets he is only in a position to give general information on the subject which is in effect that amongst the Shan population the prevalence of the phenomena is very frequent; in some localities roughly one-third of the children are born with blue patches. In some cases the marks occur on both sides of the legs—the marks are most frequently round, the largest met with being three inches in diameter, but the majority being about one inch by two inches."

The Assistant Superintendent, Western Subdivision, Southern Shan States :—

"I have been unable to collect detailed or statistical information. I have, however, made frequent enquiries among Taungyos, Taungthus, Danus and Shans, and in each case have been told by the mothers that small birth-marks invariably occur on one or both buttocks, and disappear gradually in the first one to four months of life. In Zerbadi children, some are born with the marks and others not. The colour of the marks is described as a dull reddish."

The Assistant Superintendent, South-Eastern Subdivision, Southern Shan States :—

"From enquiries I have had made from midwives fully 80 per cent. of Shan, Taungthu and Yang children when born have the characteristic blue mark varying in size from a pice to a hand's breadth. In the case of the larger marks the marking is said to be a series of spots rather than a continuous patch. The marks are said to disappear rapidly after birth within a period of a few days to a month."

The Assistant Superintendent, North-Eastern Subdivision, Southern Shan States :—

"Enquiries amongst a number of Shan midwives elicited the information given below :—

1. Size.—A rupee to the palm of the hand, *shape* irregular, *colour* blue.
2. Date of disappearance—between four and five years.
3. Degree of prevalence—70 per cent."

327. Other Reports on birth-marks not strictly classified by Race.—Reports from the civil surgeons of two of the regular districts of the province are neither separable into the various races mentioned nor presentable in statistical form. They are as follows :—

"I have examined a large number of children amongst the several classes, *viz.*, Burmese, Shans, and Chinese, and I find that with very few exceptions the mark referred to is present in infants. Even in the few exceptions that I examined one might say that there were marks of a sort but they were so slight and indefinite that I preferred to class them as without. The people themselves recognise the mark to be almost though not quite universal amongst their infants.

"I have formed a committee consisting of a member of each nationality who could assist me, *viz.*, Talaing, Taungthu, Burman and Mahomedan and two midwives who have an extensive practice plus my Sub-Assistant Surgeon and my Diplomed Midwife of the Dufferin Hospital. Regarding 'blue patches'. We all have unanimous experience and opinion that in almost 90 per cent. of births in all nationality have shown its presence and usually disappear gradually in three years or so. This is invariably reported throughout my enquiry both in the town and in the District in the course of my touring, and yet I am sorry I could not supply you with statistics but suggest to take 90 per cent. of births having 'Blue patches' as said above. Other permanent dark marks varying from a small pea to a half a rupee size shading in colour from deep dark to a light streaks of blue is said to be in (some say) ten to twenty-five per cent., but they are said to have a history of prognostication of its own, and the Talaing, Taungthu and the Burmese are great believers in it.

"Such mark if found on foot they read as one who will be a traveller.

"If on buttock—as one who will pass his age without difficulty.

"If on abdomen or throat—as one who will be a lazy and heavy eater.

"If on shoulder will be a cooly.

"If on back will be a labourer working in the sun."

Another report from a Township Officer reads :—

"From enquiries and from my own personal knowledge every Burmese as well as Karen child has 'birth marks' on it, *viz.*, blue patches of varying sizes in different children on their birth. These however disappear when the child is about twelve months age—sometimes sooner, sometimes later. These patches are seen on the buttocks only."

328. Birth-marks among the Burmese.—Five of the reports received, some accompanied by tabular statements, and some merely couched in general terms are worthy of quotation as indicating the general prevalence of these characteristics among the Burmese. The first three are from Civil Surgeons, the fourth from a Deputy Commissioner who took a great personal interest in the question and the last gives details of the family of a well-known and highly placed Burmese official.

"My observations have been solely amongst Burmans. For years the blue patches prescribed by Herr Bealz have been noticed by me without exception. In children born from parents where one is of European or Asiatic blood the marks are sometimes faintly present. I have not found them in the children of natives of India. I have examined about 50 cases and in every case where the parents were Burmese the marks (blue patches) were visible. In those that had natives of India as one of the parents the marks were occasionally visible. In others it was absent.

"As regards the second question the prevalence of blue or pink patches on the skin of new born Burmese children (in Burma those are known as birth-marks) are well-known to almost every family. I may safely confine my remarks to the Arakan Division, especially Akyab, where I spent the best portion of my service. Almost every child born there has some kind of mark, mostly blue, occasionally darkish brown or pinkish patch on the skin.

"From the attached table you will see the result of observations made in this town. Out of 191 Burmese children no less than 181 were born with patches as described by Herr Bealz. The dark-blue patch usually occurs in the lower sacral region, but I have seen patches on other parts of the body. There is an adult in the jail here, age 31 years, who has a dark blue patch (Burmese Amhat or Sa) on the back of his left shoulder joint. This case illustrates the occasional persistence of the 'birth mark'.

"I examined 32 children, most of them under two years of age. Of these 23 had the patch, and four were said to have had it when younger. The remaining five were said never to have had it, but only one was an infant. They were said to be pure Burmans. All the patches were about the place mentioned, but in one case the pigment extended all over the buttocks, as if the child had sat on wet paint. Another child was said to have been born with a patch between the shoulders besides the one in the usual place. The age at which the patch disappeared was given variously from a year to four or five, and sometimes ten years.

"I am the father of nine children. Seven of them have such marks, the eldest one now 23 years old has still a circular blue patch the size of eight anna bit on his right t high. One girl, aged eight, has still a reddish brown patch on the nape of neck merging into hairy scalp. One boy at 12 has a pink patch on the right breast, an irregular patch three quarters of an inch by half an inch. Other three children had dark brown and blue patches on buttocks and thighs, but this disappeared a few years after birth. One of my daughters now aged two and a half years was born almost dark brown. Month after month this coloration gave way and she can now be pronounced as fair, except her buttocks which still retain darkish brown color, but not so dark as when she first saw light."

329. Birth-marks among the Karens.—Reference has already been made in previous quotations, relating jointly to several races, to the prevalence of these special birth-marks among the Taungthus, Red Karens, Padaungs and Zayeins, all of them Karen tribes, as well as among the Karens themselves. Other reports giving special consideration to the Karens are as follows :—

A Roman Catholic missionary writes :—

"With reference to our conversation and after more enquiries I am glad to state that the blue black spots remarked on the children of Korea, Japan and Manchuria, can be seen amongst the Karen of this country. For my part after nine years spent amongst them, I cannot remember a single exception to that rule out of over a thousand babies from both sex. Those spots are generally very large without well delimitated shape. Often amongst the Sagu Karen, fairer than the Po Karen, it appears on a light blue-black to disappear gradually during the first year. The body which is too quite covered with hair at the birth time became clean at the same time with the disappearance of those spots."

A Sub-Assistant Surgeon writes :—

"Judging from the information gathered from Karennis, the appearance of birth marks is very prevalent among Karenni children. The mark which is a blue patch generally appears at the buttocks."

An American Baptist Missionary writes :—

"After seeing you at the hospital yesterday I had a conservation with a Karen young man who told me that it was usual for Karen babies to have a dark spot on the buttock. He said he thought perhaps one in twenty might be without it, and recalled to my mind the fact that a Karen baby to whom I recently gave a quinine injection, had it. That child was six months old, and the mark was quite distinct, but the young man said it usually disappears at about the third or fourth month or at about the time when the child fills out and looses the skinny, flabby appearance which it bears at birth. He said, too, that the Karens have a saying that if a child is born without this mark, it shows that the mother will have no more children, the strain is finished. An enquiry into this matter might be of interest. The last egg laid by a hen before sitting is likely, I think, to be imperfect. The blue mark may be a sign of sexual vigour on the part of the mother, and the failure of this power may be accompanied with the disappearance of the sign. That would make the proportion given by the young man, one to twenty, not far from right, I should think, including cases in which the mother does not live to reach the age of sexual subsidence."

A Professor from the Rangoon Baptist College after a careful examination of the children of six Karen families makes the following comments :—

"I incline to think that the percentage of those born with birth-marks will be greater than appears from these figures (16 out of 23). The marks vary greatly in size, and unobservant parents might overlook the presence of small marks. Certain Karens in whose intelligence I place much confidence tell me that nearly all Karen children are born with the marks in question."

330. Birth-marks among the Talaings.—The Talaings have already been mentioned in this respect in a joint report giving conclusions derived from the examination of several races. The following reports from the Amherst District concern Talaing children only :—

"From personal knowledge and from enquiries I find that all the children among the Talaing have more or less the blue birth-marks lasting from 1 to 5 years.

"I have examined 117 cases at Kado and found blue patches on the buttocks and on the backs of 90 children. They are all Talaings."

Concerning the Talaings of another district, the Civil Surgeon writes :—

"I am informed that the patches are very common amongst Talaings in this district. I personally know of a baby, born of European father and Talaing mother, who had a blue patch on the sacral region. The mark disappeared within the first year."

331. Birth-marks among the Chins and Kachins.—As regards the prevalence of the blue patches in the lower sacral region among the Chins, 484 Chin children under one year of age were examined with the result that 289 showed blue pigmented patches of varying sizes. From Bhamo, an examination

of 17 Kachin children revealed 7 such marks on the buttocks, but it is stated that the occurrence of dark patches on the skins of new born babies especially on the buttocks is said to be common among the Kachins and kindred tribes. Particulars of the seven children so marked are as follows :—

I. Child, three years of age, had at birth a patch as large as two hands on the buttocks half way up the spine. The patch is now disappearing and is irregular in shape.

II. Three other children, aged one and-a-half years, had each three circular shaped spots about the size of a rupee and a patch about the size of a hand on the buttocks. All are gradually disappearing.

III. Two children, about one year old, had 8 and 7 bluish spots on spine and buttocks, respectively. The spots were between the size of a four-anna bit and a rupee, and were very irregular in shape.

IV. One two-year old child had a spot about the size of a four-anna piece which still shows no signs of disappearing.

332. **General Conclusions as regards Birth-marks.**—General reports, the majority of them unaccompanied by any figures have been quoted rather extensively, partly in order to supplement the statistics obtained and partly because they are more reliable than any figures at present obtainable. It is obvious that for a really scientific examination, worthy of presentation in statistical form, the observation should be taken at birth. The marks vary so much in intensity and colour, and disappear so gradually, that it is highly probable that many marks which may have existed may be absent in children of twelve months, six months or even of three months of age. There has been no opportunity for any such scientific examination in the time at disposal, and the means for effecting such an examination have been so limited that it has been impossible to carry it into effect. An examination has been made of a large number of children ranging in age from the day of birth to two and three years. Naturally with each extra month of age the probability of finding the marks grows less and less, and the percentage of marks found must be lowered considerably by the examination of children who originally possessed them, but from whom they had disappeared in course of time. The existence of such marks individually, and their disappearance, would not be so naturally remembered as the general prevalence of the marks among newly born children. The most reliable facts are the general recollections and observance of parents and midwives which could not be reduced to tabular form. The reports indicate that among the indigenous races of the Province (Burmese, Karens, Taungthus, Chins, Kachins, Shans, Talaings, Danus, Inthas, Taungyos) and their sub-tribes, the existence of a coloured patch of irregular shape in the lower sacral region is almost. if not quite, universal. The colour is generally dark blue, but variations in colour from dark brown and dull reddish to pink have been observed. The position is generally on the buttocks, but the patches are frequently found in the spinal region, and occasionally at the upper portions of the back. Their shape and size are as varied as their colour. One case is mentioned as being similar to the effect produced by the child sitting on wet paint. Other cases occurred in which the patches were as large as two hands, and they vary from this size down to the size of a four-anna bit or a small pea. There is no uniformity to be found as to their shape. The most frequent shape takes the form of an irregular patch extending on both sides of the sacral region sometimes joined together and sometimes separated into two portions. Occasionally they break up into several small patches as many as seven or eight being mentioned in some cases. The age of disappearance varies with the intensity of the colouring. The patches of faintly marked colour disappear in a few months. The majority have disappeared at about the end of 12 months. They then gradually grow fainter, but persist in some instances till the child is 3, 4 or 5 years of age. A few instances of persistence until adult age is reached have been noticed. It is difficult to assign a percentage to a phenomenon so generally known, and yet so inadequately observed and recorded. The absence of the marks is the exception rather than the rule. Between 80 and 90 per cent. would represent the number of babies born with the marks. If anything this percentage is an under-statement. One Civil Surgeon states that even in the few exceptions examined there were marks of a sort but that they were so slight and indefinite that he preferred to class them as being without them. It is possible and even probable that the percentage would be increased, if rudimentary markings such as would be likely to escape the notice of the average parent or midwife were to be included.

As to the anthropological or enthnological conclusions to be derived from the existence of these marks I can offer no opinion. The observations taken on the children of non-indigenous races were so few and the caste or race of the parents of such children were so doubtful, that they afford no means of comparison. It is not till the results obtained from the examination of or rather the enquiry into, the prevalence of this phenomenon among the races of Burma are compared with those obtained in other provinces that any definite conclusions can be formulated.

333. Melanoglossia.—The genesis of the enquiries into the prevalence of the phenomenon of Melanoglossia is a note by Surgeon Captain Maynard, I.M.S., from the Indian Medical Gazette of October 1897. The salient points of his note are indicated in the following extracts :—

"When examining coolies for emigration from Lohardaga to Assam during the last cold season, the number of pigmented tongues met with was rather striking, and some observations were made on their frequency, etc. These observations are principally of anthropological interest. Their pathological significance is nil, and this probably accounts for the slight attention paid to them in our text-books. Hilton Fagge, after briefly describing maculæ, ephelides and lentigo, mentions that "precisely similar minute dark spots appear in covered parts of the skin, and in mucous membranes sometimes along with the melasma of Addison's disease or from pigmentation from malaria and sometimes in conditions of health. Others are congenital and may then be described as pigmentary naevi or mother's marks." The coolies were examined consecutively and taken haphazard, not selected.

"In all 347 tongues were noted, and pigmentation was found in 111 or 32 per cent.; 203 were males, and in them 69 tongues or 33 per cent. were pigmented; 144 females were examined, and 44 pigmented tongues or 30·5 per cent. found.

"The other castes include a considerable number of castes of Aryan origin, and the relative infrequency of pigmented tongues among them (19·9 per cent.) compared with their frequency among the Dravidian tribes (average 44·8 per cent.) confirms the general impression I had formed that the pigmentation of the tongue varies with the pigmentation of the skin. For the Kolarian tribes (Mundas, Oraons, Kharias, etc.) have, as a rule, the blackest skins possible, and the depth of skin pigment was generally observed to correspond directly with a depth of the tongue pigment. The distribution and extent of the discoloration varied greatly. In some cases the fungiform papillae were each surrounded by a blue or brown rim, giving the tongue a curious speckled look; in others there were irregular blue or black blotches, simple or multiple, and varying in size from a two-anna bit to a rupee on the dorsum or along the edges of the tongue. In one only was the whole tongue black. In no case were the gums or roof of the mouth pigmented. The marks were found at all ages, though more commonly more widely spread and of deeper hue in adults than in children.

"Thus Melanoglossia, as far as these 347 cases go, would appear to be largely a question of race, and to be more common the lower the race is in the scale of civilization. It is almost equally common in the two sexes. It would appear to be hereditary, though not necessarily appearing in early childhood. No connection with any diseased condition was to be made out."

Great difficulty was encountered in conducting the examination as the practice of chewing betel so common in Burma has led to an artificial discoloration of the tongue which must be rectified before any natural discoloration can be investigated. The most valuable and reliable observations were therefore those made in jails and hospitals where an enforced abstinence from betel chewing rendered the examination feasible. The results tabulated in Subsidiary Table III are condensed for the various races in a marginal statement. The percentage of Melanoglossia found is much less than that observed by Captain Maynard among the castes he examined. This appears to be due to the principle that the pigmentation of the tongue varies with the pigmentation of the skin; the depth of the tongue pigment varying with the depth of the skin pigment. The races of Burma are much fairer generally than the castes of India, and there is consequently a much lighter percentage of Melanoglossia. Except in this secondary manner, that Melanoglossia being less marked among the fairer races is consequently an indication of race, it is doubtful if the results obtained will be of any value in the matter of racial determination.

Melanoglossia among the races of Burma.

Race.	Number of persons,		Percentage.
	Examined.	Found with Melano-glossia.	
Burmese	5,506	217	4
Arakanese ...	333	...	...
Karen	353	77	22
Shan	299	23	8
Kachin	152	2	1
Chin	35	..	...
Chinese	536	13	2
Talaing	98	43	44
Manipuri	9	4	44
Indian (unspecified)	1,164	105	9

SUBSIDIARY TABLE I.—*Variation in Principal Tribes, Races and Groups since* 1871.

Tribe, Race, or Group.	Persons.					Percentage of variation. Increase (+) Decrease (—).			
	1911.	1901.	1891.	1881.	1872.	1901—1911.	1891—1901.	1881—1891.	1872—1881.
1	2	3	4	5	6	7	8	9	10
Chin Tribes ...	306,486	215,158	113,980	68,788	70,086	+42	+89	+66	- 2
Kachin	162,368	64,405	2,090	...	...	+152	...	...	...
Kachin Burma Hybrids.	10,167	1,255	1,393	...	...	+710	- 10	...	...
Lolo Group ...	67,418	47,609	11	...	...	+42	...	...	...
Burma Group ...	7,986,327	7,097,248	5,769,278	2,623,294	1,938,194	+15	+23	+120	+35
Burmese	7,479,433	6,508,682	5,405,851	2,623,294	1,938,194	+13	+20	+106	+35
Arakanese ...	344,123	405,143	354,900	...	...	−104	+14	...	...
Intha ...	52,685	50,478	...	...	...	+4	...	...	...
Danu ...	70,947	63,549	547	...	...	+12	...	...	...
Taungyo ...	19,656	16,749	...	...	...	+17	...	...	...
Sinitic Group (Karen).	1,102,695	903,361	540,927	616,838	356,229	+22	+67	−12	+73
Taungthu ...	183,954	168,301	4,690	35,554	24,923	+9	...	...	+43
Karenni ...	19,008	4,936	1,749	...	...	+285	+182	...	...
Tai Group ...	996,420	863,672	178,582	59,723	36,029	+15	+384	+199	+65
Shan	926,879	787,087	178,321	59,723	36,029	+17	+341	+199	+65
Khün ...	42,366	41,470	...	...	...	+ 2	...	...	...
Lu	17,331	16,227	...	...	...	+7	...	...	...
Mon-Khmer ...	493,123	390,484	471,011	154,553	181,602	+26	−17	+205	−14
Talaing ...	320,629	321,898	467,885	154,553	181,602	...	−31	+203	−14
Palaung ...	144,139	56,866	3,126	...	...	+153	...	...	...
Wa	14,674	9,412	...	...	...	+56	...	...	...
Chinese ...	122,834	62,486	41,751	12,962	12,109	+97	+49	+222	+7

SUBSIDIARY TABLE II.—*Birth-marks by District and Race.*

Name of District.	Race.	Number of persons examined.	Number in which blue patches found.
Sandoway	Arakanese	9	7
City of Rangoon	Burmese	10	3
	Karen	23	16
	Mahomedans	1	1
Myaungmya	Burmese	191	181
Toungoo	Burmese	91	66
	Karen	100	80
Amherst	Burmese	1	...
	Karen	1	...
	Taungthu	2	1
	Talaing	117	90
Tavoy	Burmese	42	1
	Karen	8	..
	Hindu	1	...
	Mahomedan	2	...
	Chinese	2	...
Thayetmyo	Burmese	101	72
	Hindu	21	5
	Mahomedan	6	2
Mandalay City	Indian	1	...
Bhamo	Burmese	40	...
	Hindu	28	2
	Mahomedan	28	...
	Chinese	28	...
	Kachin	26	7
	Indian	1	...
Myitkyina	Burmese	21	5
	Hindu	27	6
	Mahomedan	3	1
	Chinese	13	2
	Shan	4	2
	Kachin	1	1
Katha	Burmese	11	9
	Chinese	1	1
	European	1	...
	Indian	4	1
Ruby Mines	Chinese	6	...
	Shan	69	9
	Kachin	86	10
	Palaung	700	70
Upper Chindwin	Burmese	116	53
	Hindu	33	8
	Mahomedan	29	5
	Chinese	3	3
	Shan	2	2
Kyauksè	Burmese	50	...
Myingyan	Burmese	1,039	732
	Hindu	4	4
	Mahomedan	13	11
	Chinese	15	11
Southern Shan States	Karen	36	
	Shan	43	13
Chin Hills	Chin	484	289

SUBSIDIARY TABLE III.—*Melanoglossia by District and Race.*

Name of District.	Race.	Number of persons examined.	Number in which Melanoglossia found.
Akyab	Burmese	100	...
	Indian	3	...
	Hindu	2	...
	Mahomedan	75	...
	Chinese	6	...
	Chin	20	...
	Arakanese	317	...
City of Rangoon	Burmese	1,658	6
	Indian	341	11
	Chinese	111	...
Hanthawaddy	Burmese	1,500	25
	Hindu	23	...
	Mahomedan	25	...
	Chinese	23	...
Tharrawaddy	Indian	1	1
Pegu	Mahomedan	...	1
Ma-ubin	Burmese	160	...
	Karen	23	...
	Indian	8	...
	Chinese	6	...
Toungoo...	Burmese	...	1
Amherst	Burmese	231	122
	Karen	138	76
	Indian	91	59
	Chinese	15	11
	Shans	21	15
	Talaing	98	43
Tavoy	Burmese	392	...
	Karen	97	...
	Hindu	64	...
	Mahomedan	40	...
	Chinese	112	...
	Shan	1	...
Thayetmyo	Indian	58	3
Bhamo	Burmese	118	1
	Indian	3	1
	Hindu	59	...
	Mahomedan	53	1
	Chinese	100	...
	Shans	11	...
	Kachin	64	...
Myitkyina	Burmese	64	3
	Hindu	108	2
	Mahomedan	84	4
	Chinese	126	2
	Shans	2	...
	Kachin	74	1
Katha	Burmese	39	1
	Indian	10	1
	Chinese	21	...
	Shans	33	1
	Kachin	14	1
Upper Chindwin	Burmese	168	47
	Indian	14	6
	Hindu	26	6
	Mahomedan	11	4
	Chinese	1	...
	Shans	20	6
	Assamese	2	1
	Manipuri	7	3
	Anglo-Indian	4	...
Myingyan	Burmese	1,035	11
	Karen	22	1
	Hindu	20	2
	Mahomedan	11	...
	Chinese	15	...
	Shans	122	1
	Chin	15	...
	Arakanese	16	...
Southern Shan States ...	Burmese	41	...
	Karen	73	...
	Indian	34	3
	Shans	89	...

CHAPTER XII.

Occupations.

SCHEME OF CLASSIFICATION.

334. Classification of Occupations.—A revolutionary change has been affected in the classification of occupations as compared with that adopted at the two previous enumerations of 1891 and 1901. In 1891 Mr. Baines, now Sir J. Athelstone Baines, C.S.I., devised a system based entirely on Indian conditions and requirements. Its object was to group the entries in the census schedules as far as possible in accordance with the distribution of occupations in India in general, and at the same time to allow room for the designations of special features found only in certain provinces. It specially disclaimed any association with the classification in use at the census of communities further advanced in economic differentiation, or with a classification based on the abstract laws of sociological science. This method followed in 1891 and 1901 has now been superseded by a system based on a report of the eminent French Statistician, M. Bertillon, made at the Paris Session of the International Institute of Statistics in 1889, and subsequently revised at the Vienna Session in 1893. The essence of this system is the recognition of the two features specially disclaimed by Mr. Baines. It is founded on the increasing importance of the classification of employment as a branch of sociological science, and on the necessity of co-ordinating the main heads of classification of all countries and communities, whatever may be their differences in detail. The following extracts from a translation of M. Bertillon's report indicate its fundamental principles :—

"The chief aim in drawing up this plan has been to secure uniformity in the statistics of occupations. At present the necessity of uniformity in statistics of labour is strongly insisted upon. The study of the organization of labour is assuming a steadily advancing position in government inquiry. As progress is made in this study the stronger becomes the conviction that in order to obtain practical results a certain international agreement is indispensable. How can this agreement be hoped for if the elements of statistics, which form the basis of it, are not comparable? The work which we are undertaking, therefore, does not aim simply at satisfying the curiosity of the learned; it has a more important bearing, and may help to solve most serious problems, which may be presented in a few years to all Governments. If it were proposed to adopt a single classification, some countries would not co-operate, thinking it too complex, while others would consider it too short. This difficulty is avoided by proposing three classifications, which blend together in some measure, since each is developed by the subdivision of the preceding. The first of the classifications is very condensed, numbering only 61 headings. The second reproduces certain of these general headings, and develops from them a great many others, numbering 206 headings. Finally, the third develops these still further, and contains 499 categories. But there is no reason for limiting our choice to these three classifications. The uniformity of statistics of occupations will in no way be altered if, for example, a country should adopt the second classification, and substitute for some of its headings the corresponding ones of the first or third classification. It is important, however, that the general frame-work should always be that of the first classification, the most condensed of the three, and that the occupations should be arranged according to the third classification, the most detailed of the three."

335. Comparison of Past and Present Schemes.—It is obvious that there must be considerable diversity between two schemes of classification so fundamentally different in their conception, the one based on an empirical review of purely Indian conditions, and the other based on the application of economic science to secure a uniformity of classification throughout all civilised communities.

The following statement compares the main heads of classification of the two schemes :—

Sir J. A. Baines' system, Census 1891 and 1901.		M. Bertillon's system, Census 1911.			
Class.		Class.		Sub-Class.	
Symbol.	Description.	Symbol.	Description.	Symbol.	Description.
A	Government	A	Production of raw materials.	I	Agriculture.
				II	Extraction of minerals.
B	Pasture and agriculture ...	B	Transformation and employment of raw materials.	III	Manufacture.
				IV	Transportation.
C	Personal services			V	Trade.
				VI	Public Force.
D	Preparation and supply of materia. substances.	C	Public administration and the liberal arts.	VII	Public Administration.
				VIII	Liberal professions.
E	Commerce, transport and storage.			IX	Independent.
				X	Domestic.
F	Professions	D	Miscellaneous	XI	Insufficiently described.
G	Indefinite and independent			XII	Unproductive.

336. Reasons for Adoption of New Scheme.—There are so many objections to any change in a system of classification once adopted, that the new scheme was not adopted without much hesitation and discussion. The greatest value of all statistics lies in their dynamical rather than their statical utility. It is the comparison of statistics with those of corresponding facts for other dates, and the light that is thereby thrown on social life and customs for the intervening period, that gives them their highest value; and anything which tends to render such comparisons impossible or obscure, is to be deprecated. But the possibility of comparison, valuable as it is, may have to give place to other considerations. Such was the case with the classification of employments as adopted in 1891 and 1901. It was generally admitted that the 520 groups, into which this scheme of classification ultimately resolved itself, was far too elaborate for census work in India. It involved an excessive amount of labour in compilation, and introduced such complexities of tabulation that the results were of less value than would be obtained from a simpler scheme. Moreover there were several minor defects in the previous classification. For instance, traders dealing in specified articles were included in Class D,—Preparation and supply of material substances, while traders unspecified were entered in Class E,—Commerce, transport and storage. Again, miners of specified minerals were included under Class D, whereas miners of unspecified substances were entered in Class G. It is impossible to devise a scheme of occupational classification free from some anomalies of this nature, but those just instanced were capable of rectification. Some modification was therefore imperative and the only questions for decision were as to the nature and degree of modification. Should it be a simplification by amalgamation and reduction of the detailed heads of the previous system, leaving the previous main heads of classification unaffected; or seeing that change was necessary, should the change be so comprehensive as to bring the statistics of Indian employment into line with the results of the most advanced statistical and sociological science? The following extracts show the trend of European and American authority on these questions. M. Joseph Karosi, Director of the Communal Bureaux of Statistics at Buda Pest, who is willing to sacrifice his own scheme on the altar of uniformity, writes as follows:—

"If one recognises the great importance of presenting the statistics of occupation in an uniform, comparable form, one will regard as a lesser evil the abandonment in part of one's own hitherto-followed scheme. For my own part, I do not hesitate to declare that, however much I may dislike the loss which a change in my scheme would entail in the matter of comparing future results with those of the preceding decennial enumerations, I will willingly adopt the scheme agreed on by the majority of the Institute in order to ensure comparability for all future censuses in all countries."

Dr. David R. Dewey in an article on census classification of occupations in the United States concludes thus:—

"It is highly desirable that some general scheme should be adopted similar to that proposed by M. Bertillon which is flexible in adaptability to compression or elaboration as the wants of different states may demand, but at the same time sufficiently rigid to admit to the drawing of comparisons, not only between different states, but also from one census of another."

Mr. E. A. Gait, C.I.E., Census Commissioner for India, records his decision to effect the change in the following terms:—

"The great majority of Provincial Superintendents are strongly in favour of the adoption at the coming census of a new scheme of classification, based on that of Monsieur Bertillon and I agree with them. Monsieur Bertillon's scheme was worked out, with a view to rendering possible the comparison of the occupation statistics of different countries, after a careful study of the various schemes in actual use; and it was revised in consultation with a number of the leading European statisticians. It has received the approval of the International Statistical Institute, who have recommended it for general adoption. If the scheme used at the last two Indian censuses has been in every way suited to our requirements, there might have been good reasons for hesitating to make a change. This, however, is not the case. It was shown in the last India Census Report that that scheme was far too elaborate. It was moreover defective in certain respects, as mentioned in paragraph 3 of my note referred to above. Some revision would, therefore, in any case have to be made; and, this being so, it is undoubtedly desirable to take the opportunity to adopt a system of classification which has received the approval of the leading authorities on the subject, and which has already been adopted in some countries, and is likely in time to be adopted in others also. The chief objection to a change of classification is that it may interfere with the comparability of the statistics of the present census with those compiled in 1901. But it will be seen from paragraph 7 below that in most cases it will be quite easy to re-arrange the groups of the last census under the heads in the new scheme. There has been no change in the nomenclature adopted for the groups under which the

occupations of the great majority of the population will be tabulated and the discrepancies arising out of the re-arrangement will in any case be less serious than those due to various errors of classification which occurred at the last census."

337. Detailed Description of M. Bertillon's Scheme as applied to India.—It has been seen that the main divisions of employments in M. Bertillon's scheme comprises four main classes and twelve sub-classes. These are further classified into three series of minor subdivisions consisting of 61 orders, 206 sub-orders and 499 groups. But the essence of the scheme is that, whereas the main divisions are obligatory on account of the necessity of comparison with other communities, the minor subdivisions are optional and can be modified to suit local or national requirements. For the census of 1911 Mr. Gait has adopted the four classes and the 12 sub-classes of M. Bertillon as they stand. The 61 orders have been reduced to 55 by the omission of 5 orders deemed unnecessary for Indian conditions, and by the amalgamation of two others (maritime and fresh water transport) into one order designated "Transport by water". The adoption of sub-orders has been unnecessary except in the case of Order I, Pasture and Agriculture, which has five sub-orders as follows:—

(*a*) ordinary cultivation;
(*b*) growers of special products and market gardening;
(*c*) forestry;
(*d*) raising of farm stock;
(*e*) raising of small animals.

Instead of the 499 groups of M. Bertillon's system, the occupations of India have been found to fit in with a division of 169 groups only. Thus, of the five series of divisions under M. Bertillon's scheme, *viz.*, classes, sub-classes, orders, sub-orders and groups, the first two have been adopted unchanged, the third has been adopted with a slight reduction from 61 to 55 orders, the fourth has been adopted in the case of one order only out of 55, and the last of the series has been modified by reduction from 466 groups to 169. The scheme in full detail is given in the first four columns of Imperial Tables XV A-I, XV B and XV D of the Statistical Volume. The scheme for classes, sub-classes and orders only, is given in Subsidiary Table I of this Chapter.

338. Statistics of Occupation.—The presentation of the statistics resulting from the records of occupation is a task of much complexity. The actual figures are presented in Imperial Tables XV and XVI, the former of which is divided into ten sections as follows:—

Section.	Nature of Table.
XV. A-I	General Table, Provincial and City Summary.
XV. A-II	General Table, by Districts.
XV. B(i), B(ii), B(iii)	Subsidiary occupations of agriculturists (actual workers only). (i) Rent Receivers. (ii) Rent Payers. (iii) Field Labourers.
XV. C	Mixed occupations (not prepared for Burma)
XV. D	Distribution by Religion.
XV. E-I, E-II, E-III, E-IV	Industrial Statistics. I. Provincial Summary. II. Distribution by Districts. III. Ownership of Factories. IV. Caste or Race of factory managers.

Table XV. A-I gives for the province as a whole, for Burma Proper and for the Specially Administered Territories, and for the Cities of Rangoon and Mandalay, details of the numbers and sex of the workers, the extent to which they are partially agriculturists in their occupations, and the number of dependents, for each of the four clases, the twelve sub-classes, the fifty-five orders and the 169 groups of occupations of the adopted scheme of classification. Table XV. A-II gives the same particulars for each district, but omits the minor occupational groups. It differs both as to arrangement and contents, from the corresponding table of 1901. In arrangement, the districts have been arranged vertically and occupations horizontally, instead of the contrary system previously adopted. This enables a comprehensive view of each occupational head, whether class, sub-class, order or group, for the whole province to be obtained on one page of the statement; whereas by the method adopted in 1901, it was necessary to peruse

12 pages to obtain the same particulars. In contents, Table XV. A-II gives for non-agricultural occupations six columns of information for each unit, instead of three, the additional columns being ;—

(*a*) total workers and dependents,
(*b*) partly agriculturalists, males,
(*c*) partly agriculturalists, females.

Table XV. B is a statement not previously compiled. It is in three parts giving statistics for the subsidiary occupations of agriculturalists, according as they are rent receivers, rent payers or agricultural labourers respectively. Subsidiary Table XV. C is an optional table for exhibiting combined occupations. It was not deemed suitable for conditions in Burma, and has not therefore been compiled. Table XV. D gives the distribution of occupations by classes, sub-classes, orders and groups by religion. This is also a new table not having hitherto been compiled for Burma. Table XV. E is divided into four parts and is devoted to an analysis of various aspects of the special industrial census conducted for the first time in conjunction with the census of 1911. Table XVI was devised primarily to indicate the correspondence between the traditional and actual occupations of various castes. It was not compiled for Burma in 1901. It has now been compiled in a modified form to analyse the occupations of Europeans, Armenians and Anglo-Indians only. In addition to the various sections of Imperial Table XV and the information given in Table XVI the following Subsidiary Tables have been compiled :—

Subsidiary Table *I.*—General distribution by occupation.
Subsidiary Table *II.*—Distribution by occupation in Natural Divisions.
Subsidiary Table *III.*—Distribution of the agricultural, industrial, commercial and professional population in Natural Divisions and Districts.
Subsidiary Table *IV.*—Occupations combined with agriculture (where agriculture is the subsidiary occupation).
Subsidiary Table *V.*—Occupations combined with agriculture (where agriculture is the principal occupation).
Subsidiary Table *VI.*—Occupations of females by sub-classes, and selected orders and groups.
Subsidiary Table *VII.*—Selected occupations, 1911 and 1901.
Subsidiary Table *VIII.*—Occupations by religions.
Subsidiary Table *IX.*—Proportional distribution by selected occupations of Hindus and Mahomedans.
Subsidiary Table *X*(*a*).—Number of persons employed in the Postal Department on 10th March 1911.
Subsidiary Table *X*(*b*).—Number of persons employed in the Telegraph Deparment on 10th March 1911.
Subsidiary Table X(*c*).—Number of persons employed in the Irrigation Branch of the Public Works Department on 10th March 1911.
Subsidiary Table *X*(*d*).—Number of persons employed on the Burma Railways on 10th March 1911.

RELIABILITY OF OCCUPATIONAL STATISTICS.

339. Instructions for the Record of Occupations.—There is no class of entries in the census record affording such opportunities for error as those connected with occupations. On account of these difficulties special attention was given in the instructions to enumerators to obtain as complete and correct a return as possible.

In the enumeration schedules three columns were devoted to the record of employment as follows ;—

Column 9.—Principal occupation of actual workers ;
Column 10.—Subsidiary occupation of actual workers ;
Column 11.—Means of subsistence of dependents.

The following instructions to enumerators were issued : —

" *Column* 9.—(Principal occupation of actual workers.) Enter the principal means of livelihood of all persons who actually do work or carry on buniness, whether personally or by means of servants, or who live on house-rent, pension, etc."

"Enter the exact occupation and avoid vague terms such as 'service' or 'writing' or 'labour'. For example, in the case of labour, say whether in the fields, or in a coal mine, or jute factory, or cotton mill or lac factory, or earthwork, etc."

"In the case of agriculture, distinguish between persons who receive rent and those who pay rent."

"If a person makes the articles he sells, he should be entered as 'maker and seller' of them."

"Women and children who work at any occupation which helps to augment the family income must be entered in column 9 under that occupation and not in column 11. Column 9 will be blank for dependants."

"*Column* 10.—(Subsidiary occupation of actual workers.) Enter here any occupation which actual works pursue at any time of the year in addition to their principal occupation. Thus, if a person lives principally by his earnings as a boatman, but partly also by fishing, the word 'boatman' will be entered in column 9 and 'fisherman' in column 10."

"If an actual worker has no additional occupation, enter in column 10 the word 'none'. This column will be blank for dependants."

"*Column* 11.—(Means of subsistence of dependants.) For children and women and old or infirm persons who do not work, either personally or by means of servants, enter the principal occupation of the person who supports them. This column will be blank for actual workers."

It was felt that although these were inadequate to ensure absolute correctitude of the returns, they were as much as the average enumerator would comprehend, and that further detail would tend to enhance rather than remove his difficulties. To avoid frequent reference to headquarters, the instructions were amplified and embodied in a Manual for Charge Superintendents and Supervisors. These officers were thereby enabled to solve the difficulties of record experienced by enumerators, and the latter were relieved of the necessity of mastering intricate instructions for the determination of doubtful cases. The following are the amplified instructions:—

"*Column* 9.—In this column do not use general terms such as 'clerks,' 'merchants,' 'shop-keeper,' 'servant,' 'trader,' and 'labourer.' Find out the exact kind of goods sold or the class of clerk, servant or labourer."

"In the case of clerks, show whether Government, Railway, Steamer, Municipal or Merchants' clerk. If the latter, enter the occupation of the employer or firm with whom he is working."

"Distinguish between clerks and accountants, cashiers and shop salesmen, etc."

"In the case of domestic service show exactly the nature of the service rendered, as cook, butler, bearer, etc."

"In the case of officials show the exact position occupied."

"In the case of persons living on money lent out at interest, or on the interest on stocks or shares, enter as Capitalists."

"Distinguish between persons living on rent from agricultural lands, and persons living on rent from town lands or houses."

"In the case of agriculture, distinguish between—

"(*a*) Landlords."

"(*b*) Cultivators working their own land."

"(*c*) Tenant Cultivators."

"(*d*) Labourers."

"In the case of gardeners show the main product cultivated, as betel vine, durian, sugarcane, etc."

"In the case of merchants, traders, and shop-keepers, state the kind of trade, and distinguish between persons buying and selling for profit, and those both making and selling their stock."

"In the case of manufactures, specify the branch of manufacture and the position occupied in the mill or factory; as, Manager of paddy mill, coolie maistry in paddy mill, coolie in paddy mill."

"Women or children who work at any occupation must be entered in column 9."

"Examples:—

"A women assisting her husband at his work is to be entered as a worker in column 9."

"A woman looking after her house is to be entered as a dependant in column 11."

"A boy at college is a dependant."

"A girl sewing jackets for the household is a dependant."

"A girl sewing jackets for wages is a worker."

"A girl sewing jackets for her father, who sells jackets, is a worker, even though she gets no wages."

"A servant receiving wages is a worker."

"If a person has two occupations, the one occupying most time must be entered in column 9 and the one occupying less time in column 10. Only one entry is to be made in column 10. If there are two subsidiary occupations, the most important should be given. Column 11 will be filled in only when columns 9 and 10 are blank. The entry in column 11 against the name of a dependant will be the principal occupation of the person supporting that dependant."

"Servants must not be shown as dependants."

Despite the amount of instruction given, in a preliminary experimental enumeration, thirteen distinct classes of errors in recording employments were detected, and it was found necessary to issue a further series of supplementary instructions dealing with the specific mistakes detected, immediately prior to the census enumeration.

340. **Reliability of the Statistics.**—In the Census Report for India for 1901 the reliability of the statistics of occupations is considered, and the factors tending towards their general departure from actuality are classified under seven heads :—

(i) limitation of the return to one particular date,
(ii) omission to tabulate fully subsidiary occupations,
(iii) impossibility of correctly recording mixed occupations,
(iv) mistakes in the entries in the enumeration schedules,
(v) vagueness of entries,
(vi) uncertainty between makers and sellers, and as regards factory workers,
(vii) errors in compilation.

It is necessary to consider the nature of the operation of these disturbing factors, and their effect on the statistics, before actually discussing the statistics themselves.

341. **Limitation of Occupation Return to one Particular Date.**—The record of the census in March tends to depress the returns for all occupations carried on during the rainy season and the cold weather, and to enhance those which have their busiest season in the hot weather. Thus at the time of census, agricultural operations are nearly at their lowest ebb, and a large number of persons engaged in agriculture for the greater part of the year are temporarily engaged in other pursuits. Similarly, the inland fishing industry has almost ceased by March, and many of the fishermen are then most probably working at other occupations. On the other hand, occupations, such as transport and rice-milling in the realm of large industries, and others, such as the drama, itinerant trading, and ice and ærated water manufacture, among small industries, are at their busiest at the time of the census. Human nature, being as it is, it is probable that the principal occupation given is that being followed at the time of the census. The statistics tend to represent the state of industry at a time of the year when the most representative of the provincial occupations are at a low ebb. It is convenient in many respects to have the census at a date between the agricultural seasons when the mass of the population is in a state of comparative leisure, but there are disadvantages in the fact that the occupational statistics reflect a state of transition between two seasons rather than the normal state of the province for the greater portion of the year.

342. **Subsidiary Occupations.**—Both Mr. Eales and Mr. Lowis have enlarged upon the versatility of the Burman in his methods of securing a livelihood. Mr. Eales considered that any attempt to return complex and combined occupations would have been an endless and useless task, as the Burman is a jack of all trades and a very large number of Burmans have worked at all sorts of employments. Mr. Lowis agrees, as the following extract from paragraph 202 of the Census Report of 1901 will show :—

"In giving prominence to what I may call the industrial versatility of the Burman Mr. Eales merely enunciates what is a well-known fact to every officer who has had any experience of the province. In India it might no doubt be instructive to learn how many field labourers, for instance, were also cart-drivers. There would be some guarantee that the figures would not fluctuate to any very great extent from year to year. In Burma, on the other hand, the indigenous field labourer who returned his subsidiary occupation as that of a cart-driver one year might very well give it as that of a toddy-tree climber a second and of a fisherman or a sawyer a third. The ploughman who during one season spent his spare hours in earning a little money by wood-cutting might during another devote them to lime boiling, and it is clear that for spasmodic workers of this kind figures regarding dual occupations would be of no practical utility."

In paragraph 354 below, in the note on the industrial organisation of an Upper Burma village contributed by Mr. Furnival, C.S., Settlement Officer of Myingyan, it is shewn that even highly specialised occupations are conducted in the spare time and vacant seasons of agriculturalists. It is beyond the capacity of the census enumerator to record this industrial versatility in the schedules. Subsidiary

occupations are recorded in but few of their numerous manifestations. But it is not only in the absence of the record of subsidiary occupations that the census return is incomplete. The possibility of the return of several alternatives as the principal occupation renders the comparative numbers dependent on each occupation largely a matter of caprice. The mood of the person enumerated, the personal equation of the enumerator, or an unanticipated reading of an instruction by a supervisor, may effect the returns, when the entry to be recorded is indeterminate. The errors due to dual occupations are perhaps more apparent in a comparison of the statistics of one census with those of the preceding census than in any other aspect. Attention will be drawn to specific instances when separate occupations are being considered.

343. Mixed Occupations.—The staple industry of Burma, agriculture, affords the best illustration of the pitfalls surrounding the record of mixed occupations. Peasant-proprietorship is essentially a mixed occupation. Its name is sufficient indication of its two-fold nature. With reference to the scheme of classification of employments followed in 1901, it formed a combination of the three occupational groups; *viz.*, rent receivers, rent payers and field labourers. In the vulgar tongue, these represented the conventional division of landlord, tenant-farmer and labourer. But the occupation of a peasant-proprietor is too complex to fit in with this scheme, framed to suit other circumstances. Economically, his work is a combination of all the three occupations mentioned. As a peasant, he was actually entered as a field labourer; as a proprietor, he might have been entered as a rent receiver; and the following extract from paragraph 316 of the Census Report for India for 1901 shows that he should really have been entered as a rent payer.

Three agricultural occupations in 1901.

Occupation.	Total workers and dependents.
Rent receivers ...	713,508
Rent payers ...	4,245
Field labourers ...	4,322,120

"In Burma the number of field labourers has risen from 682,000 to 4,322,000, but here the increment is due mainly to the entry under this head of "cultivators pure and simple", who might more accurately have been classed as "rent payers"; the number of persons under this latter head, as well as that of rent receivers, is now absurdly small, and the aggregate number of persons shown as having an interest in land is less than a quarter as great as it was ten years ago."

Thus the method of agriculture which the Local Government has adopted as being most suited to provincial requirements, and towards the establishment of which its Land Revenue policy was consciously directed, was a direct source of confusion and error in the tables of occupation at the Census of 1901. Another instance of mixed occupations affecting the reliability of the returns is in the case of gardening and raising of special crops. There is very little separate gardening or special crop-growing in Burma. Such occupations are usually carried on in conjunction with ordinary cultivation, portions of the holding occupied being devoted to general agriculture, and the remainder to a garden, an orchard or to some special crop. It is very largely a matter of chance which occupation, agriculture or gardening, is returned in such instances. Leaving agriculture for trade, the Burmese *kôn sôn* shop, or general village store, is evidently similar to the *manohâri dokân* of Bengal, the keepers of which are mentioned in the Indian Census Report of 1901 as an instance of persons following mixed occupations. Its classification rather than its record is a source of difficulty and its effect on the statistics for trade will be subsequently considered.

344. Mistakes in the Entries in the Enumeration Schedules.—It is improbable that there are any mistakes in the entries in the enumeration schedules of the class mentioned as being most frequent in India, those due to confusion of the caste or traditional occupation with the occupation actually followed. Nor are there any suggestions of wilful mis-statements by persons wishing to pretend to an occupation more respectable than that actually followed. Mistaken entries are rather due to the disregard or misinterpretation of instructions, or to a blind following of one particular rule or instruction to the exclusion of the remainder. For instance, at the preliminary experimental enumeration, it was discovered that there was numerous class of mistakes due to the entry of a son or a wife, assisting the head of the family in the working of his land, being shown either as a dependant or a coolie. Instructions were issued to prevent these mistakes and to enter such assistants in the same category as the head of the

family. These were taken as being absolute instructions that a son or wife who so assisted must be so entered, even though they might follow another occupation.

345. **Vagueness of Entries.**—Despite elaborate and detailed instructions to the contrary, entries such as coolie, *saing shin* (shop-keeper), *ze* (bazaar), *ze yaung* (bazaar seller), *ze saing* (bazaar stall), *mi yata* (railway), *asoya* (government), *saye* (clerk), *lè* (field) were frequently found in the schedules. In all such cases, attempts were made by a consideration of the remaining entries on the same schedule and the race and religion of the person with the insufficiently described occupation, to determine more specifically what the occupation really might be, and where possible a more specific occupation was entered. But in the majority of cases the entry had to be consigned to the groups specially allotted to receive vague and unspecified occupations. This was especially the case with respect to the entries of village trades in which the entries *ze* (bazaar), *ze thè* and *ze yaung* (bazaar sellers), *ze saing* (bazaar stall), *kôn thè* (trader), and *kôn* yaung (seller of goods) appeared with monotonous regularity.

346. **Uncertainty Respecting Makers and Sellers.**—The main heads of "Industry" and "Trade" necessitate that a clear distinction should be drawn between the maker and the seller of any commodity. But the language of common life frequently fails to make any distinction between the two. Indeed there is frequently no such distinction in actual fact in small town and village life, where the maker of an article generally sells it also. If the word fisherman is used to denote the person who sells fish, as well as the person who catches fish, it is because the two functions are usually performed by one and the same person. Similarly, in the case of such terms as butcher, baker, potter, confectioner, even in Europe, the economic process of the division of labour has not proceeded sufficiently far to differentiate in common language between the person preparing the commodity for sale and the person actually effecting the sale. It is natural that in Burma where economic development is far more backward, distinctions should be less marked over a wider range of employment. In all such cases, it has been assumed that the person against whom such an entry has been recorded actually made or prepared the article for sale, and his occupation has been so classed. On the whole it may be said that the attempt to distingiush between "Trade" and "Industry' however necessary it may be, is in advance of the actual conditions existing in Burma, and the resulting statistics do not possess a high degree of reliability.

347. **Errors in Compilation.**—It is inevitable that possibilities of error should arise in the reduction of the thousands of diverse entries into 169 groups. In Burma, where there was one tabulation office only for the whole province, the error, due to different interpretations of the same entry, was reduced to a minimum. The occupations for the city of Rangoon were first tabulated and a Burmese alphabetical index of every occupation returned was prepared. To these were added all the occupations tabulated at the Census of 1901. The occupations so recorded were then allotted by the Superintendent with the assistance of a general index of occupations (prepared by the Census Commissioner for India) for the 169 groups of the classified scheme. Any fresh occupation subsequently met with, was incorporated into the Burmese alphabetical index which thus gradually became a comprehensive and uniform standard for all possible occupations. But in the work of tabulation numerous errors were discovered. Slight local differences of terminology might indicate a difference of occupation which escaped notice at the time of its allotment to its appropriate group. There was always a tendency, difficult to check, to use an abbreviation for the return of any occupation lengthily described which appeared to fit in with an occupation for which an abbreviation was sanctioned. Another tendency on the part of the occupational tabulation staff was to save the time and trouble of consulting the index by relying on the memory for the group numbers of each occupation, and several errors due to this practice were detected. Some errors escaped detection until the final figures were compared with the statistics of similar occupation for 1901. Any marked discrepancies discovered were made the occasion for a re-examination of the tabulation operations in some instances reaching as far back as the process of slip copying. By this method several important errors were detected and the figures rectified.

348. **General Conclusions as to Reliability.**—In paragraph 317 of the India Census Report for 1901 the following quotations are given as to the general

reliability of the occupational statistics compiled from the census records. Mr. Baines in his report on the Census of India in 1891 wrote :—

"It may be gathered from these remarks that a high value is not attached to the results of the census of occupation. This is true, and the opinion is not confined to those who have had the administration of the operations in India alone. In some of the countries in Europe the subject is excluded altogether from the enumeration, and in one at least, which need not be named, much forethought and many elaborate instructions were rewarded by results with which the census authorities thought it advisable not to mislead the public, by including with the rest. In Germany, as well as in the United States, it has been decided that a comprehensive industrial survey, obtained by dint of detailed enquiry, spread over a considerable time, is preferable to the rough and ready return which is all that it falls within the capacity of a synchronous census to furnish"

In the report on the Census of England and Wales in 1891 it is said that :—

"A census does not supply data which are suitable for minute classification or admit of profitable examination in detail. The most that it is reasonable to expect from data so collected is that they shall give the means of drawing such a picture of the occupational distribution of the people as shall be fairly true in its main lines, though little value can be attached to the detailed features. It is not wise to demand from a material a result for the production of which it is unsuited."

Mr. Baines repeated his opinion that detailed information as to the industrial organization of a country cannot be obtained by the machinery of a general census, in which opinion he was supported by Sir Robert Giffen. In Burma owing principally to the existence of dual and mixed occupations to such an exceptional extent it is probable that the degree of reliability is less than in other countries. In India, the existence of caste may raise some difficulties owing to the confusion of the actual with the traditional occupation; but in Burma the absence of caste and the period of rapid transition through which the province has been passing, have conjointly produced a versatility impossible to reduce to statistics. The figures for the broad divisions of classes, sub-classes, and in most cases the orders, of occupations may be accepted with a certain amount of confidence, but for the individual groups where the errors have not been eliminated by the operation of large numbers, they must be received with considerable hesitation.

MAIN FEATURES OF THE RETURN.

349. Relative Strength of each Class of Occupations.—A general review of the proportions of the population supported by the twelve main sub-classes of occupations, reveals the decided preponderance of agricultural and allied pursuits over all the remaining occupations combined. The first sub-class, "The exploitation of the surface of the earth," which included the groups of occupations combined under the orders of "Pasture and Agriculture" and "Fishing and Hunting" supports 71·63 per cent. of the population, against 28·37 per cent. supported by all the remaining industries of the province. It has already been stated that these proportions are based on records taken at a period when agricultural operations are almost at their slackest for the whole year, and consequently many persons normally engaged in agriculture are entered under other occupations. It is therefore probable that on the whole more than 72 per cent. of the inhabitants of the province derive their means of subsistence from direct exploitation of the surface of the earth. Trade is the second of the

Diagram showing distribution of the population of the province by occupations.

Sub-class.	Designation.	Per-centage.	Proportional representation.
I	Exploitation of the surface of the earth.	71·63	
II	Extraction of Minerals ...	·13	
III	Industry	6·70	
IV	Transport	3·27	
V	Trade	10·00	
VI	Public Force	·66	
VII	Public Administration	·86	
VIII	Professions and Liberal Arts...	2·12	
IX	Persons living on their Income	·06	
X	Domestic Service	·71	
XI	Insufficiently described occupations.	3·57	
XII	Unproductive	·29	

sub-classes of occupations supporting exactly ten per cent. of the population. Industry, with its 14 orders of industries connected with textiles, hides and skins, wood, metals, ceramics, chemical products, food, dress and toilet, furniture, building, transport construction, physical forces, luxury and refuse matter, affords the means of subsistence to 6·7 per cent. of the population only. The extent of vagueness in the occupation records can be gauged by the inclusion of 3·57 per cent. of the population as being supported by employment in the following groups of the classified scheme :—

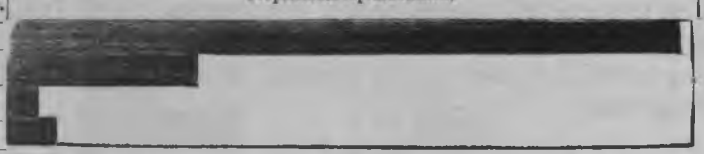
164. Manufacturers, business men and contractors otherwise unspecified.
165. Cashiers, accountants, book-keepers, clerks and other employés in unspecified offices, warehouses and shops.
166. Mechanics otherwise unspecified.
167. Labourers and workmen otherwise unspecified.

Transport, unduly active at the time of the census, affords support to 3·27 of the population only, the professions and liberal arts following by supporting 2·12 per cent. Of the remaining six sub-classes of occupations, none support so many as one per cent. of the population, and the proportions are so small that they can only be represented graphically with difficulty. Public Administration, Domestic Service and the Public Forces supporting ·86, ·71 and ·66 per cent. respectively of the total population can just be indicated on the diagram at the head of this paragraph ; but the proportions of the population deriving their subsistence from the extraction of minerals, from unproductive occupations and from independent means, are too minute for graphic representation. Combining the 12 sub-classes into the four main classes the proportions are as indicated in the following diagram :—

Distribution of population by four main classes.

Class.	Designation.	Percentage.
A	Production of raw materials ...	71·76
B	Preparation and supply of material substances.	19·97
C	Public administration and liberal arts.	3·70
D	Miscellaneous	4·57

Proportional representation.



350. Participation of Indians in Various Industries.—

Occupational Distribution by religions.

Class.	Sub-Class. No.	Sub-Class. Designation.	Percentage of population supported. Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.
A.—Production of raw materials.	I	Exploitation of the surface of the earth.	88·7	6·2	1·1	2·3	1·7	...
	II	Extraction of minerals ...	69·1	...	24·5	6·3	·1	...
		Tota ...	88·7	6·2	1·1	2·3	1·7	...
B.—Preparation and supply of material substances.	III	Industries	84·6	2·6	7·3	4·9	·6	...
	IV	Transport	72·5	1·9	13·7	9·7	2·0	·2
	V	Trade	85·7	3·5	3·6	6·5	·6	·1
		Total ...	83·1	2·9	6·5	6·5	·9	·1
C.—Public Administration and Liberal Arts.	VI	Public Force ...	57·5	1·6	15·4	12·6	7·4	5·5
	VII	Public Administration...	79·5	3·2	7·4	3·6	6·2	·1
	VIII	Professions and Liberal Arts.	89·2	·9	1·8	2·7	5·3	·1
	IX	Persons living principally on their income.	60·6	1·2	10·7	12·8	14·3	·4
		Total ...	80·9	1·5	5·7	4·8	6·0	1·1
D.—Miscellaneous	X	Domestic Service ...	42·7	2·6	3·2	15·0	7·4	·3
	XI	Insufficiently described occupations.	70·2	2·3	18·9	6·6	1·9	·1
	XII	Unproductive ...	84·1	3·5	3·9	7·0	1·3	·2
		Total ...	66·8	2·4	20·0	8·0	2·7	·1

One of the most important economic questions connected with industrial conditions in Burma is the extent to which it is dependent on Indian immigration for the

effective performance of its industrial functions. There being no racial analysis of industry, it is necessary to have recourse to the analysis by religions effected in Imperial Table XV-B and Subsidiary Tables VIII and IX of this Chapter. The figures for Hindus and Mahomedans are almost identical with those for the Indian population of the province, the only exceptions being the indigenous Mahomedan population of Akyab, and the members of other Indian religions such as Sikhs, Jains and Parsis. The statement at the head of this paragraph exhibits the percentages of each of the four main classes and the 12 sub-classes by religions. It demonstrates that Indian immigration has made a smaller impression on the class of industries concerned with the production of raw materials than on any other class. The low percentage of 3·4 for this class against percentages ranging from 11·6 to 28·1 for the other classes of industry is entirely due to the comparative exclusion of the Indian population from participation in the agricultural industries of the country. Indeed if ordinary cultivation only be considered, and the indigenous Mahomedan population of Akyab be excluded, the percentage of Indian cultivators to the total cultivators of the province falls to the exceptionally low proportion of 1·2 per cent. It is therefore a conclusion which may be accepted with a high degree of certainty, that Indian immigrant labour is not essential to the agricultural development of the province. Despite an almost phenomenal rate of agricultural expansion in the past thirty years, the proportion of the population supported by cultivation, who are of Indian nationality remains at the insignificant percentage of 1·2. It is otherwise with other industries. In Industry, Trade and Commerce, in Public Administration and the Liberal Arts and in such Miscellaneous occupations as domestic service and unspecified coolie labour, immigration from India has supplied much needed requirements, as indicated by the substantial proportions of the population, supported by such employments, who belong to the Hindu and Mahomedan religions.

Class of occupation.	Percentage of Indians supported.
Production of raw materials.	3·4
Preparation and supply of material substances.	13·1
Public Administration and Liberal Arts.	11·6
Miscellaneous ...	28·1

351. Occupational Distribution of Indian Population.—A very similar conclusion is attained if the analysis is effected by taking the percentages of the population of each religion by occupations, instead of taking the percentage of the population of each occupation by religions. As the percentages do not reflect the conditions of the province generally if the Mahomedans of the Akyab District are included, a separate calculation has been made for Mahomedans with Akyab District excluded. Less than one quarter of the Hindus in the province are concerned in the sub-class of occupations of which Pasture and Agriculture form the principal components. This percentage is but slightly exceeded by the non-indigenous Mahomedan population. Although the proportion of the total population of the province supported by employment in the preparation and supply of material substances is

Distribution of Indian population.

Class.	Sub-Class. No.	Sub-Class. Designation.	Percentage of population of each religion. Hindus.	Mahomedans.	Mahomedans, (Akyab excluded).
Production of raw material.	I	Exploitation of the surface of the earth.	24·24	47·31	28·52
	II	Extraction of minerals...	·89	·23	·31
		Total ...	25·21	47·54	28·83
Preparation and supply of material substances.	III	Industries	15·12	9·34	12·66
	IV	Transport	13·84	9·05	12·28
	V	Trade	11·08	18·58	25·20
		Total ...	40·04	36·97	50·15
Public Administration and Liberal Arts.	VI	Public Force	3·14	2·37	3·22
	VII	Public Administration	1·97	·88	1·19
	VIII	Profession and Liberal Arts.	1·21	1·63	2·21
	IX	Persons living principally on their income.	·19	·21	·29
		Total ..	6·52	5·08	6·90
Miscellaneous ...	X	Domestic Service ...	7·04	3·05	4·15
	XI	Insufficiently described occupations.	20·80	6·78	9·19
	XII	Unproductive	·35	·57	·78
		Total ...	28·19	10·41	14·12

less than 20 per cent. the proportion of Hindus supported by these occupations is over 40 per cent. and in the case of non-indigenous Mahomedans it rises to over 50 per cent. Perhaps the best method of exhibiting the contrast between the distribution of the general population of the province and the Indian population, between agricultural and non-agricultural occupations, is to be seen in the marginal statement. The percentages are almost reversed. While the agriculturalists of the whole province are roughly in the proportion of 70 to 30, for the Hindu population the proportion is 24 to 76 and for the Mahomedans (excluding Akyab) it is 27 to 72.

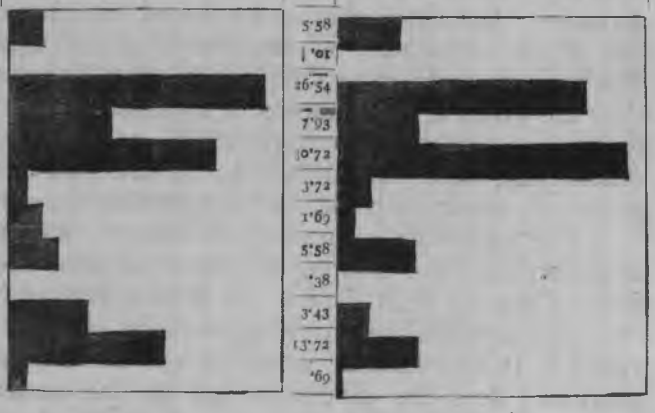
Agricultural and non-agricultural occupations.

	Province.	Hindus.	Mahomedans.
Pasture and Agriculture.	70·37	23·48	27·07
Remaining occupations.	29·63	76·52	72·93

352. Population of Cities by Occupations.—

Diagram showing distribution of the population of cities by occupations.

Sub-class.	Designation.	Rangoon. Percentage.	Rangoon. Proportional representation.	Mandalay. Percentage.	Mandalay. Proportional representation.
I	Exploitation of the surface of the earth	3·12		5·58	
II	Extraction of minerals	·00		·01	
III	Industry	27·27		26·54	
IV	Transport	10·54		7·93	
V	Trade	21·55		10·72	
VI	Public Force	2·23		3·72	
VII	Public Administration	4·10		1·69	
VIII	Professions and Liberal Arts	4·62		5·58	
IX	Persons living on their income	·44		·38	
X	Domestic service	7·85		3·43	
XI	Insufficiently described occupations	16·75		13·72	
XII	Unproductive	1·55		·69	



It is natural that the distribution of the population of cities should differ widely from that of the province as a whole. Agriculture loses its predominance, and industry, trade, domestic service, transport, the professions and liberal arts, and the public force and administration, each assume a greater measure of importance in city life. The above diagram illustrates the proportions of the population supported by each of the twelve sub-classes of occupations for Rangoon and Mandalay. Among their characteristic differences is the greater dependence of Rangoon on industry and of Mandalay on trade; and the greater supply of domestic service in Rangoon. The high percentage of insufficiently described occupations is a feature of city industry, with its large numbers of coolies ready to turn their hands to any class of manual labour and the comparatively large number of occupations not to be described in a simple and single designation.

353. Urban Industries.—There has been no separate statistical analysis of the occupations followed by the populations of the towns of the province. In a few towns, Moulmein, Bassein, Akyab, Insein, Syriam, the occupational distribution is on lines similar to that of Rangoon, with "Industry" supporting a greater population than "Trade". But for the majority of the towns of the province, the distribution would follow that of Mandalay rather than that of Rangoon, "Trade" being of greater importance than "Industry". Generally, the distribution of occupations in towns would show a much larger percentage of population in the first order "Pasture and Agriculture" and consequently in the first sub-class, than is to be found in the cities of Rangoon or Mandalay, while in the remaining eleven sub-classes the distribution would approximate rather to the percentages for the whole province (as illustrated in the diagram at the head of paragraph 348) than to the percentages for Rangoon or Mandalay illustrated in diagram at the head of paragraph 351. The analysis conducted in paragraphs 349 and 350 demonstrates that a disproportionate amount of Indian labour is devoted to those occupations of "Industry", "Transport", "Trade", "Public Administration and Liberal Arts" and "Miscellaneous", which form a distinguishing feature of city and urban life. The Burman, having the opportunity

given by the rapid expansion of the province of selecting between agricultural and urban industry, has chosen the former to a great extent, leaving the immigrant Indian a free field in a large number of urban industries.

354. Burma Village Industries.—A description of the intimate industrial organization of a Burmese village supplements the conception of the nature of the indigenous industries of the province to a greater extent than is to be gathered from a perusal of its general statistics of employment. Mr. Furnival, C.S., Settlement Officer, Myingyan, has contributed the following account of the industries of an Upper Burma village, containing a suggestion that the difference between the economic organization of India and Burma is due to the high social status of women in Burma.

* * * * *

The fallacies underlying the theories of Sir Henry Maine as to Indian Village Communities have been swept away; the facts remain. The village is the industrial unit, "self-sufficing and economically independent to a degree which surprises those who are familiar with the plexus of interests by which the different provinces of European countries are bound together." There are found almost invariably three classes, the landlords, the cultivators and the village artizans and servants. But these classes are bound together by the solidarity of their interests, the whole community is dependent on the agricultural prosperity of the unit. The artizans and servants do not receive payment for each act of service, but they are given at each harvest a specified measure of grain as a remuneration for the service performed throughout the year, blacksmith, carpenter, leather-curer, washerman, waterman, potter, barber are paid in kind when the harvest has been gathered; even the priest and beggar then receive their portion.

The economic structure of Mongol Society has received less adequate attention, and the striking contrast between India and Burma may therefore be deemed worthy of attention. In both cases the fundamental interest is agriculture, and between the purely agricultural classes the contrast is not immediately visible. It is otherwise however with the organization of the non-agricultural interests; here the difference lies on the surface. And closer scrutiny of the agricultural community shows that in this also the difference is reflected. The resemblance is superficial, merely the result of analogous conditions.

The absence of watermen and washermen from a Burman village seems but a trivial matter: they may not have differentiated out from the primitive self sufficing individual: their absence may be due to some accident of correlated variation in development. It is possible however that this apparent triviality may be of deep significance. Some chance heard scrap of intimate conversation at the well side, a glimpse of silk flashing in the sun, and a complexion delicately powdered suggest a solution of the problem. The waterman is not wanted because the women fetch the water; wives and daughters, and particularly daughters, find at the village well or tank an opportunity for social reunion, for gossip and for other things, while in a country where open air bathing is a rule, and mixed bathing not prohibited, the absence of the washerman could without rashness be prognosticated. Whether the absence of the barber can thus be accounted for is one of the mysteries of the zenana; certainly in Burma if the husband has a fancy to go bald headed, you may see his wife bending over him anxiously as she scrapes away at a half shorn pate.

The women however cannot perform the duties of smith, carpenter and potter; and these are necessary as in India. But they are not restricted to the village. In one village there will be a colony of blacksmiths, in another of carpenters, in another of cart-makers, in another of wheel-wrights—all these are different occupations—in another of potters, and in another basket-makers. Each trade will serve the surrounding country over a distance varying with the nature of their occupation and the reputation of their wares. Portability and demand are the most important factors; villages where pottery is carried on are comparatively numerous, pots are bulky and do not travel well, while some clay more or less suitable is everywhere to be obtained; one man can carry a load of knives for forty miles, and a single village may supply the greater part of the district.

One or two examples will explain the organization better than pages of description. Kuywa is a village near the high road eight miles from the trading centre of Nyaungu on the Irrawaddy river; here pottery is carried on. Chaukkan

is a village two miles to the south-east, and lying further both from the high road and from Nyaungu; here they carry on the work of blacksmiths. Kabyu is 16 miles due east of Chaukkan, but over twenty by the tortuous jungle cart-tract. Chaukkan obtains its pots from Kuywa and its cart-wheels from Kabyu, wheels of inferior quality however are obtained from Nyaungu, while the bodies of the carts are made in Chaukkan and sold to Kuywa, as are the heavy knives and other metal implements of agriculture. Kuywa also obtains its cart-wheels from Kabyu, while both villages go some ten miles to the east for the plaited trays which are used in winnowing, and for one particular variety both villages travel nearly twenty miles. Between Kabyu and these two villages the cart-wheels are the only bond of trade, but at Kabyu there is a similar variety in the source of their domestic implements. Pots and coarse iron work are obtained from a village ten miles off on the north-east, knives from a village forty miles away near the centre where they sell their agricultural produce, the bodies of the carts come from a village seven or eight miles to the south-west.

In other occupations the same localisation exists; in one village there are carpenters, in another scribes, in another a considerable income is earned by dyeing the yellow garments of the priesthood. Where the occupation is complex the different stages may be divided amongst different villages; this is the case with the lacquer work of Pagan, the baskets being made in one village rough lacquered elsewhere, then the design traced in another village, the only final stage conducted in Pagan itself.

I have suggested above that the social status of women in Burma affords a possible solution of the difference between the economic organisation of Burma and India. The connection between the two is not however evident until the composition of the village is considered. Most of the villagers are cultivators, and even some of the above occupations are only conducted in the spare time and vacant seasons of agriculturalists. An enquiry into the birthplace of the cultivators of the village show that a large proportion have no hereditary connection with the village, and that among those who are hereditary occupants the large majority have only inherited their position on the mother's side. The village which I propose to consider is old established, it is mentioned among the nineteen villages which formed the traditional nucleus of the empire of Pagan, and may, I believe, be considered typical of the non-official Upper Burma village, a non-official village being one in which there were no hereditary service dues. In a single survey unit, enclosing an area of about one square mile, there are 28 occupants cultivating 49 holdings. Most of these cultivate the land on mortgage from the owner, mortgage being a customary form of tenancy. As regards one of these no information was obtained; and there remain therefore 27 people cultivating 48 holdings. As regards ten families, occupying 16 holdings, both husband and wife were immigrants from another village, while two holdings are occupied by the son of one of these immigrants. Of the remainder, 9 holdings were cultivated personally by the headman and his co-heirs, who own beside the area cultivated by them, two-thirds of the land cultivated by other people; but except for this single hereditary land owning family, only two people, occupying five holdings, can claim on the side of both parents hereditary residence in the village, while eight people occupying 16 holdings can claim hereditary occupation on the same land on the female side. In not a single case is there a claim to hereditary residence on the male side only.

It is not claimed that this enquiry is exhaustive, it does nothing more than indicate a line of research. But it is difficult to resist the provisional conclusion that there has been at work a custom by which the males of every generation set forth from their native village, and took up their residence where they found their wives. This would lead so naturally to the plexus of economic interests above described that it can only be regarded as probable that the one is a sequence of the other.

* * * * *

In Lower Burma, the localisation of industry is carried to an even further extent than in Upper Burma. In the numerous new villages founded during the colonisation of the delta districts the whole of the energies of the inhabitants have been devoted to extensions of cultivation, and general requirements have necessarily been obtained from the older villages and small towns established prior to the rapid influx of population. The excellent water communication existing renders the

carriage of even bulky communities over long distances a comparatively easy matter, and tends to facilitate the concentration of industries in the villages where they have been long established. The comparative proximity to Rangoon and the ease with which European articles can be obtained, have also tended to retard the growth of special village industries in the more recently founded villages of Lower Burma and to perpetuate their dependence on the larger and older villages for their requirements.

The industrial system thus described, with a comparatively high degree of specialization and division of labour, differs markedly from that to be found in India generally. It may be contrasted with that existing in the Punjab and Bengal as described in their Census Reports for 1901.

As for the former :—

"Under the old social system of these provinces, every tract, and to a certain extent, every village, was a self-contained economic unit, in which were produced the simple manufactures required by the community. This system facilitated the development of a caste system based on hereditary occupation. Below the land-holding tribe, and subject to its authority, were the various sacerdotal, artizan and menial classes, which have more or less crystallized into castes and these castes were, economically and socially, closely dependent on the dominent tribes who owned the land and controlled its allotment. These castes were all more or less servile, and were paid by a share of the produce of the soil, or, more rarely, by fixed allowances in kind, cash payments being probably a very recent innovation.

"Thus each tribe, at least, if not each village, was, economically, a water-tight compartment, self-contained and independent of the outside world for the necessaries of life, but for commodities not obtainable within its own borders it depended on foreign sources of supply and on the outside castes such as the Labanas, or salt-traders, who formed no part of the tribal or village community. Thus there have never arisen in this part of India, any great industries. Foreign trade, necessarily confined to the few large towns, was limited to superfluities or luxuries, and such industries as existed were necessarily on a small scale. Further, inasmuch as each community was absolutely independent, as far as necessaries are concerned, the few industries which supplied luxuries never became firmly rooted and have succumbed at the first breath of competition. Everywhere in our official literature one reads of struggling industries in the small towns, though fostered by intermittent official encouragement, dying of inanition. The causes seem obvious enough. Everything essential can be, and for the most is, made in the village or locality, so that there never is a demand for imported articles of ordinary make, those made by the village artizans, however inferior in quality, satisfying all requirements."

In Bengal :—

"The duties and remuneration of each group are fixed by custom, and the caste rules strictly prohibit a man from entering into competition with another of the same caste. In many districts, the barber, washerman, blacksmith, etc., each has his own defined circle (brit or shashan) within which he works, and no one else may attempt to filch his customers, or jajmans, from him on pain of severe punishment at the hands of the caste committee. The exclusive right to employment by the people in the circle constituting a man's brit is often so well-established, that it is regarded as hereditable property, and, with Mahomedans is often granted as dower. The method of payment often consists of a fixed sum for regular services, *e.g.*, to the blacksmith for keeping the plough in order, to the barber for shaving and hair-cutting, to the leather-dresser for supplying country shoes and leather straps for plough-yokes and the like, and special fee on particular occasions, such as to the village midwife, who is usually the wife of the cobbler or drummer, for the delivery of a child, and to the barber on the occasion of marriages."

Thus, owing partly to the absence of any restraining influence of the nature of caste, and partly to the higher social position of women in Burma, the Burmese village is far less a purely self-contained industrial unit than the Indian village. It is a somewhat paradoxical result that the industrial versatility of the Burman tends to a local specialization of industry. And yet the result on examination is natural. Among less advanced communities, rigid and definite boundaries between separate industries leads to the establishment of whole-time hereditary craftsmen and artizans in each residential unit. The absence of such hard and rigid lines of demarcation, coupled with a high degree of dual occupation, leads to specialization by localities rather than by individuals. Each village having only part-time labour available for its arts and crafts, finds it more economical to specialize in a small number of directions, rather than attempt with inadequate labour resources to cover the whole range of village industry. The remarkable agricultural development of the province during the past thirty years has tended to perpetuate this system. The more the agricultural development of the country demanded labour, the less possibility was there of full-time labour being available for setting up a complete and self-sufficing provision of arts and crafts in each residential unit. It is obvious that the village industries in Burma, not being so essential, and personal, and local, as the village industries

India, are in danger of European competition to a much greater extent than those of India. The force of public opinion which in India prevents a villager from taking a living from his neighbour by using imported articles, scarcely exists in Burma. It is quite a different matter to buy an article of European manufacture when the person supplying similiar articles lives in the same village, and when he lives in a village miles away. One of the most striking features of Burmese village life is the extent to which imported commodities are used in preference to those of local manufacture.

355. Distribution of occupations in each natural division.—

Sub-class.		Percentage of population supported.				
No.	Designation.	Central Basin.	Deltaic Plains.	Northern Hill Districts.	Coast Ranges.	Specially Administered Territories.
1	2	3	4	5	6	7
I	Exploitation of the surface of the earth.	68·7	71·3	72·5	75·8	76·3
II	Extraction of minerals.	·1	...	·6	·2	·1
III	Industry	8·5	5·9	4·2	5·5	6·4
IV	Transport	3·5	3·4	4·0	3·1	2·1
V	Trade	9·9	11·4	9·2	7·8	8·6
VI	Public Force ...	·8	·5	1·6	·5	·5
VII	Public Administration.	·8	·9	1·0	·7	1·0
VIII	Professions and Liberal Arts.	2·5	1·9	2·4	1·7	2·2
IX	Persons living on income.	...	·1	...	·1	...
X	Domestic Service ...	·6	·9	·7	·6	·5
XI	Insufficiently described.	4·1	3·5	3·6	3·8	2·1
XII	Unproductive ...	·4	·2	·2	·2	·2

There is nothing striking in an analysis of the distribution of occupations over the five natural divisions of the province. Agriculture causes the occupations in the first sub-class, concerning occupations devoted to the exploitation of the surface of the earth, to predominate in each division, the percentage of the total population ranging from 68·7 in the Central Basin to 76·3 in the Specially Administered Territories. The Northern Hill Districts and the Coast Ranges supply the largest percentages of population supported by the extraction of minerals, though if actual numbers had been taken, the order of precedence would have been considerably modified. The home textile industries, and such village industries as the preparation of food and dress, give the Central Basin and the Specially Administered Territories an unanticipated precedence in "Industry." The percentages for transport are paradoxical, the percentage of population supported by transport industries being greatest in the Northern Hill Districts. This can be explained by the fact that communications are so bad that it needs a larger percentage of the population to provide the existing inadequate facilities of transport, than suffices to provide the immeasurably superior transport of the more advanced portions of the province. Trade naturally is at its greatest in the wealthy districts of the Deltaic plains, but the range of the percentages from 7·8 to 11·4 is not wide. The somewhat surprising distribution of the percentages of the persons supported by the professions and liberal arts has a rational explanation. If the comparison had been for actual numbers instead of for percentages then the supremacy of the districts of the Central Basin and the Deltaic plains would have been obvious. Subsidiary Table II gives a further analysis for a few of the orders and groups of occupations, and Subsidiary Table III, analyses the various aspects of the distribution of the Agricultural, Industrial, Commercial and Professional population for the cities and for each district and natural division of the province.

356. Workers and Dependents.—One of the most difficult questions to decide is the boundary line to be drawn between workers and dependents. The general instructions issued have already been quoted. These were supplemented by additional instructions framed on the examination of the schedules prepared in a preliminary experimental enumeration. It was impossible to frame

specific rules as to the age at which children assisting their parents in their occupation ceased to be dependents and become workers. In the case of agriculture, the general rule followed was that if the assistance of a wife or a member of the cultivator's family was sufficient to prevent recourse to hired labour, which would otherwise have been necessary, then the person assisting should be shown as a worker and not as a dependent. Many references were made in the case of domestic industries such as cotton and silk weaving. In such cases it was laid down that the payment of wages was to be the determining criterion and that weaving and sewing for household use only should not entitle the persons so occupied to be entered as a worker. The insistence of wages as a criterion of a worker in the textile trades, while it was dispensed with in the case of agricultural operations, had a rather disturbing effect on the returns. Members of families who assisted in agriculture and also performed household weaving, in both cases without specific wages, were invariably entered as agricultural workers. A large part of the reduction in the number of textile workers as compared with the number in 1901 was due to the imposition of the wages test in the case of non-agricultural occupations.

Class.	Sub-class. No.	Sub-class. Designation.	Percentage of Workers.	Percentage of Dependents.
Production of raw materials.	I	Exploitation of the surface of the earth.	55	45
	II	Extraction of minerals.	57	43
		Total ...	55	45
Preparation and supply of material substances.	III	Industry	58	42
	IV	Transport	37	43
	V	Trade	57	43
		Total ...	57	43
Public Administration and Liberal Arts.	VI	Public Force ...	53	47
	VII	Public Administration.	39	61
	VIII	Professions and Liberal Arts.	56	44
	IX	Independent ...	38	62
		Total ...	52	48
Miscellaneous ...	X	Domestic	69	31
	XI	Unspecified ...	60	40
	XII	Unproductive ..	76	24
		Total ...	62	38
Whole Province			56	44

The relative proportions of workers and dependents in India and Burma reflects the difference between their social and industrial conditions. In India among the more respectable classes of both Hindus and Mahomedans, it is not considered proper for a woman to work, and there is a tendency to show her as a dependent even though she may, as a matter of fact, be a worker. In Burma there is no such prejudice against women being considered workers, and consequently the workers are in excess of the dependents in the proportion of 56 to 44, whereas in India they are in a minority in the proportion of 47 to 53.

Proportions of workers and dependents.	Workers.	Dependents.
India (1901)	47	53
Burma (1911)	56	44

It is natural that the largest number of dependents should be found among persons living on their income and in the security of occupation in the public administration. The percentages of 39 for workers and 61 for dependents is identical with those for government workers in India in 1901. Apart from these two sub-classes the workers in all the remaining classes and sub-classes outnumber the dependents. There are of course several orders and groups where the dependents exceed the workers but these are exceptions and the general rule is for the workers to be the more numerous. In the largest group "Pasture and Agriculture" the workers comprise 55 per cent. and the dependents 45 per cent., nearly reversing the percentages in India in 1901 for the same group, with 46 per cent. of workers and 54 per cent. of dependents. One of the causes of the low proportions of dependents to workers in the sub-classes of "Industry", "Commerce," "Trade" and the domestic and unspecified industries, is the higher proportion of Indians participating in these sub-classes of employments. Being largely immigrants, they have not the same established family life as the indigenous population, and the number of dependents amongst them is consequently reduced.

357. Occupations of Females.—The difference between social and industrial conditions in India and in Burma were, it was noticed, reflected in their respective proportions of dependents to actual workers. It is still more strikingly apparent in the proportions of male and female workers. In India in 1901 there were 450 females to every 1,000 males recorded as being actual workers, in Burma the proportion recorded at the census of 1911 is 764 females to every 1,000 males. There is a wide range of variation among the 12 sub-classes of occupations rising in the case of trading occupations to 1,167 females per thousand males. It was to be anticipated that the proportion of female workers would be low in occupations connected with public administration, transport and the professions and liberal arts. Also, the conditions of domestic service in India are so widely different from those to be found in England that the low proportion of 230 female domestics to every thousand males is easily understood. Among the orders of occupations, and still more among the groups, the variations are even wider than among the sub-classes. The principal orders and groups in which the females out-number the males are given in the second marginal statement. The weaving and spinning of silk and cotton are largely domestic industries, generally performed by the female members of the agricultural family. The social position of the Burmese woman is reflected in the large share of the trading occupations which fall to their lot. Excluding groups of imperfectly described occupations there are nine occupational groups which support more than 20,000 female workers. These are given in the third marginal statement. The low proportion of females in Group 56, "Rice pounders and huskers and flour grinders" is due to the inclusion of the operations of rice mills in this group. This occupation is partly a domestic and partly a mill industry. In the former case, females predominate, in the latter, the workers are almost exclusively males.

Sub-class.		Number of females per 1,000 males.
No.	Designation.	
I	Exploitation of the surface of the earth.	822
II	Extraction of minerals ...	369
III	Industry ...	883
IV	Transport ...	242
V	Trade ...	1,167
VI	Public Force ...	42
VII	Public Administration ...	121
VIII	Professions and Liberal Arts.	191
IX	Independent ...	227
X	Domestic Service ...	230
XI	Insufficiently described ...	427
XII	Unproductive ...	609
	Whole Province ...	764

Order.	Group.	Designation.	Females per 1,000 males.
1	...	Income from rent of agricultural land.	1,551
6	...	Textiles ...	11,325
...	22	Cotton spinning, sizing and weaving.	17,583
...	27	Silk spinners and weavers	3,484
...	38	Basket makers, etc. ...	1,066
...	47	Potters and earthern pipe and bowl makers.	2,048
30	...	Trade in pottery ...	1,560
33	...	Trade in food stuffs ...	1,495
...	116	Fish dealers ...	1,724
...	120	Vegetable sellers ...	1,623
...	122	Tobacco, opium, etc. sellers.	2,646
41	...	Trade of other sorts ...	1,216
...	155	Midwives, compounders, nurses, etc.	1,398

Principal occupations employing female labour.			
Group.	Occupation.	Female workers.	
		Actual Number.	Per 1,000 males.
2	Cultivators ...	1,559,824	839
4	Field labourers ...	395,944	767
22	Cotton spinners and weavers.	91,766	17,583
1	Rent Receivers ...	68,997	1,151
120	Vegetable sellers, etc.	41,963	1,623
116	Fish dealers ...	38,655	1,724
56	Rice pounders, etc.	28,745	668
14	Fishing ...	27,676	587
108	Trade in textiles ...	22,811	1,086

358. Special Industrial Census.—In order to remedy the defects of the ordinary census record of employments, a special industrial census was effected in conjunction with, and supplementary to, the main census enumeration. This was effected by the aid of the owners, agents and managers of mines, factories, works, mills and plantations, in which at least 20 persons were employed. Lists of all such industrial units were first prepared in district offices. Special schedules, devised for the entry of the required information were then distributed to the managers, for record on the date of the census. In addition to these returns of persons employed in private and joint stock undertakings, supplementary returns were also obtained of persons employed on Railways, and in the Post, Telegraph and Irrigation departments of Government service. The first returns of the Special Industrial Census were in some respects defective, and when the figures were closely

examined some obvious errors were detected, principally in the returns for rubber and petroleum extraction. These were rectified in consultation with the district officers concerned. The results have been tabulated in Imperial Table XV-E, Parts I to IV and in Subsidiary Tables X (*a*), X (*b*), X (*c*) and X (*d*).

359. Large Industries.—The Special Industrial Census and the Departmental and Railway returns of the persons employed on the date of the census afford the material for investigating the extent to which the introduction of European capital and industrial methods have influenced the occupations of the people. Confining consideration for the present to the industrial returns, apart from those concerning the railway and Government departments, Parts III and IV of Imperial Table XV-E illustrate the extent to which large industries are the fruit of European methods or management. Altogether there are 350 industrial units which have been reported as employing 20 or more persons, giving employment on the date of the census to 78,677 persons, comprising 75,337 males and 3,340 females. Of this total 30,059 are concerned in food industries, 29,872 of these being employed in rice milling operations. Chemical industries form the second largest industrial group with 11,150 workers. Nearly the whole of the workers in the chemical industries, to the number of 10,747, are engaged in the various operations of petroleum refining. The next largest group of industries is that connected with the conversion of timber, which employs 9,833 persons. This is closely followed by Mines and Petroleum Wells with 9,006 workers. Transport construction, which employs 4,907 persons, comprises the subsidiary workshops and dock-yards of the Government, and the railway and steamer companies. The growing of special products on a large scale is confined to rubber, an industry just emerging from infancy which returned 4,047 workers. The remainder of the industries are of minor importance and do not call for separate notice.

Large industries (Actual Workers).

Industry.	Number of industrial units.	Persons employed.			Average number of workers per unit.
		Males.	Females.	Total.	
Growing of special products.	10	3,896	151	4,047	405
Mines and Petroleum wells.	38	8,755	251	9,006	237
Quarries of hard rock.	14	3,963	162	4,125	295
Textiles	6	713	176	889	148
Wood	82	9,523	310	9,833	120
Metal	11	2,427	59	2,486	226
Glass and Earthenware.	2	153	...	153	76
Chemical	12	11,101	49	11,150	929
Food	155	27,994	2,065	30,059	194
Transport construction.	10	4,799	108	4,907	491
Production and transmission of physical force.	2	267	...	267	133
Printing	8	1,746	9	1,755	219
Total ...	350	75,337	3,340	78,677	225

Principal large industries.

Industry.	No.	European management or direction.
Rice mills	152	47
Saw mills	82	25
Petroleum wells and refineries.	26	20
Tin and wolfram mines	17	10

Except in one or two directions the tendency towards the concentration of industry into large undertakings has operated to a very slight extent in Burma. The only directions in which the large industry has as yet established itself in purely industrial undertakings, beyond experimental and occasional instances are,—

(i) Rice milling.
(ii) Saw milling.
(iii) The extraction and refining of petroleum.
(iv) The Railway and the Irrawaddy Flotilla Steamer Companies.

There is considerable promise for the future in the general mineral wealth of the province and also in its possibilities in the direction of rubber cultivation, but at the date of the census, these industries were in a preliminary stage of development. Even in 1911, it cannot be said of Burma, as was said of India in the Census Report for 1901, that there are many indications that India is entering on a period of great industrial activity. The activities of Burma have been in the

main, devoted to agricultural rather than to industrial expansion. There has recently been a check in the rate of agricultural expansion, but it is impossible to determine whether this will entail a more rapid industrial expansion in the future.

Industry.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Postal Department	47	2,845	2,892
Telegraph Department.	336	1,971	2,307
Irrigation Branch, Public Works Department.	29	14,509	14,538
Burma Railways ...	783	27,427	28,210
Total ...	1,195	46,752	47,947

The general results of the returns from the Postal and Telegraph Departments, the Irrigation Branch of the Public Works Department and the Burma Railways show that there are 47,947 persons engaged in these public or quasi-public services. Of these 1,195 are Europeans and Anglo-Indians and 46,752 are Indians and Burmans.

AGRICULTURAL OPERATIONS.

360. **Pasture and Agriculture (Order I).**—"Pasture and Agriculture" combined form the first order of the first sub-class of Class A in the scheme of occupational classification. The marginal statement from the title page of Imperial Table XV-A-II of the Statistical Volume (to which reference must be made for further information in this respect) indicates its position. It is exceptional in being subdivided into five sub-orders, none of the remaining fifty-four orders of occupations being so subdivided. It is further subdivided into thirteen groups. It corresponds generally with Class B of the classification of 1901, but for the purpose of comparison it is necessary to have recourse to the adjusted figures of Subsidiary Table VII. The following statement gives the comparative numbers of the population supported by this main occupation in the two years of enumeration:—

Class.	Sub-class.	Order.		Groups.
		Number.	Designation.	
A Production of Raw Materials.	I. Exploitation of the surface of the earth.	I	Pasture and Agriculture.	1 to 13
		II	Fishing and Hunting.	14 & 15
	II. Extraction of minerals.	III	Mines	16 & 17
		IV	Quarries of hard rocks.	18
		V	Salt, etc.	19 & 20

Sub-order.	Group.	Occupation.	1911.	1901.	Increase or Decrease.
1(*a*)		**Ordinary cultivation**	8,083,712	6,460,934	+ 1,622,778
	1	Income from rent of Agricultural land.	2,20,485	713,508	— 4,93,023
	2	Ordinary cultivators	6,215,154	1,420,896	+ 4,794,258
	3	Agents, Managers of landed estates, clerks, rent-collectors, etc.	123	3,658	— 3,535
	4	Farm servants and field labourers ...	1,467,950	4,322,872	— 2,674,922
1(*b*)		**Growers of special products and market gardening.**	238,511	385,528	— 147,017
	5	Tea, coffee, cinchona, indigo and rubber plantation.	105	21,120	— 21,015
	6	Fruit, flower, vegetable, betel-vine areca nuts, etc., growers.	238,406	364,408	— 126,002
1(*c*)		**Forestry**	42,765	36,345	+ 6,420
	7	Forest officers, rangers, guards, etc. ...	5,116	4,144	+ 972
	8	Wood cutters, firewood, lac, cutch and rubber collectors, etc.	37,649	32,201	+ 5,448
1(*d*)		**Raising of farm stock**	105,944	67,527	+ 38,417
	9	Cattle and buffalo breeders and keepers.	2,645	5,900	— 3,255
	10	Sheep, goat and pig breeders ...	12,232	3,403	+ 8,829
	11	Breeders of other animals (horses, mules, etc.)	35	473	— 438
	12	Herdsmen, shepherd, goat-herds, etc.	91,032	57,751	+ 33,281
1(*e*)	13	**Raising of small animals** (birds, bees, etc.)	1,459	25	+ 1,434
Order I ...		**Total, Pasture and Agriculture** ...	8,472,391	6,950,359	+ 1,522,032

Postponing for the time being, an examination into the remarkable discrepancies in the figures for 1901 and 1911, it is seen that the population dependent on pastoral and agricultural pursuits now numbers 8,472,391, or 70·37 per cent. of the population. In 1901 the numbers were 6,950,359 and 67·06 per cent. This increase in the percentage of the agricultural and pastoral population is the natural resultant of the rapid extensions of cultivation that took place in the first portion of the decade 1901—1911. Another manifestation of the same phenomenon has been seen in the movement of the indigenous population from the town to the country in Chapter I of this Report.

361. Ordinary Cultivation.—The occupations comprised in the first order, that of pasture and agriculture, are too unwieldy to form the basis of detailed discussion. It is subdivided into five sub-orders, the first of which, *viz.*, ordinary cultivation, maintains 8,083,712 persons or 67·14 per cent. of the population. This sub-order, on reference to the marginal statement in the preceding paragraph, is seen to comprise four groups, roughly corresponding to landlords, cultivators, estate agents and field labourers. Although there is a general harmony in the total figures for the sub-order for 1901 and 1911 respectively, there are large discrepancies between the figures for each group for the two years. The decreases in groups 1, 3 and 4 are due to different principles of classification, or rather to different applications of the principles of classification. Mr. Lowis stated that the classification adopted in 1901 was not suited to the province, and indeed the terms "Rent Receivers" and "Rent Payers", the designations of two of the principal groups, were particularly unsuited to a province where cultivating ownership is the ideal of the Local Government. Profiting by the experience gained in 1901, the term "Rent Payer" was discarded, and the term "Ordinary Cultivator" substituted in its place. The discrepancies between the figures for 1901 and 1911, so far as these four occupations are concerned, are principally due to the unsuitable classification adopted in the former year, which led to the enhancement of the figures for landlords, managers and labourers at the expense of those for ordinary cultivators.

362. Landlords.—Mr. Lowis suggests that the total of 286,182 persons classed as rent receivers must have contained numbers who were actual cultivators.

Income from rent of agricultural land.		
Year.	Landlords Census Figures.	Acreage occupied by non-Agriculturalists.
1901 ...	286,182	1,800,000
1911 ...	128,918	2,477,447

This is borne out by the marginal statement comparing the number of "Rent Receivers" with the acreage occupied by non-Agriculturalists in the years 1901 and 1911 respectively. As the Supplementary Survey did not extend throughout Upper Burma in 1901, the acreage for that year has been estimated from the figures available. The area of between 6 and 7 acres per non-cultivating landlord in 1901 is not so convincing as the area of between 19 and 20 acres per non-cultivating landlord in 1911. In view of the proposals for agrarian legislation in the directions of restriction of land alienation, and protection of tenants, it is important that there should be some knowledge of the number of non-cultivating owners of agricultural land in the province. Knowing the numerous possibilities of error (one of which will be immediately considered) in such a calculation, it would be rash to declare that the number recorded (128,918) can claim any high degree of exactitude. It possesses however a fair approach to accuracy, as is demonstrated by its harmony with the administrative statistics of the acreage owned by this class of landlords. An analysis of the composition of the race or nationality of the landlord class is not feasible, but an analysis by religions serves almost the same purpose. Buddhists form 84 per cent. of the landlords and Animists over 10 per cent. The percentages of ·9 and 3·2 only for landlords of the Hindu and Mahomedan religions do not seem to bear out the impression that a large portion of the land in Burma is passing into Indian hands. The second marginal statement is however misleading in that it does not allow for the ownership of land by persons whose primary occupation is money-lending. If the proportions of bankers and money-lenders be examined, there is seen to be a percentage of nearly 28 per cent.

Percentage of population of landlord class by religions.	
Buddhist	84·0
Animist	10·3
Hindu	·9
Mahomedan	3·2
Christian	1·6

Percentage of population supported by occupations of banking and money-lending, etc., by religions.	
Buddhist	63·7
Animist	1·2
Hindu	18·2
Mahomedan	9·7
Christian	6·5
Others	·7

the persons following this occupation who belong to Indian races. A large portion of the land held and controlled by Indians is owned by persons entered under the designation "money lender," rather than as living on the rent of agricultural land. The two marginal statements just given are unsatisfactory in two respects. They give percentages only instead of actual figures, and they include dependants as well as the actual workers or principals in the occupations. A third statement is given shewing the actual numbers of principals, or workers, of the landlord and the banking and money-lending classes in the province. So far as the returns are to be relied on, they give totals of 4,666 Hindus and 6,845 Mahomedans, either directly owning land, or controlling land by means of advancing money on mortgage.

Actual numbers of principals or workers of the landlord and banking or money-lending classes.

Religions.	Landlords.	Bankers and money-lenders.
Buddhist ...	101,282	4,481
Animist ...	17,278	71
Hindu ...	1,886	2,780
Mahomedan ...	5,675	1,170
Christian ...	2,766	565
Others ...	31	37
Total ...	128,918	9,104

363. **Cultivators.**—It is unfortunate that the terms "Ordinary Cultivation" and "Ordinary Cultivators" should have been used as the designations for two distinct items in the scheme of classification. The former is the term denoting Sub-order 1(*a*), and the latter denotes Group 2, one of the four groups of sub-order 1(*a*). The former comprises all persons who get their living through cultivation, including landlords, managers and labourers. The latter includes actual cultivators only. The want of distinction in the terms is unfortunate, but it was noticed too late to enable a rectification to be attempted. Attention having been drawn to the possibility of confusion owing to the use of almost identical terms to denote different categories, it is hoped that the inconvenience resulting therefrom will be avoided.

Despite the lack of success experienced in 1901 in classifying agricultural operations, the experiment has been repeated in 1911 with the result shewn in the marginal statement. The second of the occupational groups has been divided into three sub-groups to differentiate between cultivating owners, tenants and *taungya* cultivators. The population supported by the occupations of this group is 6,215,154, or 51·62 of the total population of the province. The number of actual workers is 3,418,456 or 28·31 of the population. It must be noted that if the wife, or any adult member, assists the head of the family materially in the work of cultivation, such person has been entered as a worker in the same category as the head of the family. Thus, if a cultivating owner is assisted by his wife and two sons, they have been recorded as four cultivating owners in the census returns. Similarly, if a tenant is assisted to the same extent, there would be four persons entered in the returns under the category of tenant. Disregarding for the moment the returns for the separate sub-groups, it is seen that 87·4 per cent. of the population supported by ordinary cultivation are Buddhists. Animists and Christians with 7·7 and 1·9 per cent. respectively, are mainly members of indigenous races. There remains therefore only a bare 3 per cent. (2·3 Mahomedan and ·7 Hindu) of the population supported by cultivation belonging to the Indian races. Even this meagre percentage rather overestimates the true proportions, because the percentage of Mahomedans is enhanced by a large indigenous Mahomedan population in Akyab District, which should be excluded in calculating a percentage for Indians only. If this exclusion be effected the proportion of Mahomedans falls to ·5 per cent, and of Indians to 1·2 per cent. of the population supported by cultivation. The concentration of Indians in towns, and their preference for urban to rural industries, have already been considered in paragraph 36 of Chapter I, and paragraph 77 of Chapter IV of this Report, dealing with the "Density of the Population" and with "Birth place" respectively. No analysis of occupation by religions was prepared in 1901, so it is impossible to compare the advances made by the Hindu and Mahomedan populations supported by cultivation in the past ten years. But the absolute numbers of workers and dependents, 42,845 Hindus and 143,136 Mahomedans (or 32,538,

Cultivators.	Workers.	Dependants.
Cultivating owners land.	2,121,273	1,689,337
Tenants	829,951	769,380
Taungya cultivators.	467,232	337,981
Total ...	3,418,456	2,796,698

Percentage of cultivators by religions.

Buddhist	87·4
Animist	7·7
Hindu	·7
Mahomedan	2·3
Mahomedan (Akyab excluded).	·5
Christian	1·9

Mahomedans if Akyab be excluded) demonstrate that they have taken but a small share in the extension of cultivation from 8,452,202 acres in 1901 to 15,823,057 acres in 1911. They form but a trifling proportion of the increase in the number of cultivators in the decade. Subsidiary Table IX shews that the proportion of Hindu cultivators is only 10·99 per cent. of the Hindus of the province, while 34·02 per cent. of its Mahomedans (or 13·42 per cent. if Akyab be excluded)are cultivators. These figures justify the conclusion that it is the urban industries of Burma, rather than its agricultural possibilities, that provide the stimulus for its Indian immigration. A small percentage flows from the towns into the rural areas and engages in cultivation, but the total impression produced is of a very minor character.

364. **Functions of Indian labour and capital in Burmese agriculture.**—As the phase of rapid agricultural expansion has now passed away, it seems to be a convenient time to estimate the respective functions performed by Indian labour and Indian capital in contributing to the development of the province. Briefly, Indian capital has been required to assist in the agricultural development of Burma, and Indian labour to supply an essential contribution to its urban development. The latter portion of this suggestion has already been adequately discussed. The former was incidentally mentioned in paragraph 74 of Chapter III as playing a part in assisting migration from Upper to Lower Burma. But a rather more full description of the part played by Indian capital, and the method of its application, is essential to a correct understanding of the present economic position of the province. The last quarter of the nineteenth century found Lower Burma in a uniquely favourable economic situation. The depreciation of the rupee had stimulated a demand for increasing exports. There were large areas of culturable wastes capable of sustaining a large population. In the vicinity, the comparatively congested population of the Upper Province provided large numbers of skilled agriculturalists of identical race and customs with the majority of the people of Lower Burma. And in Rangoon, was a large amount of surplus Indian capital seeking for a remunerative investment. The three elements of production, land, capital and labour, were each available for mutual employment. The one thing needed to bring them together was confidence, or credit, or security. The Upper Burman could not furnish on his own account the capital needed, to transform virgin jungle into cultivated land, and for his sustenance until the transformation should be completed. On the other hand, the Indian capitalist could not advance his money to unknown persons without even the means of subsistence, unless some security for its due return with interest were forthcoming. The problem was solved naturally by the utilisation of the land about to be reclaimed as the security. So rapidly was the transformation normally effected, and so valuable was the land once it was cleared, that it afforded an almost ideal security for the advances made. Strict supervision was needed to see that the money was applied to the purpose for which it was advanced. Indeed, the advance was frequently in kind, at a cash valuation; or it was a stipulation of the advance that it should be spent in tools and sustenance at the capitalist's own store. It was by this method that the waste areas of the delta were colonised. The advances were not stinted. As the land grew more valuable year by year, the interest was added to the original capital sum, the amount of the loan keeping pace with the value of the land. In many cases the loans and interest were paid off. But in a very large number, the capitalist waited till the cultivator was hopelessly involved, and then foreclosed. In some of the township courts in the delta, some capitalists were able to retain a full-time advocate to deal with such cases. The constant recurrence of this class of cases, in which there was an unfailing tendency for land cleared and cultivated by the natives of the country, to be transferred to alien non-agriculturalists, alarmed the district officers concerned. They represented matters to the authorities, and as a result, the conditions against the alienation of grant land within a certain period from the date of the grant, which had hitherto been held in abeyance, were stringently enforced. This however had but little effect. Most of the extensions were being made by squatting, involving a liability to eviction until twelve years continuous possession had accrued. Land so occupied was readily accepted as security, the theoretical liability to eviction being so remote that it came to be ignored. With the rigid enforcement of the transfer conditions with respect to grant land, it was soon recognized that a squatter had a more valuable property than the holder of a recently issued grant. The latter, with a good title, was liable to forfeiture for a breach of conditions. The former, with no title at all, and with practically no conditions, ran no risk of forfeiture.

Every Executive and Settlement Officer in the delta districts in the first few years of the current century became familiar with the anomaly, that persons holding a valuable grant from Government burned the document, and indignantly disclaimed having any such title. They found that a squatter occupation was readily accepted as a mortgageable security, whereas a grant of land was of no value to obtain capital, when the need for capital was most pressing. The anomaly was represented, and in 1906, the conditions of non-transferability applicable to grants, were extended to land occupied without title. From this date, recently extended land lost its entire value as security for the cost of its transformation from waste to cultivated land. Capital ceased to be advanced on extensions in course of transformation. The danger of the transfer of such land to alien non-agriculturalists was averted, but at the cost of a retardation of the rate of extension.

Thus, experience appears to have decided that the establishment of an indigenous peasant-proprietory in Burma is inconsistent with the rapid extension of cultivated area. Rapidity of extension needs large capital advances, and the only security for such advances in the majority of cases is the land actually extended. To permit such security is to jeopardise the possibility of the cultivator continuing to own his holding. It entails, in a large number of instances, the cultivator ultimately becoming the tenant of the land he has cleared, with the capitalist as landlord. The crux of the whole matter is the immediate transferability of the extended land. If it is transferable, then the peasant fails in many instances to become a proprietor. If it is not so transferable, then rapidity of extension is impossible. It is not suggested that the restrictions on the transfer of land under extension are the sole cause of the decline in the rapidity of the extensions. Indeed in paragraphs 74 and 85 of Chapter III of this report, it is mentioned as one of several contributary causes, among which were the disappearance by appropriation of the easily culturable waste land available, and the contraction of credit following the land boom of the early years of the past decade.

The remarkable progress made in the province by the system of co-operative credit societies as applied to agriculture, suggests that herein lies the solution of the problem of retaining the system of peasant-proprietorship without checking the agricultural expansion of the province for want of capital. So far, co-operative credit has not yet been systematically applied to the problem of encouraging extensions, and it is obvious that there will be many risks and difficulties to be encountered in the process. But the success that has been attained so far in the supply of capital for agricultural requirements under normal conditions, suggests that it should be possible to extend the utility of the system in a direction so vital to the future welfare of the province.

365. Cultivating owners and tenants.—The statistics for cultivating owners and tenants afford a means of estimating the degree of success of the policy of establishing a peasant-proprietory on the soil. Excluding *taungya* cultivators there is a population of 5,409,941 persons, or 44·94 per cent. of the total inhabitants of the province, supported by ordinary cultivation. Of these, 3,810,610 or 31·65 per cent. comprise cultivating owners and their dependants; and 1,599,331 or 13·29 per cent. are the corresponding figures for tenancies. Excluding dependants the numbers are 2,121,273 and 829,951 respectively. The figures for tenants according to the census returns appear to be hopelessly contradicted by those collected by the Land Records Department. But an examination of what the figures actually comprise, reduces the discrepancy, and suggests that the census figures may be accepted as having a moderately high degree of probability. The principal causes of the divergence are :—

Population supported by ordinary cultivation.		
Class.	Population.	Per cent of total population.
Cultivating owners	3,810,610	31·65
Tenants ...	1,599,331	13·29
Total ...	5,409,941	44·94

Cultivating owners and dependants (actual numbers).	
Cultivating owners.	2,121,273
Tenants ...	829,951

Census and administrative records of tenancies.	
Department.	Number of tenants.
Census ...	829,951
Land Records Department.	181,888

(i) The departmental figures exclude all tenancies in which the rent is a share of the produce, this form of tenancy being by far the most frequent in the province. The census figures include such tenancies;

(ii) The departmental figures include only the principal of the tenancy, the actual tenant, whereas the census figures include all the adult members of the tenants family giving material assistance in the working of the tenancy;

(iii) The departmental figures include only that portion of the province under supplementary survey, whereas the census figures are for the whole province.

The departmental figures would be admittedly more than doubled by the inclusion of *metayer* tenancies, and these figures would be again doubled by the inclusion of the assisting members of the tenants' families in the census figures. There is therefore nothing inherently improbable in the census figures. The fact that they include those members of the tenants' family who are assisting in the cultivation of the tenancies detracts somewhat from their administrative value. But the fact that the figures for cultivating owners are similarly enhanced permits them to be used for comparative purposes without any degree of uncertainty.

Taking the administrative units of the Pegu and the Irrawaddy Divisions as the areas where extensions have been most rapid, the marginal statement gives the numbers and proportions of the cultivating owners and tenants to the total cultivators, for the whole province, for these two divisions, and for the rest of the province respectively. The figures demonstrate the same conclusion attained by the more abstract economic discussion of paragraph 363, to the effect that rapidity of extensions are incompatible with the establishment of a peasant-proprietory on the soil. In the two divisions where the extensions of cultivation have been most rapid, the proportions of cultivating owners form 61·30 per cent. and 64·88 per cent. of the total cultivators, against a percentage of 75·03 for the portions of the province where the same rapidity of extension has not been experienced. Whereas tenants in the rest of the province form 24·97 per cent. of the total, in the two divisions of rapid extension they form 38·70 and 35·12 per cent. of the number of cultivators. It is possible to deduce the following general conclusions:—

Statistics of cultivating owners and tenants.

——	Owners and tenants.	Cultivating owners.	Tenants.	Percentage.	
				Cultivating owners.	Tenants.
Province	**2,951,224**	**2,121,273**	**829,951**	**71·88**	**28·12**
Irrawaddy Division	421,202	258,193	163,009	61·30	38·70
Pegu Division ...	346,272	224,664	121,608	64·88	35·12
Rest of Province ...	2,183,750	1,638,416	545,334	75·03	24·97

(i) that peasant-proprietorship, or cultivating ownership, is the normal method of cultivation in Burma, there being approximately three quarters of the cultivators, in the portions of the province unaffected by extensions, who cultivate their own holdings,

(ii) that the rapid extensions of cultivation in the delta districts, and the financial conditions accompanying such extensions, tended to the creation of a system of landlord and tenant, the extended cultivation passing largely into the hands of the persons who provided the capital, rather than to the agriculturalists who actually effected the transformation of waste areas into cultivated land,

(iii) that the measure adopted to check the development of the system of landlord and tenant; *viz.*, the prohibition of the transfer of recently extended land, tended also to check the rapidity of extension,

(iv) that the establishment of a peasant-proprietory on waste land, and rapid extensions of cultivation, are mutually incompatible.

366. Cultivating owners and tenants by religions.—The proportions of cultivating owners and tenants by religions, enables the effect of Indian participation in agriculture on the system of ownership and tenancy to be estimated. Among Buddhists there are 43 tenants to every 100 cultivating owners. Among Hindus the number of tenants exceeds the number of cultivating owners in the ratio of 107 to 100. Including Akyab, there are 54 Mahomedan tenants to every 100 cultivating owners of that religion, but if the indigenous Mahomedan cultivators of Akyab be excluded, the proportion rises to 117 tenants for every 100 owners. To the extent that immigrant Hindus and

Population supported by cultivation, arranged by religions.

Religions.	Cultivating owners.	Tenants.	Tenants per 100 owners.
Buddhists ...	3,396,978	1,471,428	43·32
Animists ...	238,024	33,837	10·01
Hindus ...	20,169	21,669	107·44
Mahomedans	91,452	49,340	53·95
Christians ...	63,831	23,042	36·10
Others ...	156	15	9·62
Total ...	3,810,610	1,599,331	41·97

Mahomedans have attained a footing in agriculture in Burma, they have introduced a much higher ratio of tenancies than obtains among the indigenous agriculturalists of the country. The comparatively small numbers of such agricultural immigrants, however, prevents these enhanced proportions from appreciably affecting the proportions for the whole province.

367. Field labourers.—It is impossible to institute any effective comparison between the numbers of field labourers as recorded in 1901 and 1911 owing to the different principles of classification adopted at the two periods. In the current census the term has been restricted to mean roughly the landless agriculturalist, but in 1891 it included all persons entering their occupations under the terms *lè lôk* and *lè thama* (cultivator), *thi sa lè lôk*, *mye hnga lôk* and *lè hnga lôk* (tenant). The difference in numbers is quite explainable by the difference in the classes included. It is a somewhat striking commentary on the legend that in Burma there exist almost unlimited areas of land to be obtained for the clearing, that 1,647,950 agriculturists (912,359 workers and 735,591 dependents) should be divorced either from ownership or tenancy of the land. Relatively, however, the numbers are but small, the number of field labourers not being enough to provide one for each three owners and tenants. It is this shortage of field labourers, especially during times of prosperity in Upper Burma, which has led to the invasion of a few districts in the vicinity of Rangoon by bands of organised Hindu agricultural labourers. Under effective discipline, they travel from village to village, performing in turn the operations of ploughing, transplanting and reaping. They are superficially more economical and efficient than the single Burmese labourer hired for the season to conduct all operations, but complaints as to the low quality of the work performed by this class of Hindu labourers have been made, and it is questionable whether this form of occupation will develop rapidly. The return of so small a number as 34,792 Hindu field labourers and their dependents, or 2·1 per cent. only of the total number of field labourers, is to be attributed to the fact that, at the time of the census, agricultural operations have ceased, and all such wandering gangs were engaged in Rangoon in the rice mills. The Mahomedan field labourers are chiefly immigrants from Bengal into the Akyab District.

Field labourers and dependants.	
Year.	Population.
1901	4,332,872
1911	1,647,950

Agricultural workers.	
Owners ...	2,121,273
Tenants ...	829,951
Owners and Tenants.	2,951,224
Field labourers.	912,359

Religious distribution of population supported by field labour.	
Religion.	Percentage.
Buddhist ...	93·4
Animist ...	1·1
Hindu ...	2·1
Mahomedan	2·2
Christian ...	1·2

368. Occupations combined with agriculture.—The combination of other occupations with agriculture as returned in the census schedules, assumes two aspects, according as agriculture is the principal or subsidiary occupation of the person recorded. When agriculture is the subsidiary occupation, it has been tabulated in the fourth and fifth columns of the composite columns of Imperial Table XV-A, Parts I and II. When agriculture is the principal occupation, subsidiary occupations have been tabulated in Table XV-B. The distribution of these two classes of dual occupations has been reduced to proportions in Subsidiary Tables IV and V. The actual numbers of agriculturalists with subsidiary occupations is given in the first marginal statement. It is probable that the numbers are very largely under-recorded. The suggestion that only 5·01 per cent. of the cultivators of the province are engaged in subsidiary non-agricultural occupations, is conclusive proof that the figures are in error, to any one acquainted with the village life of the province. As the figures are obviously defective a detailed analysis would be of but little

Agriculturalists with subsidiary occupations.			
	Males.	Females.	Total.
Rent Receivers ...	7,470	6,418	13,888
Cultivators ...	170,219	104,491	274,710
Labourers ...	45,922	26,915	72,837
Total ...	223,611	137,824	361,435

Percentage of agriculturalists with subsidiary occupations.			
Group.	Subsidiary agricultural.	Subsidiary non-agricultural.	Total.
Rent Receivers	3·79	6·98	10·77
Cultivators ..	3·03	5·01	8·04
Labourers ...	1·26	6·72	7·98

Sub-class.	Designation.	Percentage of workers with agriculture as subsidiary occupation.
I	Exploitation of the surface of the earth.	·4
II	Extraction of minerals.	1·5
III	Industry ...	4·8
IV	Transport ...	5·4
V	Trade ...	4·6
VI	Public force ...	6·6
VII	Public Administration.	13·5
VIII	Profession and Liberal Arts.	2·9
IX	Independent ...	3·0
X	Domestic ...	1·9
XI	Insufficiently described.	3·4
XII	Unproductive ...	1·8

value. As to the workers of non-agricultural occupations following agriculture as a subsidiary occupation the actual numbers for each Class and Sub-class are given at the head of Imperial Table XV-A.I in columns 32 and 33. It is probable that the degree of under-estimation is almost as great as it is in the case of the subsidiary occupations of agriculturalists.

369. Growers of special products. Rubber.—The figures in group 5 are principally concerned with the persons occupied in the industry of rubber plantation. The industry is still in its infancy there being only 10 plantations returned as employing over 20 persons. They are situated in the Mergui, Amherst, Hanthawaddy and Toungoo Districts. In many respects the numbers are greatly underestimated, there being numerous plantations in course of preparation in various stages of clearing and planting, the workers of which have been included in less specified occupations, in the ordinary census, and have been omitted entirely from the special industrial return. Although the greater portion of Burma is not included in the zone generally regarded as most suitable for rubber plantation, and although the period of dry weather between the rainy seasons is rather prolonged, experience has proved that these are not necessarily insuperable handicaps to the progress of the industry. The amount of dew in the dry season is so abnormally heavy, as to compensate in some measure for the absence of rainfall. Another factor in favour of the advance of the industry is the amount of land available. As rubber can be grown on land unsuited for the cultivation of paddy, the staple crop of the province, there is a large area of unappropriated land suitable for rubber cultivation, without interference with any established crops. It is difficult to state, at this stage of the industry, the extent to which it will attract Indian labour or absorb the energies of the indigenous population. At present the tendencies are towards the utilisation of Indian labour, but the industry is not sufficiently advanced for an estimate to be made of the respective shares which indigenous and immigrant labour will take in its development.

Workers on rubber plantations.	
Ordinary Census	4,037
Special Industrial Census.	4,047

There has been a large decline of 147,017 (from 385,528 in 1901 to 232,294 in 1911) in the number of persons in Group 6, which comprises persons concerned in the growth of fruit, flower, vegetable, betel, vine, areca nut and other similar vegetable products, and market gardeners. The decline is due to the fact that gardening and the growing of vegetable products is an occupation usually carried on jointly with ordinary cultivation, and it is generally a matter of indifference to a person engaged in such dual or mixed occupation, under which designation he is returned. The rather detailed instructions given at the present census regarding the entries of ordinary cultivators seem to have acted in predisposing enumerator to enter such persons as cultivators rather than as gardeners.

370. Forestry.—Sub-order I(*c*), Forestry, comprises two groups, the administrative officers connected with the care and control of the forests of the province, and the persons who are engaged in the working of forests and the collection of forest produce. The numbers, 5,116 officials and 37,649 forest workers, are moderate and probable advances on the corresponding figures for 1901.

Population supported by industries connected with the raising of farm stock.

Occupation group	1911.	1901.	Increase.
Cattle and buffalo breeders.	2,645	5,900	— 3,255
Sheep, goat and pig breeders.	12,232	3,403	+ 8,829
Breeders of other animals.	35	473	— 438
Herdsmen, etc.	91,032	57,751	+ 33,281
Total ...	105,944	67,527	+ 38,417

371. Raising of farm stock.—The raising of farm stock provides employment supporting 105,944 persons, or ·88 per cent. of the population of the province. The comparison of the relative numbers in 1901 and 1911 is not to

be relied on, as in 1901 dealers as well as breeders were grouped jointly. The separation now effected for the purpose of comparison is artificial. This raising of stock is one of the branches of agriculture where the Indian immigrant takes a more than proportionate share of the employment. Hindus and Mahomedans form about 10 per cent. of the population concerned in this industry. In the particular branch of cattle and buffalo breeding, the Hindus with 37·5 per cent. almost rival the Buddhists with 40·6 per cent. of the total population concerned. In making this comparison however it must be remembered that the Hindus engage in it as a whole-time occupation and are therefore fully recorded whereas the Buddhists engage in the occupation of stockbreeding in conjunction with ordinary cultivation, and are therefore only occasionally recorded, when stockbreeding assumes large proportions of the total activity of the persons enumerated.

Religious classification of population concerned with raising of farm stock.

Religion.	Raising of Farm stock.	Cattle and buffalo breeders.
	Percentage.	Percentage.
Buddhist ...	84·7	40·6
Animist ...	4·2	17·5
Hindu ...	5·5	37·5
Mahomedan ...	4·4	3·5
Christian ...	1·2	·9

372. General review of agricultural occupations.—The space given to a consideration of the groups of the first order of occupations may seem to be unduly great. But although the occupations included in the head "Pasture and Agriculture" may form but one order only out of 55, and 13 groups only out of 169, the population concerned is over 70 per cent. of the total population of the province. The remaining industries are almost entirely dependent on agriculture for their welfare. "Transport" is little more than the collection of agricultural produce and the distribution of general requirements to agriculturalists. "Industry" is largely the conversion of agricultural produce for export or use, or the preparation of the requirements of the agricultural population. Similarly, "Trade" is vitally dependent on agriculture, advancing with its advance, and sharing its vicissitudes. In the undeveloped condition of the mineral resources of the province, agriculture is the only extensive primary industry. The remaining industries are subsidiary, and dependent for their existence on its general prosperity.

It has therefore been necessary to discuss at some length the condition of the industry so vital to the province, especially as the interval since the last census has seen such a remarkable change in its rate of progress. The change is not specially manifest in the occupational statistics, the increase of 1,522,032 persons or 22 per cent. in the population dependent on agriculture in ten years appearing to shew a healthy rate of increase. It is obscured partly by the fact that the change of conditions did not commence to operate till the latter half of the past decade, partly by the extended census area over which statistics have been compiled, and partly by changes in the principles of classification and in the method of application of those principles. But the retardation of the rate of agricultural advance has manifested itself in other directions. The rate of increase for the whole population has slackened, migration has declined, the Port of Rangoon has failed to maintain its previous rate of increase, and the marked decline in the rapidity of agricultural expansion has been a commonplace of the revenue and financial administration of the province for the past ten years. The general economic conclusions have already been indicated in paragraph 364, dealing with the numbers of cultivating owners and tenants. The rapid extension of cultivation involved the creation of landlord and tenant classes to a greater extent than existed in the more settled portions of the province. The administrative measures taken to check the transfer of newly extended land to non-agriculturalists succeeded in their object. But, synchronising, as they did, with the period when the rate of extension must necessarily decline owing to the appropriation of all the easily culturable waste land of the delta districts, and with a contraction of credit following the land boom of the early years of the century, they were followed by a marked retardation of the agricultural expansion of the province.

Pastoral and Agricultural Population.

1911 ...	8,472,391
1901 ...	6,950,359
Increase ...	1,522,032
Per cent. ...	22

NON-AGRICULTURAL OCCUPATIONS.

373. Fishing.—Allied with agriculture in the first sub-class of occupations by the fact that they are concerned with the exploitation of the surface of the

earth, are the two industries of fishing and hunting. These two groups combined form the second order of occupations, and associated with "Pasture and Agriculture" comprise the first of the 12 sub-classes of occupations. Hunting is the professional occupation of but a small number of the population, but fishing plays a considerable part in the industries of the province, supporting a population of 151,601 persons or 1·26 per cent. of its inhabitants. The majority of the fishermen are engaged in the inland fisheries of the province. During the rains large tracts of land are flooded and become the spawning ground of the fish from the creeks and rivers. With the fall of the waters all means of egress from the flooded areas are screened off and the return of the fish to the creeks and rivers prevented. As the fall of the water becomes more pronounced the fish endeavour to retreat to deep water from the rapidly drying swamps. In doing this they pass through false openings prepared in the screens, leading to traps, and are then secured. Some fisheries provide by this method a daily take of fish for several months. Fishing operations usually commence in October and last till February or March. At the time of the census, fishery work had slackened off considerably, and most of its hired labourers were engaged in other occupations.

374. Extraction of Minerals.—The first of the four main classes of occupations comprising the production of raw materials has still another sub-class concerned with the extraction of minerals. This is divided into three orders of occupations; mines, quarries and salt. The populations supported by these industries is insignificant compared with that supported by the first sub-class of occupations. But here, the vague description of so many labourers engaged in the extraction of minerals by the general designation, coolie, has undoubtedly operated to reduce the numbers returned. The figures can be checked to a certain extent by the results of the Special Industrial Census conducted synchronously with the ordinary census; but the check is not absolute, as the Special Industrial Census leaves out all workers in industrial units with less than 20 workers employed. The marginal statement indicates that the vagueness of the entries in the census schedules has been responsible for a considerable reduction in the figures of the workers in the industries devoted to the extraction of petroleum and other minerals. The omitted persons will be found in the residuum groups (numbers 166 and 167) designated "Mechanics otherwise unspecified" and "Labourers and Workmen otherwise unspecified." These contain 8,240 and 351,434 persons respectively, the total of the unspecified workers of all industries. But even if allowance is made for the under-enumeration of the persons concerned in these industries the population concerned is but small. Apart from the development of the oil fields the mineral industries of Burma are in their infancy.

Population supported by the production of Raw Materials.

Sub-class.	Population.
Exploitation of the surface of the earth.	8,624,395
Extraction of minerals.	15,293

Actual Workers in Mines and Quarries.

Occupational Group.	Ordinary Census.	Special Industrial Census.
Petroleum Wells	2,129	5,324
Mines ...	3,192	3,682
Quarries ...	2,048	4,125
Total ...	7,369	13,131

375. Oil.—The oil fields of Burma produce practically the whole output of petroleum in India, the yield in 1909 being 230,000,000 gallons out of 233,000,000 gallons for the whole of India. The oldest and most developed of the oil fields of Burma are situated in the Yenangyaung Township of the Magwe District. There, native wells have been at work for over a hundred years. Prior to the annexation of Upper Burma the output was estimated at about 2,000,000 gallons per annum. It was not till 1887 that scientific drilling was attempted. This resulted in a rapid increase in the yield to 10,000,000 gallons in 1894 and 40,000,000 gallons in 1902. The expansion continued until 1910 when signs of declining output became noticeable. Other fields have been worked, and fresh ones are being opened in the Pakôkku, Minbu, Mandalay and Myingyan Districts. Taking the figures from the Special Industrial Census as being more reliable than those obtained from the ordinary enumeration returns, there are 5,324 workers engaged in the extraction (as distinct from the refinery) of petroleum. The refining of the

Workers at Petroleum Wells.

District.	——
Pakôkku ...	1,060
Minbu ...	98
Magwe ...	2,800
Mandalay ...	55
Myingyan ...	1,311
Total ...	5,324

oil produced is a separate industry located in the City of Rangoon and the Hanthawaddy District. It will be subsequently considered in connection with the purely industrial occupations of the province.

376. **Extraction of Metals.**—The industrial returns shew 3,682 persons engaged in the extraction of metals. Tin is obtained principally in Mergui where it is worked by small Chinese contractors. Wolfram is an infant industry. Large quantities have been found in the Tavoy District and there are numerous small companies commencing to work at the extraction of this metal. Silver and lead are being obtained in the Northern Shan States. The principal source of income at present is obtained by the smelting by modern methods of the refuse slag left by previous Chinese workers, after the crude extraction of what metal they could obtain by primitive methods.

Extraction of Metals (Actual Workers).	
Tin and Wolfram	1,735
Silver and Lead	1,845
Galena ...	102
Total ..	3,682

Still continuing to accept the returns of the Special Industrial Census in preference to those of the ordinary enumeration, there are 4,125 workers engaged in the extraction of non-metallic minerals. The extraction of rubies is effected by a company which has practically a monopoly, but under an old law women are permitted to search for rubies under restricted conditions. The jade mines are situated outside administered territory and do not come within the ordinary census area.

Extraction of non-metallic Minerals.	
Class.	Number of Workers.
Ruby Mines ...	1,393
Jade Mines	1,136
Stone Quarry	1,596
Total	4,125

377. **Preparation and Supply of Material Substances.**—The second great class of industries is that concerned with the preparation and supply of material substances. It is divided into three sub-classes, 36 orders, and 118 groups of occupations as indicated in the statement below :—

Class B.	Sub-Class.		Orders.	Groups.	Population supported.	
	No.	Designation.			1911.	1901.
Preparation and supply of material substances.	III	Industry ...	VI to XIX	21 to 93	806,431	1,028,022
	IV	Transport	XX to XXIII	94 to 105	393,652	259,053
	V	Trade ...	XXIV to XLI	106 to 138	1,203,721	1,010,081
Total ...	...	.....	.....	... ..	2,403,804	2,297,156

Industry and transport combined support nearly one-tenth of the population, and trade supports another tenth, the three sub-classes together supporting 19·97 per cent. of the inhabitants of the province. The actual workers engaged in the preparation and supply of material substances comprise 11·47 per cent. of the total population, distributed between Industry, Transport and Trade in the percentages of 3·90, 1·88 and 5·69 of the population respectively. Compared with the corresponding figures for Pasture and Agriculture, supporting 70·37 per cent. of the population, it is seen that the occupations of this class of industries support but a small proportion of the people.

Proportions of Total Population.		
Preparation and supply of material substances.	Percentage of	
	Persons supported.	Actual workers.
Industry ...	6·70	3·90
Transport ...	3·27	1·88
Trade ...	10·00	5·69
Total ...	19·97	11·47

An important feature of the employments concerned with the preparation and supply of material substances is the comparatively high proportion of Indians engaged. Owing to the absence of an analysis of occupations by race it is necessary to use the figures of Imperial Table XVD for Occupation by Religions for the purpose. These are reduced to proportions in Subsidiary Tables VIII and IX appended to this Chapter. Whereas in the industries of Class A, concerned

Percentage of Population supported by occupations in Class B.				
Religion.	Total.	Industry.	Transport.	Trade.
Buddhist ...	83·1	84·6	72·5	85·7
Animist ...	2·9	2·6	1·9	3·5
Hindu ..	6·5	7·3	13·7	3·6
Mahomedan	6·5	4·9	9·7	6·5
Christian ..	·9	·6	2·0	·6
Others ...	·1	·2	...	·1

with the production of raw materials, the percentage of Indians is 3·4 (1·1 per cent. Hindus and 2·3 per cent. Mahomedans), or only 2·1 per cent. if the indigenous Mahomedan cultivators of Akyab be excluded; in Class B, concerned with the preparation and supply of material substances, the proportion is 13 per cent. It is greatest in the transport trades with 23·4 per cent. (13·7 Hindus and 9·7 Mahomedans). The Indian population supported by "Industry" is 12·2 per cent. (7·3 Hindu and 4·9 Mahomedan), and by "Trade" is 10·1 per cent. (3·6 Hindu and 6·5 Mahomedan). Thus the Hindu constituent of Indian immigration is required more to supply the labour requirements of the "Industry" and "Transport" industries of the province, while the Mahomedan constituent is more concerned with "Trade." Another aspect of the same question is the distribution of the Indian population in this class and its three component sub-classes. Approximately, 40 per cent. of the Hindu population and 37 per cent. of the Mahomedan population of the province are supported by the industries concerned with the preparation and supply of material substances. "Industry," "Transport" and "Trade" is the order of distribution for the Hindu community, but among the Mahomedans, "Trade" supports a slightly larger proportion than "Industry" and "Transport" combined.

Distribution of Indian Population in Preparation and Supply Industries.

Sub-Class.	Percentage of Population of each Religion.	
	Hindu.	Mahomedan.
Industry ...	15·12	9·34
Transport ...	13·84	9·05
Trade	11·08	18·58
Preparation and Supply.	40·04	36·97

378. Industry.—Industry is the third of the 12 main sub-classes of occupations. It comprises 14 orders and 73 groups, and supports a population of 806,431. The following statement affords a better presentation of its scope, the nature of the occupations included and the distribution of the population amongst its various orders, than could be given by a lengthy description:—

Sub-class.	Order.		Groups.	Population supported.	
	Number.	Designation.		1911.	1901.
III. Industry	VI	Textiles	21 to 31	155,050	295,985
	VII	Hides, Skins and hard materials from the Animal Kingdom.	32 to 35	624	1,813
	VIII	Wood	36 & 37	191,686	185,559
	IX	Metals	38 to 44	34,912	40,579
	X	Ceramics	45 to 49	18,821	27,878
	XI	Chemical products-property so called, and analogous.	50 to 55	10,560	18,680
	XII	Food industries ...	56 to 66	178,255	230,650
	XIII	Industries of dress and the toilet.	67 to 73	116,056	104,796
	XIV	Furniture industries ...	74 & 75	1,862	1,013
	XV	Building industries ...	76 to 79	24,257	53,592
	XVI	Construction of means of transport.	80 to 82	2,187	12,121
	XVII	Production and transmission of physical forces, heat, light, electricity, motive powers, etc.	83	180	230
	XVIII	Industries of luxury, and those pertaining to Literature and the Arts and Sciences.	84 to 92	58,878	50,911
	XIX	Industries pertaining to refuse matter.	93	13,103	4,225
		Total ...		806,431	1,028,022

The most remarkable feature of the statement just presented is the large apparent decline in the population supported by industrial occupations from 1,028,022 in 1901 to 806,431 in 1911. Though there is a genuine decrease in some of the occupational orders and groups comprised in this sub-class, a large portion of the decrease is apparent only, and due to the impossibility of instituting any effective comparison between the figures for the two enumerations. The distinction between "Industry" and "Trade" is very largely artificial in Burma, the maker and seller of a commodity being generally the same person. In 1901

the distinction was not even attempted, and the figures for that year have been calculated as far as possible by artificially separating the combined figures then given. Attempts have been made to trace the causes of the discrepancies by disregarding entirely the grouping introduced by the two distinct schemes of classification, and comparing the numbers returned at the two enumerations under the various vernacular terms employed. This however was nullified by the fact that the list of the vernacular terms of the occupations returned in the records in 1901, printed on pages 92 to 109 of the Appendix to the Administrative Volume of the Census Report for that year, is defective, there being no vernacular terms given for about one half of the occupational groups, even when persons are shewn as being returned in such groups.

But quite apart from the impossibility of clearly distinguishing between "Industry" and "Trade" in the majority of the non-agricultural occupations of the province, there is the further source of discrepancy in the fact that many of such occupations are subsidiary to agriculture, and carried on either by subordinate members of the agricultural household, or by agriculturalists themselves in their off season. Although in Burma there is a high degree of industrial specialization as to locality, there is no such specialization with respect to the industry itself. The cotton and silk spinner and weaver is usually a female member of an agricultural family, herself assisting in cultivation at busy periods. The dyer may be entered either as a cloth-seller or as a cultivator, as he probably follows one or other of these occupations. He probably dyes both raw materials and fabrics and so may be entered either in groups 30 or in group 71. The list of dual occupations might be indefinitely extended. Seeing that there are so many causes of discrepancy, that the classifications of 1901 and 1911 have proceeded on different lines, that in the absence of the vernacular terms recorded in 1901 any reconstruction of the former is artificial, and also that the occupations under the head of "Industry" are mixed occupations in that they are universally carried on jointly with the corresponding occupations, under the head of trade, and dual occupations, in that they are usually carried on alternatively with agriculture, no advantage will accrue from a detailed examination of the respective figures for the two years of enumeration. Agriculture has loomed larger in minds of the people and it has generally been given the preference in the case of dual occupations. Except in one or two instances it may be assumed that the decline in the numbers of person supported by "Industry" is apparent only, and due to the impossibility of instituting an effective and reliable comparison with the figures for 1901.

379. **Oil Refinery.**—A considerable industry has arisen in connection with the disposal of the petroleum extracted from the various oil fields of the province. This industry is controlled by three companies, the Burma Oil Company, the Indo-Burma Petroleum Company, and the British-Burma Petroleum Company. It is located in the City of Rangoon and the Hanthawaddy District. The Burma Oil Company has a pipe line from the oil fields to their refineries, but the other companies depend on specially constructed oil-barges for their transport. There is the same discrepancy in the number of workers returned in the ordinary census returns and in the returns of the special industrial census. This is due to the large and varied number of occupations, such as engineering, tinning and general labour, included in the operations of oil refining. It is a matter of extreme difficulty, which instructions do not appear to remove, to get both the operation performed and the general industry for which it was performed, entered in the enumeration schedule. Consequently, but a portion of the persons occupied in the industry are specifically returned as engaged in oil refining operations. The remainder are to be found in other groups, principally those devoted to insufficiently defined occupations. The importance of the industry to the locality in which it has settled is to be seen from the fact that it employs over ten thousand workers. It exemplifies in a striking manner the dependence of Burma on immigrant labour for its large associated industries. The indigenous Burmese form only 15·8 per cent. of the population supported, 83·6 per cent. being Indians (59·5 per cent. Hindus and 24·1 per cent. Mahomedans).

Workers in Oil refining Industry.	
Ordinary Census	5,583
Special Industrial Census.	10,747

Religious distribution of population supported by oil refining.	
Religion.	Per cent.
Buddhist ...	15·8
Animist ...	...
Hindu ...	59·5
Mahomedan ...	24·1
Christian ...	·6

380. Textile Industries.—The decline in the number of persons supported by cotton weaving, noticed in the Report for 1901, has continued with accelerated rapidity. Mr. Lowis commented on the difficulty of drawing the line between the weaver who weaves for a living and the weaver who produces nothing more than a sufficiency of coarse cloth for home consumption. The line is so shadowy and indefinite that considerable divergencies in the returns for succeeding enumerations must be anticipated. In order to introduce a more specific line of demarcation between persons who are really occupied in an industrial sense and those who are simply preparing articles for household use, the criterion of the receipt of wages was introduced. The result is not very fortunate. It eliminated the class of weavers, who, without having an extensive industrial connection, spin or weave and barter their produce with their neighbours. But the large decline in the numbers recorded is much greater than can be explained either by the indeterminate nature of the line of demarcation between industrial and household industry, or by the fixation of the line of demarcation at too high a level. The figures, however, disturbed and distorted they may be by differences of record and differences of classification, are a reflection of the actual decline in the textile industries of the province. The industries of spinning and weaving both silk and cotton, are domestic industries generally performed by the younger females of the household. The great majority of weavers and spinners are members of agricultural families, though in some localities the industries are sufficiently established to furnish full time occupation for a comparative large proportion of the population. The agricultural expansion of the past thirty years has tended to affect the textile industries adversely in two directions. On the one hand, the large extension of cultivation, simultaneously with advancing prices, has made the population as a whole much less dependent than formerly on the produce of such domestic industries. On the other hand, in order to balance the enormous and advancing exports of paddy from the province, articles of European manufacture (largely textiles) have been imported in immense quantities. Economic forces have been tending to stimulate the agricultural industries of the province at the expense of those industries not directly connected with the disposal of agricultural produce. It is a commonplace among administrative officers of long standing that both the cotton and silk village industries are decaying. The sound of the loom which used to be heard continuously from morn till eve in almost every house in the village, is now heard neither so continuously nor so frequently as formerly. The figures given probably over-estimate the decline. In addition to having been recorded under rather more definite and stringent conditions as to inclusion, they shew the figures for that portion of the industry in which the decline has been most rapid; *viz.*, that carried on for purposes of trade. Spinning and weaving for household use has not been affected so seriously by the competition of cheap European piece goods as spinning and weaving for a livelihood. The census records shew the decline where it is most apparent, and omits to present the figures where the decline is of a far less serious character. The numbers of agriculturalists returning weaving as a subsidiary occupation is 16,077 only, of whom 14,254 are females and 1,823 males.

Population supported by Textile Industries.

Group.	Occupation.	1911.	1901.
22	Cotton spinning, sizing and weaving.	132,737	243,670
27	Silk spinners and weavers.	18,621	34,104

Sex distribution of Textile Workers.

Group.	Males.	Females.
Cotton ginning, cleaning and pressing.	373	514
Cotton spinning, sizing and weaving.	5,219	91,766
Rope, twine and string	418	379
Other fibres (cocoanut, aloes, etc.).	10	4
Wool carders and spinners.	23	1
Silk spinners and weavers.	3,047	10,616
Dyeing, bleaching, printing, etc.	28	4
Other (lace, crepe, embroideries, etc.).	5	32
Total ...	9,123	103,316

Weaving as a subsidiary occupation.

	Males.	Females.	Total.
Cultivators ...	1,509	12,357	13,866
Labourers ...	314	1,897	2,211
Total ...	1,823	14,254	16,077

381. Religious distribution of Industrial Population.—The religious

Group.	Occupation.	Percentage of population.					
		Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.
22	Cotton ginning, etc.	25·6	·4	60·3	13·7	...	...
53	Oil refining	15·8	...	59·5	24·1	·6	...
56	Rice pounders and huskers ...	77·1	1·4	12·7	8·3	·5	...
59	Butchers	64·8	1·4	2·2	30·0	1·5	·1
69	Shoe, boot and sandal makers	77·8	8·1	11·9	1·8	·3	·1
71	Washing, cleaning and dyeing	52·0	1·1	39·3	6·9	·7	...
72	Barbers	3·8	3·9	54·5	36·9	·5	·4
78	Bricklayers, etc.	75·1	·7	9·5	14·4	·1	·2
93	Industries connected with refuse	39·3	·6	50·4	7·4	1·7	·6
	Industry generally ...	84·6	2·6	7·3	4·9	·6	...

composition of the industrial population affords some indication of the nature of the demand by Burma for Indian labour. The above statement gives nine industrial groups in each of which the proportions of Indians; *i.e.*, Hindus, Mahomedans and the members of the other religions, is considerably greater than the general proportion they bear to the total population. The same fact can be presented in another manner. Whereas only 6·70 per cent. of the population of the province is supported by industrial occupations, 15·12 per cent. of the Hindu population and 9·34 per cent. of the Mahomedan population are so supported. Thus the Indian population is dependent on industrial occupations to a much higher degree than the general population of the province.

Population supported by Industry.	
	Percentage of total.
Province ...	6·70
Hindu ...	15·12
Mahomedan.	9·34

382. Transport.—The transport industries form the fourth of the 12 sub-classes of occupations. They have been divided into four orders; transport by water, transport by road, transport by rail, and the Post Office, Telegraph and Telephone services. These have been further subdivided into 12 groups, details for which will be found in the various sections of Imperial Table XV. The following statement gives the general scheme of classification for the transport of industries and the distribution of the population they support :—

Sub-Class IV.	Order.		Groups.	Population supported.	
	Number.	Designation.		1911.	1901.
Transport	XX	Transport by water ...	94—97	131,071	113,951
	XXI	Transport by road ...	98—102	230,168	128,215
	XXII	Transport by rail ...	103 & 104	27,686	12,033
	XXIII	Post Office, Telegraph and Telephone services.	105	4,727	4,854
Total ...				393,652	259,053

Despite the increases of 15, 80 and 120 per cent. in the population supported by transport by water, road and rail respectively, it is probable that vagueness of entry has been responsible for a considerable under-estimate of the persons employed in the transport industries. It is true that they are less liable to the disturbances produced by dual and mixed employments than the workers in industrial occupations, but a comparison of the census figures with those of the returns of the persons employed on the railway and in the Postal and Telegraph Departments indicates that the groups of unspecified occupations must contain a considerable number of workers who should have been shewn as transport employés. As regards the participation of Indian labour in transport occupations, the actual numbers of Hindus and Mahomedans they support is not quite so great as in the purely industrial occupations. But they form much higher proportions of the total population

Percentage of Indian to Total Population.			
Order.		Hindu.	Mahomedan.
20	Transport by water ...	5·5	15·2
21	Transport by road ...	12·7	6·0
22	Transport by rail ...	57·8	14·3
23	Post, Telegraph, etc. ...	32·8	10·7
	Transport generally ...	13·7	9·7

supported. Whereas Hindus and Mahomedans form 12·2 (7·3+4·9) per cent. of the industrial population, they form 23·4 (13·7+9·7) per cent. of the population supported by transport occupations.

Postal and Telegraph Services (Actual workers).			
	Postal Department.	Telegraph Department.	Total.
Special Industrial Census.	2,892	2,307	5,199
Ordinary Census.	...	...	2,465

Post Offices.		
	Europeans and Anglo-Indians.	Indians and Burmans.
Post offices ...	45	2,579
Combined Post and Telegraph offices.	2	266
Total ...	47	2,845

383. Postal and Telegraph Workers.—The Special Departmental returns demonstrate the general unreliability of the ordinary census returns as to the numbers following each occupation. This is obvious in the returns for postal and telegraph workers. The difference is principally due to the lack of detailed description of such persons as are included in the clerical and road establishments of the Postal Department, and in the clerical, skilled, unskilled and subordinate branches of the Telegraph Department. Taking the Departmental returns, the second marginal statement gives the numbers of workers of different classes in the Postal Department. In the Telegraph Department, there is a much higher proportion of European and Anglo-Indian labour. This is due to the signalling department which is almost exclusively manned by European and Anglo-Indian signallers. Full details of the nature of the labour in each of the six branches of the Telegraph Department are to be found in Subsidiary Table X(*b*) of this Chapter. From the ordinary census records it is seen that these departments are manned to a great extent by Indian labour, Hindus and Mahomedans forming 43·5 (32·8+10·7) per cent. of the population supported by the employment given.

Workers in Telegraph Department.			
Branches.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Administrative ...	18	4	22
Signalling ...	311	20	331
Clerks ...	7	78	85
Skilled labour ...	...	364	364
Unskilled labour	...	1,049	1,049
Messengers, etc.	...	456	456
Total ...	336	1,971	2,307

384. Railway Workers.—

Special returns of Railway workers.							
Department.	Directly employed.		Indirectly employed.		Total.		
	Europeans and Anglo-Indians.	Indians and Burmans.	Europeans and Anglo-Indians.	Indians and Burmans.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Agency ...	16	44	...	...	16	44	60
Traffic ...	279	3,620	...	2,644	279	6,264	6,543
Locomotive, Carriage and Wagon.	336	5,832	...	197	336	6,029	6,365
Audit ...	13	314	...	...	13	314	327
Stores ...	6	53	...	342	6	395	401
Medical ...	11	157	...	...	11	157	168
Engineering ...	104	8,534	18	5,690	122	14,224	14,346
Total ...	765	18,554	18	8,873	783	27,427	28,210

The above return gives the number of workers directly and indirectly employed in the construction and management of the railways of the province. The census returns shew only 18,382 workers, which does not widely differ from the total number of persons actually employed by the railway company directly. The difference between the numbers entered in the special return and those entered in the ordinary census returns represents vague entries of occupations in the ordinary census schedules especially among indirectly employed workers.

Census returns of Railway Workers.			
Order.	Group.	Occupation.	Number of Workers.
	103	Railway workers other than construction coolies.	15,368
	104	Construction coolies	3,014
22		Transport by rail ...	18,382

385. **Trade.**—The last of the sub-classes comprised within the main class of industries concerned with the preparation and supply of material substances, and the fifth sub-class in the general scheme, is the combination of all the industries of exchange under the general term "Trade". There are 18 orders and 33 groups of occupations included in this division as detailed in the following statement :—

Sub-Class.	Order.		Groups.	Population supported.	
	Number.	Designation.		1911.	1901.
V. Trade	XXIV	Banks, establishments of credit exchange and insurance.	106	17,345	8,929
	XXV	Brokerage, commission and export.	107	21,415	27,161
	XXVI	Trade in textiles ...	108	74,875	45,450
	XXVII	Trade in skins, leathers and furs.	109	1,481	190
	XXVIII	Trade in wood	110	21,988	30,629
	XXIX	Trade in metals ...	111	1,644	1,339
	XXX	Trade in pottery ...	112	10,386	6,963
	XXXI	Trade in chemical products	113	2,903	6,473
	XXXII	Hotels, cafès, restaurants, etc.	114 & 115	21,651	20,691
	XXXIII	Other trade in food stuffs ...	116 to 124	513,911	451,914
	XXXIV	Trade in clothing and toilet articles.	125	6,531	8,183
	XXXV	Trade in furniture ...	126 & 127	13,496	7,158
	XXXVI	Trade in building materials .	128	3,057	4,942
	XXXVII	Trade in means of transport	129	15,661	26,223
	XXXVIII	Trade in fuel	130	10,753	4,466
	XXXIX	Trade in articles of luxury and those pertaining to Literature and the Arts and Sciences.	131 to 133	10,961	19,684
	XL	Trade in refuse matter ...	134	94	...
	XLI	Trade of other sorts ...	135 to 138	455,569	339,686
		Total ...		1,203,721	1,010,081

A comparison of the populations supported in 1901 and 1911 respectively by the several orders of occupations comprised in the general designation "Trade" is open to all the objections urged against the validity of such a comparison in the case of "Industry". The occupations are inextricably mixed with those grouped under the designation "Industry", they are in many cases pursued in conjunction with other occupations which might be alternatively returned, they are the result of the translation of vague vernacular terms which in many instances do not permit of precise classification, and the scheme of classification adopted in 1901 does not permit of a real comparison with the records of 1911. Unfortunately, a complete list of the vernacular terms returned in the Census of 1901 is not available, but those that have been published in pages 92 to 109 of the Administrative Volume for that year indicate many points of divergence in the precise meaning given to the terms used in the course of tabulation following the two enumerations. In 1901, the persons recorded under the very general term *ze the* (bazaar seller) were entered in group 106, a group reserved entirely for the sellers of miscellaneous vegetable products. Such terms as "Brokerage, commission, and export" Order XXV, vague as they are in their English connotation, have much more indefinite meanings in the vernacular. The persons returned in Order XLI have been a source of considerable difficulty, and the returns have been examined several times with a view to allotting as many as possible to definite groups. All entries which could possibly be transferred from the group of Order XLI, without an undue exercise of the imagination, have been placed into more appropriate occupational orders. The fact that even after such transference 455,569 persons out of a total of 1,203,721 cannot be definitely classified, renders a detailed examination of the figures for each order of little value.

386. **The Miscellaneous Store.**—It is somewhat to be regretted that room was not found in the general scheme of classification for a special group to comprise the general store or *kòn zòn saing* to be found in most of the large villages, and in every small town in Burma. The following quotation from

paragraph 311 of the Census Report for India for 1901 shows that this class of shop is not peculiar to this province:—

"There are moreover certain recognised shops which have no corresponding equivalent in English, such as that known in Bengal as a *manohári dokán*. In 1891 the keepers of such shops appear to have been treated as stationers; but although stationery is sold, this is by no means the only, or indeed the most important, class of goods dealt in; amongst other articles, may be mentioned clocks, glass, glass bangles, looking-glasses, enamelled plates, toys biscuits, stockings, handkerchiefs, shoes, brushes, woollen goods, tobacco, soap, perfumery, tin boxes, walking-sticks, and hukhas; and at the present census they have been classed as general dealers in the Imperial Table."

Unfortunately there is no group of general dealers in the current scheme of classification. The Burmese general store is even more catholic in its articles of merchandise than the *manohári dokán* of Bengal. It deals in articles which would separately bring it under occupational groups 112 (Trade in pottery), 113 (Trade in chemical products), 114 (Trade in ærated waters), 116, 117, 119, 120, 121 (various trades in food stuffs), 125 (Trade in clothing and toilet articles), 127 (Trade in crockery, glassware, bottles, etc.), 132 (dealers in common bangles, bead necklaces, fans, small articles, toys, etc.), and 133 (booksellers, stationers, etc.). It is not suggested that each separate miscellaneous store deals in all the articles in all the groups herein mentioned. But each store would deal in the majority of them, and the aggregate of stores included in the term *kôn zôn saing* in a small locality would include among the goods for sale articles which are the subject matter of all the groups mentioned above.

In the census of 1891, persons entering themselves under this designation were classified in group 396 of the scheme then followed as "General Merchants". There is no such group in the present scheme, and indeed, even if there had been, it is doubtful if the keeper of a huckster's shop would have been entered under such a misleading term as "General Merchant". Not being able to find a specific group under which this class of traders could be classed they were entered under Group 135 in the present scheme "Shop-keepers otherwise unspecified". An analysis has been made of the numbers of workers and dependents included in Group 135 as unspecified shop-keepers. The inclusion of the small general dealer may not perhaps be fully justified; as the class of trade carried on, though of a miscellaneous character, is definitely specified. This group is however more appropriate than any of the other groups of the scheme dealing with trades of a specific nature would have been, and any misconception caused by the grouping adopted is corrected by the marginal statement indicating the populations under each important section of Group 135.

Analysis of population supported by the occupations included in Group 135 (Shop-keepers otherwise unspecified).

Burmese Term.	English Term.	Population supported.	
		Workers.	Dependents.
Kôn zôn saing ... } Kôn zôn yaung ... }	Huckster ...	23,172	21,934
Ze ... ... } Ze thè ... ... } Ze yaung ... ... }	Bazaar sellers	121,454	82,165
Ze saing	Bazaar stall keeper.	8,327	5,140
Kônthè	Trader ...	7,684	3,217
Kôn yaung ...	Seller of goods	2,227	1,438
Other terms ..	.. ...	107,177	67,004
	Total ...	270,041	180,898

387. Proportion of Indians in trading population.—The numbers of orders and groups in the trading population is too great for the presentation of the percentages of Hindus and Mahomedans among the trading population in a marginal statement. Subsidiary Tables VIII and IX give the necessary information for the orders and groups where the percentage is large. For the trading population in general Hindus number 3·6 and Mahomedans 6·5 per cent. respectively of the total. The Hindus have high percentages in groups 106 (Banking credit exchange and insurance), 107 (Brokerage commission and export), 118 (Sale of dairy produce), 119 (Sweetmeat sellers, etc.) and 124 (Dealers in hay, grass and fodder). The Mahomedans have a more generally high percentage distributed over most of the branches of the trade. The percentages of Hindus and Mahomedans supported by trade are 11·08 and 18·58 respectively, compared with 10 per cent. for the province generally.

388. Public Administration and Liberal Arts.—The third of the four main classes of occupations includes all which can be classed under the term "Public Administration and Liberal Arts." This class is divided into four

sub-classes (numbers VI to IX), ten orders and twenty-three groups as shown in the following statement :—

Class.	Sub-class.	Order.		Groups.	Population supported.	
		Number.	Designation.		1911.	1901.
C Public Administration and Liberal Arts.	VI. Public Force.	XLII	Army	139 & 140	24,984	16,619
		XLIII	Navy	141	28	791
		XLIV	Police	142 & 143	54,483	36,591
	VII. Public Administration.	XLV	Public Administration.	144 to 147	103,108	138,169
	VIII. Professions and Liberal Arts.	XLVI	Religion	148 to 151	140,834	148,386
		XLVII	Law	152 & 153	8,306	7,147
		XLVIII	Medicine	154 & 155	52,172	49,290
		XLIX	Instruction ...	156	26,939	16,988
		L	Literature and the Arts and Sciences.	157 to 160	28,025	31,215
	IX. Persons living on their income.	LI	Persons living principally on their income.	161	6,967	7,285
			Total ...	...	445,846	452,481

The 455,896 persons supported by the occupations and professions of this class comprise 3·7 per cent. of the total population. The "Public Force" and "Public Administration" support ·66 and ·86 per cent. of the population respectively. Over one half of the 2·12 per cent. supported by the "Professions and Liberal Arts" are allotted to order 46 "Religion", to which 1·16 per cent. of the population belong. Law supports but 7 persons out of every thousand of the population. Medicine with ·44 per cent. supports approximately twice the population dependent on "Instruction". The population concerned with Literature and Science and Art comprises a miscellany of public scribes and stenographers, of architects, surveyors and engineers and their employès, of authors, photographers, artists, sculptors, astronomers, meteorologists, botanists, and astrologers, and of music composers and masters, players on all kinds of musical instruments, singers, actors and dancers. These are distributed into four groups (157 to 160) which may be briefly termed the clerical, the scientific, the artistic and the musical. The marginal statement shows the actual distribution of the population concerned among the four groups.

Sub-Class.		Population.	
Number.	Occupation.	Actual.	Per cent.
VI	Public Force	79,495	·66
VII	Public Administration ...	103,108	·86
VIII	Professions and Liberal Arts.	256,276	2·12
IX	Persons living on their income.	6,967	·06
Class C	Public Administration and Liberal Arts.	455,896	3·70

Professions and Liberal Arts.		
Order.	Occupation.	Per cent.
46	Religion	1·16
47	Law	0·7
48	Medicine	·44
49	Instruction	·22
50	Letters, Arts and Science.	·23
	Professions and Liberal Arts.	2·12

Letters, Arts and Science.		
Group.	Occupation.	Population
157	Clerical	1,866
158	Scientific	3,998
159	Artistic	5,666
160	Musical	16,495
	Total ...	28,025

389. Buddhist Priest or Monk.—The authorised designations of occupational groups 148 and 149 are "Priests, ministers, etc." and "Religious mendicants, inmates of monasteries, etc." respectively. It was originally intended to follow the precedent of previous census classifications and include the members of the Buddhist religious orders under the second of these two groups. It has always been assumed that as the Buddhist pôngyi was professedly a religious mendicant, and also the inmate of a monastery there was a double reason for his inclusion in a group which specified two of his distinguishing characteristics. But neither "monk" nor "religious mendicant" nor "inmate of a monastery" is a sufficiently correct designation of the Buddhist pôngyi to be accepted without question. Enquiries among a few Buddhists revealed the fact that there is not unanimity on the question, but that

the term "priest" seemed to be the most correct rendering. "Religious mendicant" places too much stress on what is after all only a method of remuneration for services rendered; and "Inmate of monastery" is but a passive criterion by which to determine the function of a class of such active and potent influence as the religious orders in Burma. Sir George Scott, in the following quotations from his standard work, describes the nature and position of the various orders, but appears to minimise the extent of their influence and functions:—

"In the Lord Buddha's time, when a man adopted the faith, the requisites were belief in his teaching, a willingness to live in poverty and chastity, and under strict rules. All the applicant had to do was to renounce the ordinary pursuits of life, give up all his goods, take the vows, and he was forthwith a member of the Then-ga. From that time forward he lived in poverty, was dependent upon alms for his food, and upon charity for a shelter for his head; he was a *behkkhoo*, a mendicant, and only those who were such were Buddhists. But as the believers increased, it was evident that all could not wholly adopt the religious life. Many had faith, but not faith enough to support them in the strict rule of the society and soon Buddhists became divided into the two classes of laymen who adopted and believed in the religious tenets, and the religious who abandoned the world entirely, and strove only to lead the higher life. Hence also rose the hierarchy of the order, which exists to a certain extent in Burma, though very far from approaching the completeness of the system of Thibet, where there is a pontifical court, an elective sacerdotal chief, and a college of superior Lamas. In this respect, however, Burman Buddhism is as much closer to the primitive order in polity as it is in exact observance of the ordinations of the Weenee. Theoretically, in the sacred assembly there are but three classes:

"The shin, the novice, who has put on the yellow robe without becoming a professed member of the order, and probably with no other desire than that of obtaining his 'humanity'. These are called ko-yins, moung-shins, and a variety of other names.

"The oo-pyin-sin, those who, having lived a certain time in the monastery, have been formally admitted to the assembly with a prescribed ceremony, whereby the tittle of yahan is solemnly conferred. These are the pyit-shin, or religious.

"Finally, there is the pohn-ghee, the 'Great Glory,' who by virtue of prolonged stay—ten years is the minimum—has proved his steadfastness and unflinching self-denial."

Also:—

"In his ordination, therefore, the pyin-sin takes upon himself no burden in the shape of a cure of souls. He is not a priest like the Christian minister, who undertakes to guide others to salvation. He has no trouble for his food; a pious and kindly population supplies him far beyond his requirements, and expects no service in return for this support. He has no sermons to prepare; it is not expected that he will preach the law, and when of his own accord he occasionally does give an exposition, it is not any feeble excogitation of his own but the thoughts and words of the Great Master himself, or of the highest and noblest of the men of old, that he delivers. His natural rest is never broken in upon by calls to administer consolation and comfort to the sick and the dying. Even his leisure is seldom interrupted to the present at the lost rites for the dead. He is not a minister of religion, and all he has to do is to seek his own deliverance and salvation. All that is compulsory on him is the observance of continence, poverty, and humility, with tenderness to all living things, abstraction from the world, and a strict observance of a number of moral precepts, all tending to inculcate these things."

But the difference between theory and practice is as great in Buddhism as in any other religion, and the mendicant practices of the members of the religious order are largely conventional only, as will be seen from the following extract from the same source:—

"Only the more austere abbots enforce the observance of the earlier asceticism. Certainly in the great majority of the kyoungs of Lower Burma there is a man, not a monk, called kappeeyadayaka, or supporter, who provides for them a much more delicate and better dressed meal than they would have if they ate of the miscellaneous conglomerate turned out of the alms-bowl. That indiscriminate mixture of rice, cooked and raw; peas, boiled and parched; fish, flesh, and fowl, curried and plain, usually wrapped separately, in plantain leaves; cocoanut cakes and cucumbers; mangoes and meat, is very seldom consumed in the larger towns at any rate, by any but the most rigidly austere. It is handed over to the little boys, the scholars of the community, or to any wanderers who may be sojourning in the kyoung, who eat as much of it as they can, and give the rest to the crows and pariah dogs. The abbot and the pyin-sin find a smoking hot breakfast ready prepared for them when they return from their morning's walk, and are ready to set to with healthy appetites."

Whatever the theoretical or conventional status of the pôngyi may be, it is obvious to that class such persons as religious mendicants is putting a strain on the meaning of the term.

It is also certain that the abandonment of the world and the limitation of the obligations of a member of the Buddhist religious orders to the search for his own deliverance and salvation, though theoretically correct, are far removed from actual practice. In the following quotation from paragraph 46 of the Census Report for 1901 which is headed "Power of the Priesthood in Burma" the actual,

as apart from the theoretical, position of the priesthood is forcibly presented.

"It is easy to understand that the attempt to inaugurate any form of Buddhism that did not afford a full measure of regard for the priesthood, must, in Burma, have been foredoomed to failure. The Upper Burma Gazetteer in the Chapter 'Religion and its Semblances' shows that there are few phenomena more striking than the prominent part taken by the pôngyis of Upper Burma in the political life of the past century. Their influence over the people on the one hand and the Government on the other is as great as that exercised by any priesthood whose doings have found a place in the annals of ecclesiastical polity. They have been described as holding the balance between the rulers and the ruled. So dominant a power were they in the land a score of years ago that when, with the annexation, the old order was changed and the priestly prestige was threatened by the new, which found no place for the monkish intermediary in its system, there were few more pertinacious and dogged opponents to the British rule in the new territory than the wearers of the yellow robe. Nor was it only in Upper Burma that the flame of revolt was fanned by the priesthood. In Tavoy, Tharrawaddy and Sandoway districts of the Lower Province, the pôngyis fomented disaffection in the early post-annexation days.

"All this active participation in things temporal is, as Sir George Scott points out, as little in keeping with the frigid precepts of the Great Law Giver as it would be with the pacific teachings of the Sermon on the Mount, and would not for a moment be countenanced by the laity, but for the fact now largely recognised that the Buddhism of the people, whose spiritual guides the pôngyis are, is of the lips only, and that inwardly in their hearts the bulk of them are still swayed by the ingrained tendencies of their Shamanistic forefathers, in a word are at bottom, animists, pure and simple."

Here, in addition to the use of the term in the heading of the paragraph quoted, the term "Priesthood" is used three times and the adjective "priestly" once in the course of a short paragraph. The member of a priesthood whose influence over the people on the one hand and the government on the other was as great as could be found in the annals of ecclesiastical polity, may in theory have abstracted himself from the world, but in practice is a person who cannot be truly classed as a religious mendicant, nor as merely the inmate of a monastery. The correct position of the "Upyin sin" and the "pôngyi" needs some more active term of designation. "Priest" may be open to some objections, but it is the nearest and the most natural equivalent in the scheme of classification, for the entry of a class, who form in the words of Mr. Lowis the "spiritual guides" of the people, and who perform the functions of the spiritual and general education of the children of the Buddhist community.

390. Miscellaneous Occupations.—The fourth and last class of occupations includes all those which will not fit in with the three first main classes, and has therefore been given the designation "Miscellaneous." It comprises three orders, "Domestic Service", "Insufficiently described occupations" and those which are "Unproductive". Domestic Service is naturally differentiated from other industries in being concerned with the personal convenience of individuals rather than with the provision of utilities for the community generally. Insufficiently described occupations necessarily defy inclusion in any definite division of a logical scheme, and unproductive occupations are also of special type, needing special treatment in classification. There is no economic significance in the grouping of these three sub-classes together into one class. They are simply occupations, defying association with others in any scheme of grouping, which have been included together into one class of "Miscellaneous Occupations" in order to round off the scheme of classification adopted. The three sub-classes comprise five orders and nine groups as shown in the following statement :—

Class.	Sub-class.	Order.		Groups.	Population supported.	
		Number.	Designation.		1911.	1901.
D Miscellaneous.	X. Domestic service.	LII	Domestic service ...	162 & 163	85,771	67,073
	XI. Insufficiently described occupations.	LIII	General terms which do not indicate a definite occupation.	164 to 167	429,399	416,101
	XII. Unproductive.	LIV	Inmates of Jails, Asylums and Hospitals.	168	8,500	11,804
		LV	Beggars, Vagrants, Prostitutes.	169	26,075	27,862
				Total ...	549,745	522,840

391. Insufficiently described occupations.—Despite every attempt to allot to the appropriate groups occupations not sufficiently definite to be inserted automatically in one or other of the divisions of the scheme of classification, there remains a population of 439,399 persons who could only be entered in one or other of the groups of order 53. These persons should be allotted amongst the occupations of sub-classes II to IV, *viz.*, Extraction of Minerals, Industry and Transport. Sub-class V (Trade) has its own unspecified group (number 135), and consequently does not contribute many persons to the order of general unspecified occupations (number 53). Neither do sub-classes II and IV make large contributions to this order. It is to the purely industrial sub-class (number III) that the majority of the entries of unspecified occupations of order 53 would be transferred if the requisite knowledge were available. The amount of disturbance can be seen by comparing the relative numbers of the two sub-classes concerned. Sub-class III contains 806,431 persons supported by industry. Sub-class XI contains 429,399 persons whose occupations, mostly industrial, have not been sufficiently defined for any determinate classification. It is obvious that the disturbance caused by the vagueness of the returns in the figures for the industrial population of the province amounts to a very high percentage of the whole. Despite careful and detailed instructions the number of such unspecified entries have increased rather than diminished since 1901.

General terms which do not indicate a definite occupation.

Group.	General terms.	Population.
164	Manufacturers, business men, etc.	10,852
165	Cashiers, accountants, etc.	58,873
166	Mechanics ...	8,240
167	Labourers and workmen.	351,434
Order 53	Total ...	429,399

392. General review of employment in Burma.—It has not been possible to effect a detailed and complete review of the occupations of the province in this Chapter. There are many influences which prevent the analysis of occupations from being as full and as satisfactory as it might conceivably have been made. Mention has already been made of the sources of error due to dual and mixed occupations and to the vagueness of entries in the original schedules. But did time and opportunity permit, these might have been partially rectified by a close and careful study of the original entries, with particular reference to the vernacular terms used, the locality of enumeration, and the religion, race, age and sex of the worker. Such a correction has been effected as far as the exigencies of time and staff would allow, but not to the extent to which it could have been profitably pursued. It is of the highest importance that the census statistics should be published at the earliest possible date after their compilation. The inconvenience resulting from such a delay in their publication as would be entailed by a careful re-check and reconsideration of the occupations recorded, would be far greater than the advantage obtained from a revision, if effected. The staff at the disposal of the Census Superintendent is at the best a haphazard collection of casual, clerical labour, unable to effect without the closest supervision any duties but those of the most routine nature. Any re-check or revision must therefore have been personal and the time and labour involved would have been inconsistent with the remaining demands on the Superintendent's time and energy.

The occupational statistics have therefore been presented with many of their initial defects of record still uncorrected. These principally lie in the direction of the large number of persons with indefinite and unspecified occupations. They render the statistics for "Industry" most defective, and they operate adversely to a somewhat less degree in the figures for the occupations grouped in the classes of "Transport", "Trade" and the "Extraction of Minerals". The extent of the defects are shown by the special returns from some of the large industries, and from the Burma Railways Company and the Postal and Telegraph Departments. In some respects the anomalies noticed are inherent, and represent the impossibility of reducing the vague, and mixed, and changing occupations of the population to conformity with a pre-arranged scheme. But, although if analysed in detail the figures for the 169 occupational groups may contain many anomalies, it is possible to deduce from the general returns a few broad and general conclusions as to the industrial life of the province. The first of these is the great and even the increasing importance of agriculture. Despite the contraction of credit due to various causes, despite the declining areas of available culturable waste land,

agriculture, and the industries which thrive on agricultural prosperity, show the greatest actual advance. The second important conclusion is that the expansion of agriculture is almost entirely the result of indigenous labour. Burma is by no means a self-sufficing country economically. It is dependent on Indian labour to a considerable extent for its "Industry", its "Transport" and its "Trade", more especially for the large disciplined industries connected with transport, and those congregated in its cities and towns. But the Indian cultivator is not a necessity for its agricultural development. In a few districts in the vicinity of Rangoon, largely owing to the financial necessities of the Burmese land holders, and to the financing of extensions of cultivation by Indian capital, Indian cultivators have gained a footing; and in the same area, partly owing to the shortness and the uncertainty of the indigenous supply of field labour, the Indian field coolie has established a position. But for the province as a whole, the grasp of its agriculture by the Burmese and allied races is as firm as at the previous census enumeration. The province is now in a stage of transition. Its rate of agricultural expansion has declined below the exceptionally high rate which had come to be regarded as normal, and the community is in the act of adjusting itself to the changing conditions. Other lines of advance, particularly in the directions of the development of the mineral resources of the province and the rubber industry, are being pursued. The oil industry has established itself, and promises, despite a decline in the yield of the principal oil field, to become an increasing factor in the industrial life of the province. The remaining mineral industries, though in a few cases the experimental stage has been passed, have yet to establish themselves as a permanent and important source of employment. The rubber industry, though still in its infancy, gives great promise for the future. The amount of waste land available for the growth of rubber is most extensive, being of a different nature from that required for the cultivation of paddy, and now that the first few initial plantations have been successful, rapid extensions of the area planted are being effected. Thus the decade closing with the census of 1911 coincides with an era of change in the industrial conditions of the province of Burma. It has witnessed the modification of a long continued expansion in one direction, and the first advances of progress in several other directions. Both movements are too recent for their permanent effects to be estimated. All that can be demonstrated at present are the nature of the changes, and the directions in which for the time being they are progressing.

SUBSIDIARY TABLE I—*General Distribution by Occupation.*

Class.	Sub-class.	Order.	Description.	Number per 10,000 of total population.		Percentage in each class, sub-class and order of		Percentage of actual workers employed		Percentage of dependents to actual workers	
				Persons supported.	Actual workers.	Actual workers.	Dependents.	In Cities.	In rural Areas.	In Cities.	In rural Areas.
1	1(a)	1(b)	1(c)	2	3	4	5	6	7	8	9
A.			All Industries	10,000	3,588	56	44	4	96	62	80
			Production of raw materials	7,176	3,966	55	45	...	100	81	81
	I	...	Exploitation of the surface of the earth ...	7,163	3,959	55	45	...	100	80	81
		1	Pasture and Agriculture	7,037	3,896	55	45	...	100	82	81
		1(a)	Ordinary cultivation	6,714	3,704	55	45	...	100	105	81
		1(b)	Growers of special products and market gardening.	198	114	57	43	2	98	39	75
		1(c)	Forestry	36	19	54	46	1	99	73	85
		1(d)	Raising of firm stock	88	58	66	34	1	99	71	51
		1(e)	Raising of small animals (birds, bees, silkworms, etc.).	1	1	61	39	46	54	45	75
		2	Fishing and Hunting	126	63	50	50	1	99	65	99
	II	...	Extraction of Minerals	13	7	57	43	...	100	170	74
		3	Mines	7	4	65	35	...	100	217	53
		4	Quarries in hard rocks	3	2	53	47	...	100	100	90
		5	Salt	3	1	44	56	...	100	....	127
B.	III	...	Preparation and supply of material substances	1,997	1,147	57	43	12	88	66	75
		...	Industry	670	390	58	42	15	85	61	74
		6	Textiles	129	93	73	27	7	93	22	39
		7	Hides, skin and hard materials from the animal kingdom.	1	...	47	53	59	41	98	139
		8	Wood	159	79	50	50	11	89	103	101
		9	Metals	23	14	46	54	17	83	105	118
		10	Ceramics	16	9	60	40	7	93	41	68
		11	Chemical products properly so called and analogous.	9	5	61	39	12	88	29	67
		12	Food Industries	148	87	59	41	24	76	39	80
		13	Industries of dress and toilet	96	57	60	40	19	81	65	67
		14	Furniture Industries	1	2	85	15	18	82	63	8
		15	Building Industries	20	11	57	43	19	81	75	77
		16	Construction of means of transport ...	2	1	55	45	40	60	71	87
		17	Production and transmission of Physical forces	...	...	40	60	85	15	164	73
		18	Industries of luxury and those pertaining to literature and the arts and sciences.	49	24	48	52	21	79	103	110
		19	Industries concerned with refuse matter ...	11	7	63	37	31	69	46	64
	V	...	Transport	327	188	57	43	13	87	44	79
		20	Transport by water	109	63	57	43	19	81	23	86
		21	Transport by road	101	108	56	44	8	92	62	79
		22	Transport by rail	23	15	66	34	21	79	57	49
		23	Post office, Telegraph and Telephone services ...	4	2	52	48	22	78	99	90
	V	...	Trade	1,000	569	57	43	8	92	81	75
		24	Banks, establishments of credit exchange and Insurance.	15	8	52	48	12	88	138	84
		25	Brokerage, commission and export ...	18	8	42	58	36	64	110	152
		26	Trade in Textile	62	36	59	41	11	89	77	70
		27	Trade in skin, leather and furs	1	1	44	56	24	76	124	127
		28	Trade in wood	18	9	48	52	25	75	59	127
		29	Trade in metals	1	1	59	41	15	85	64	70
		30	Trade in pottery	9	5	60	40	1	99	38	68
		31	Trade in Chemical products	2	1	49	51	5	95	68	111
		32	Hotels, cafes, restaurants, etc.	18	11	59	41	21	79	66	70
		33	Other trade in food stuffs	427	235	55	45	9	91	86	81
		34	Trade in clothing and toilet articles ...	6	3	60	40	42	58	60	71
		35	Trade in furniture	11	7	59	41	7	93	143	66
		36	Trade in building materials	3	2	68	32	3	97	84	46
		37	Trade in means of transport	13	7	55	45	6	94	143	78
		38	Trade in fuel	9	4	55	45	14	86	91	79
		39	Trade in articles of luxury and those pertaining to letters and the arts and sciences ...	9	... 4	49	51	39	61	86	116
		40	Trade in refuse matter	...	2	35	65	82	18	50	750
		41	Trade of other sorts	378	226	60	40	4	96	81	67
C.	VI	...	Public administration and Liberal Arts ...	370	191	52	48	12	88	84	95
		...	Public Force	65	35	53	47	19	81	46	100
		42	Army	21	15	75	25	31	69	27	36
		43	Navy	...	...	39	61	100	...	145	...
		44	Police	45	19	42	58	10	90	93	140
	VII	45	Public administration	86	34	39	61	17	83	106	164
	VIII	...	Professions and Liberal Arts	212	120	56	44	8	92	89	76
		46	Religion	116	75	64	36	7	93	47	57
		47	Law	7	3	39	61	13	87	234	142
		48	Medicine	44	21	48	52	8	92	124	106
		49	Instruction	22	10	47	53	9	91	151	110
		50	Letters and Arts and Sciences	23	11	48	52	13	87	116	106
	IX	51	Persons living on their income	6	2	38	62	19	250	...	140
D.	X	...	Miscellaneous	457	285	62	38	18	82	42	66
		52	Domestic service	71	49	69	31	36	64	33	53
	XI	53	Insufficiently described occupation ...	357	214	60	40	18	82	49	10
	XII	...	Unproductive	29	22	76	24	18	82	14	35
		54	Inmates of jails, asylums and hospital ...	7	7	95	5	35	65	2	7
		55	Beggars, vagrants and prostitutes	22	15	70	30	11	89	30	44

SUBSIDIARY TABLE II.—*Distribution by Occupation in Natural Divisions.*

Sub-class.	Order.	Description.	Number per mille of Total Population supported in				
			Central Basin.	Deltaic Plains.	Northern Hill Districts.	Coast Ranges.	Specially Administered Territories.
1(a)	1(b)	1(c)	2	3	4	5	6
I	...	Exploitation of the surface of the earth.	687	713	725	758	763
	1	Pasture and Agriculture	679	696	711	736	759
	1(*a*)	Ordinary cultivation ...	658	662	674	706	700
	1(*b*)	Growers of special products and market gardening.	9	22	22	20	42
	1(*c*)	Forestry	3	5	6	2	2
	1(*d*)	Raising of Farm Stock ...	9	7	9	8	15
	1(*e*)	Raising of small animals (birds, bees, silkworm, etc.).	...	...	...	...	...
	2	Fishing and Hunting ...	8	17	14	22	4
II	...	Extraction of Minerals ...	1	...	6	2	1
III	...	Industry	85	59	42	55	64
	8	Wood	19	16	15	15	8
	9	Metals	3	3	1	3	2
	12	Food Industries	21	13	8	11	9
	13	Industries of dress and the toilet.	12	10	9	7	6
IV	...	Transport	35	34	40	31	21
V	...	Trade	99	114	92	78	86
	32	Hotels, Cafes, Restaurants, etc.	2	2	2	1	2
	33	Other Trade in Food Stuffs	45	46	39	33	38
	41	Trade of other sorts ...	32	51	30	31	27
VI	...	Public Force	8	5	16	5	5
VII	...	Public administration ...	8	9	10	7	10
VIII	...	Professions and liberal arts	25	19	24	17	22
IX	...	Persons living on their income.	...	1	...	1	...
X	...	Domestic Service ...	6	9	7	6	5
XI	...	Insufficiently described occupations.	41	35	36	38	21
XII	...	Unproductive	4	2	2	2	2

SUBSIDIARY TABLE III.—*Distribution of the agricultural, industrial,*

District and Natural Division.	Agriculture.				Industry (includ	
	Population supported by agriculture.	Proportion of agricultural population per 1,000 of district population.	Percentage of agricultural population of		Population supported by industry.	Proportion of industrial population per 1,000 of district population.
			Actual workers.	Dependents.		
1	2	3	4	5	6	7
Province	83,22,223	692	55	45	821,724	68
I.—Central Basin	*2,746,505*	*667*	*57*	*43*	*351,909*	*86*
Prome	271,140	716	59	41	26,056	69
Thayetmyo	188,449	759	49	51	11,436	46
Pakôkku	287,625	702	54	46	37,012	90
Minbu	185,993	705	55	45	18,622	71
Magwe	243,390	768	57	43	14,838	45
Mandalay	119,827	352	55	45	54,768	161
Shwebo	266,538	748	63	37	19,900	56
Sagaing	216,740	694	57	43	23,513	75
Lower Chindwin	186,820	591	58	42	42,268	134
Kyauksè	81,358	575	60	40	15,601	112
Meiktila	173,778	621	62	38	22,184	79
Yamèthin	230,308	749	48	52	14,706	48
Myingyan	294,539	667	64	36	50,765	115
II.—Deltaic Plains	*2,964,576*	*686*	*51*	*49*	*267,675*	*59*
Rangoon	7,843	27	53	47	80,000	273
Hanthawaddy	363,925	675	42	58	37,515	70
Tharrawaddy	337,031	778	57	43	12,714	29
Pegu	311,739	726	44	56	16,054	37
Bassein	324,769	736	55	45	19,232	43
Henzada	393,806	740	60	40	24,916	47
Myaungmya	248,845	743	54	46	13,076	39
Ma-ubin	202,528	664	57	43	13,656	45
Pyapôn	182,168	711	49	51	10,004	39
Thatôn	331,366	795	48	52	16,938	41
Toungoo	260,545	756	47	53	13,570	39
III.—Northern Hill Districts	*461,407*	*696*	*61*	*39*	*31,958*	*48*
Bhamo	77,904	723	61	39	4,440	41
Myitkyina	63,529	742	75	25	1,700	20
Katha	154,363	779	55	45	8,882	45
Ruby Mines	48,884	486	66	34	7,329	73
Upper Chindwin	116,727	684	59	41	9,607	56
IV.—Coast Ranges	*1,089,471*	*725*	*52*	*48*	*85,692*	*57*
Akyab	385,661	728	54	46	32,412	40
Northern Arakan	21,076	948	66	34	69	3
Kyaukpyu	140,803	761	49	51	5,924	32
Sandoway	81,777	80	55	45	3,625	35
Salween	42,363	908	44	56	384	8
Amherst	254,435	691	50	50	24,060	71
Tavoy	92,106	606	47	53	13,989	103
Mergui	71,250	639	55	45	5,229	47
V.—Specially Administered Territories ...	*1,060,266*	*742*	*62*	*38*	*94,490*	*66*
Northern Shan States	330,038	796	62	38	16,005	39
Southern Shan States	613,300	686	62	38	78,287	88
Chin Hills	116,927	978	62	38	198	2
Rangoon and Mandalay Cities combined ...	*13,360*	*30*	*54*	*46*	*116,720*	*259*

commercial and professional Population in Natural Divisions and Districts.

ing mines).		Commerce.				Professions.			
Percentage of industrial population of		Population supported by Commerce.	Proportion of commercial population per 1,000 of district population.	Percentage of commercial population of		Population supported by profession.	Proportion of professional population per 1,000 of district population.	Percentage of professional population of	
Actual workers.	Dependents.			Actual workers.	Dependents.			Actual workers.	Dependents.
8	9	10	11	12	13	14	15	16	17
59	41	1,597,373	133	57	43	256,276	21	56	44
55	*45*	*550,018*	*134*	*57*	*43*	*102,451*	*24*	*58*	*42*
61	39	50,690	131	58	42	7,083	19	50	50
51	49	25,844	104	54	46	4,694	19	40	60
58	42	44,608	124	58	42	7,379	18	52	48
59	41	33,063	125	61	39	6,272	24	59	41
53	47	30,059	95	53	47	5,820	18	40	60
58	42	86,440	254	57	43	12,953	38	64	36
52	48	38,365	108	55	45	9,700	27	53	37
57	43	39,071	125	60	40	8,755	28	66	34
46	54	48,275	153	59	41	8,614	27	66	34
67	33	24,865	176	58	42	4,415	31	72	28
57	43	45,501	163	54	46	10,654	38	61	39
53	47	34,419	112	49	51	5,780	18	64	36
51	49	48,818	110	57	43	10,332	23	55	45
58	*42*	*644,774*	*149*	*57*	*43*	*80,540*	*18*	*54*	*46*
63	37	94,115	321	60	40	13,555	46	47	53
60	40	82,856	154	51	49	9,661	18	54	46
57	43	48,309	111	57	43	6,950	16	60	40
54	46	63,047	147	56	44	7,906	18	53	47
57	43	61,579	140	59	41	5,787	13	48	52
54	46	69,751	131	57	43	9,945	19	57	43
52	48	49,385	147	57	43	4,572	14	55	45
58	42	49,772	163	56	44	4,123	13	57	43
51	49	37,139	145	56	44	4,649	18	63	37
51	49	42,250	101	56	44	6,538	16	58	42
51	49	46,571	133	52	48	6,854	19	47	53
57	*43*	*87,259*	*132*	*58*	*42*	*15,659*	*24*	*49*	*51*
54	46	12,360	115	59	41	1,868	17	49	51
57	43	8,377	98	68	32	847	10	40	60
50	50	18,489	93	57	43	5,941	30	44	56
65	35	24,793	246	55	45	2,009	20	61	39
58	42	23,240	136	59	41	4,994	29	50	50
66	*49*	*163,258*	*109*	*58*	*42*	*25,675*	*17*	*54*	*46*
92	8	66,848	126	63	37	8,779	17	57	43
90	10	11,967	16	69	31	63	3	30	70
59	41	2,876	78	56	44	2,595	14	52	48
54	46	8,472	82	58	42	1,565	15	44	56
52	48	1,755	37	59	41	302	6	51	49
51	49	47,406	128	52	48	8,020	22	55	45
67	33	13,037	96	54	46	2,566	19	52	48
51	49	10,897	97	55	45	1,785	16	54	46
57	*43*	*152,064*	*106*	*60*	*40*	*31,951*	*22*	*59*	*41*
62	38	41,393	100	59	41	8,266	19	68	32
67	33	110,176	123	61	39	23,567	26	57	43
52	48	495	4	62	38	118	1	52	48
62	*38*	*147,561*	*327*	*59*	*41*	*21,276*	*47*	*53*	*47*

SUBSIDIARY TABLE IV.—*Occupations combined with agriculture (where agriculture is the Subsidiary Occupation).*

Sub-class.	Order.	Occupation.	Number per mille who are partially Agriculturists.					
			Province.	Central Basin.	Deltaic Plains.	Northern Hill District.	Coast Ranges.	Specially Administered Territories
1(a)	1(b)	1(c)	2	3	4	5	6	7
I	..	**Exploitation of the surface of the earth.**	4	3	3	7	1	9
	1 (*b*)	Growers of special products and market gardening.	80	71	55	129	24	137
	1 (*c*)	Forestry	47	62	48	50	21	85
	1 (*d*)	Raising of Farm stock ..	52	70	13	122	15	95
	1 (*e*)	Raising of small animals (birds, bees, silk-worm, etc.)	34	...	59	...	...	...
	2	Fishing and Hunting ...	43	70	29	99	18	112
II	...	**Extraction of minerals** ...	15	14	72	22	...	...
III	...	**Industry**	48	68	14	117	28	68
	8	Wood	55	49	27	144	75	134
	9	Metals	37	72	1	129	3	67
	12	Food Industry	62	107	6	127	21	117
	13	Industries of dress and the toilet.	47	66	9	75	15	49
IV	..	**Transport**	54	80	22	99	33	102
V	...	**Trade**	46	56	21	111	10	105
	32	Hotels, Cafes, Restaurants, etc.	84	130	8	159	3	132
	33	Other Trade in food stuffs ...	60	74	26	120	10	117
	41	Trade of other sorts ...	31	37	20	78	10	82
VI	...	**Public Force**	66	76	17	97	6	183
VII	...	**Public administration** ...	135	153	75	285	50	223
VIII	...	**Professions and liberal arts**	29	30	26	39	7	41
IX	...	**Persons living on their income**	30	38	12	176	7	35
X	...	**Domestic service** ...	19	18	5	107	5	96
XI	...	**Insufficiently described occupations.**	34	40	9	100	8	149
XII	...	**Unproduction** ...	18	27	1	28	...	49

SUBSIDIARY TABLE V.—*Occupations combined with agriculture (where agriculture is the principal occupation).*

Land Lords (Rent Receivers).		Cultivators (Rent Payers).		Farm servants and field labourers.	
Subsidiary occupation.	Number per 10,000 who follow it.	Subsidiary occupation.	Number per 10,000 who follow it.	Subsidiary occupation.	Number per 10,000 who follow it.
1	2	3	4	5	6
All Subsidiary Occupations.	1,077		804		798
Rent Payers, Cultivators.	323	Rent Receivers ...	23	Rent Receivers ...	16
Agricultural Labourers	56	Agricultural labourers...	280	Rent Payers ...	110
Cart Owners and Cartmen	49	General labourers ...	105	General labourers ...	118
Money Lenders and Gram Dealers.	81	Money-lenders and Gram Dealers	13	Rice Pounders and Rice Mill Coolies	151
Other Traders of all kinds	145	Other Traders of all kinds	53	Others Traders of all kinds.	57
Fishermen, Boat Owners and Boatmen.	50	Fishermen, Boat owners and Boatmen.	35	Fishermen, Boatowners and Boatmen.	96
Cattle Breeders, Owners Dealers, Milkmen and Butchers.	16	Cartmen and Transport workers.	13	Cartmen and Transport workers.	17
Clerks of all kinds (Not Government.)	38	Cattle Breeders, Owners and Milkmen and Butchers.	26	Cattle Breeders, Owners and Dealers, Milkmen and Butchers.	20
School Masters, Teachers, and Lawyers.	39	Village watchmen ...	6	Village Watchmen ...	3
Doctors	5	Weavers	41	Weavers ...	24
Goldsmith, Jewellers, Pearl Fishers, etc.	10	Potters	6	Potters ...	4
Blacksmith, Tinsmith, Carpenters.	...	Oil Presses ...	8	Blacksmith, Tinsmith and Carpenters.	14
Other Occupations ...	265	Blacksmith, Tinsmith, and Carpenters.	15	Other Occupations ...	168
		Other Occupations ...	180		

SUBSIDIARY TABLE VI.—*Occupation of females by sub-classes and selected orders and groups.*

Sub-class.	Order.	Group.	Occupations.	Number of actual workers.		Number of females per 1,000 males.
				Males.	Females.	
1(a)	1(b)	1(c)	2	3	4	5
			All Industries	**3,813,666**	**2,913,743**	**764**
A	...	..	**Production of Raw Materials**	**2,622,348**	**2,153,325**	**821**
B	...	...	**Preparation and supply of material substances**	**746,832**	**632,683**	**847**
C	...	...	**Public Administration and Liberal Arts**	**200,019**	**29,839**	**149**
D	..	...	**Miscellaneous**	**244,467**	**97,896**	**400**
I	...	...	**Exploitation of the Surface of the Earth**	**2,615,932**	**2,150,953**	**822**
	1	..	Pasture and Agriculture	2,567,202	2,123,276	827
	1(*a*)	...	Ordinary cultivation	2,434,999	2,024,772	832
		1	Income from Rent of Agricultural Land	59,921	68,997	1,151
		2	Ordinary Cultivators	1,858,632	1,559,824	839
		4	Farm servants and field labourers	516,415	395,944	767
	1(*b*)	...	Growers of special products and market gardening	68,447	68,274	997
		5	Tea, coffee, cinchona, indigo, and rubber plantations	3,848	189	49
		6	Fruit, flower, vegetable, betel-vine, areca nut, etc., growers ...	64,599	68,085	1,053
	1(*c*)	..	Forestry	12,507	10,599	847
		8	Wood cutters, firewood, lac, cutch and rubber collectors and charcoal burners.	10,881	10,465	962
	1(*d*)	..	Raising of farm stock	50,884	19,109	376
		11	Breeders of other animals (horses, mules, etc.)	...	11	...
		12	Herdsmen, shepherds, goatherds, etc.	45,884	16,296	355
		13	Raising of small animals (birds, bees, silkworms, etc.) ...	365	522	1,430
II	...	...	**Extraction of Minerals**	**6,416**	**2,372**	**369**
	3	...	Mines	4,682	639	136
		16	Coal mines and petroleum wells	1,879	250	133
	4	18	Quarries and hard rocks. Other minerals (jade, rubies, limestone, etc.)	781	1,267	1,622
	5	...	Salt, etc.	953	466	489
		20	Extraction of saltpetre, alum, and other substances soluble in water.	...	...	...
III	...	...	**Industry**	**249,433**	**220,310**	**883**
	6	...	Textiles	9,123	103,316	11,325
		21	Cotton ginning, cleaning and pressing	373	514	1,378
		22	Cotton spinning, sizing and weaving	5,219	91,766	17,583
		24	Rope, twine, and string	418	379	907
		25	Other fibres (cocoanut, aloes, flax, hemp, straw, etc.)	10	4	400
		26	Wool carders and spinners, weavers of woollen blankets, carpets, etc.	23	1	43
		27	Silk spinners and weavers	3,047	10,616	3,484
		31	Other (lace, crape, embroideries, fringes, etc.), and insufficiently described textile industries.	5	32	6,400
	8	...	Wood	68,469	26,958	394
		37	Basket-makers and other industries of wooden material, including leaves.	14,188	15,131	1,066
	9	...	Metals	14,036	2,151	153
		38	Forging and rolling of iron and other metals	33	143	4,333
	10	...	Ceramics	4,656	6,687	1,436
		47	Potters and earthern pipe and bowl makers	3,001	6,147	2,048
		49	Others (mosaic, talc, mica, alabaster, etc., workers) ..	5	46	9,200
	11	...	Chemical products properly so called and analogous ...	4,502	1,990	442
		54	Manufacture of paper, cardboard and papier mache	...	56	...
		55	Others (soap, candles, lac, cutch, perfumes and miscellaneous drugs).	387	389	1,005
	12	...	Food Industries	59,889	44,845	749
		56	Rice pounders and huskers and flour grinders	43,020	28,745	668
		58	Grain parchers, etc., ...	31	...	...
		60	Fish curers	...	13	...
		62	Makers of sugar, molasses and gur	684	5,378	7,863
		63	Sweetmeat makers, preparers of jam and condiments, etc., ...	532	742	1,394
		65	Toddy drawers	11,301	904	80
		66	Manufactures of tobacco, opium, and ganja	1,162	7,359	6,333
	13	...	Industries of dress and the toilet	45,886	23,830	519
		68	Tailors, milliners, dress makers and darners, embroiderers on linen.	25,083	10,702	427
		71	Washing, cleaning and dyeing	9,706	4,949	510
		73	Other industries connected with the toilet (tattooers, shampooers, bath houses, etc.)	2,707	4,633	1,711

SUBSIDIARY TABLE VI.—*Occupation of females by sub-classes and selected orders and groups*—concluded.

Sub-class.	Order.	Group.	Occupations.	Number of actual workers.		Number of females per 1,000 males.
				Males.	Females.	
1(a)	1(b)	1(c)	2	3	4	5
	18		Industries of luxury and those pertaining to literature and the arts and sciences.	23,454	4,802	205
		87	Makers of musical instruments	15	249	16,600
		90	Makers of bangles, rosaries, bead and other necklaces, spangles, lingams and sacred threads.	168	404	2,405
	19	93	Industries concerned with refuse matters (sweepers, scavengers, dust and sweeping contractors.)	6,667	1,604	241
IV	...	...	**Transport**	181,734	43,944	242
	21		Transport by road	96,076	33,439	348
		98	Persons employed on the construction and maintenance of roads and bridges.	42,516	16,960	399
	22		Transport by rail	17,665	717	41
		104	Labourers employed on railway construction	2,911	103	35
V	...	...	**Trade**	315,665	363,429	1,167
	26	108	Trade in textiles (trade in piecegoods wool, cotton, silk, hair and other textiles).	21,006	22,811	1,085
	29	111	Trade in metals (machinery, knife, tool, etc., sellers)	444	528	1,189
	30	112	Trade in pottery	2,425	3,784	1,560
	32		Hotels, cafes, restaurants, etc	9,335	3,445	369
		114	Vendors of wine, liquors, ærated water, etc.	6,501	1,990	306
	33		Other trade in food stuffs	113,579	169,795	1,495
		116	Fish dealers	22,420	38,655	1,724
		117	Grocers and sellers of vegetable oil, salt, and other condiments	9,398	9,630	1,025
		118	Sellers of milk, butter, ghee, poultry, eggs, etc....	4,456	1,837	412
		119	Sellers of sweetmeats, sugar, gur and molasses	17,902	38,634	2,158
		120	Cardamon, betel-leaf, vegetables, fruit and areca nut sellers ...	25,849	41,963	1,623
		121	Grain and pulse dealers	27,908	26,895	964
		122	Tobacco, opium, ganja, etc., sellers	3,906	10,336	2,646
		124	Dealers in hay, grass, and fodder	1,567	1,756	1,121
	35		Trade in furniture	4,487	3,445	767
		126	Trade in furniture, carpets, curtains and bedding	1,905	2,277	1,195
	36	128	Trade in building materials (stones, bricks, plaster cement, sandtiles, thatch, etc).	891	1,180	1,324
	38	130	Trade in fuel (dealers in firewood, charcoal, coal, cowdung, etc.)	3,738	2,224	595
	39		Trade in articles of luxury and those pertaining to letters and the arts and sciences.	3,883	1,488	383
		132	Dealers in common bangles, bead, necklaces, fans, small articles, toy, hunting, etc.	236	246	1,042
	41		Trade of other sorts	122,916	149,466	1,216
		135	Shop-keepers, otherwise unspecified	121,031	149,010	1,231
		136	Itinerant traders, pedlars, hawkers, etc, ...	260	28	108
		137	Conjurors, acrobats, fortune-tellers, reciters, exhibitors of curiosities and wild animals.	1,447	422	292
VI	...	...	**Public Force**	40,188	1,717	43
VII	...	...	**Public Administration**	36,238	4,394	121
VIII	...	...	**Professions and Liberal Arts**	121,417	23,235	191
	46		Religion	79,102	11,087	140
		149	Religious mendicants, inmates of monasteries, etc.	1,925	5,270	2,738
	48		Medicine	18,769	6,341	338
		155	Midwives, vaccinators, compounders, nurses, masseurs, etc. ...	649	907	1,398
	50		Letters and arts and sciences	10,854	2,638	243
		160	Music composers and masters, players on all kinds of musical instruments, singers, dancers, etc.	6,649	1,967	296
IX	...	...	**Persons living on their income**	2,176	493	226
X	52	...	**Domestic service**	47,816	10,987	230
		162	Cooks, water carriers, doorkeepers, watchmen and other indoor servants.	45,153	10,862	141
XI	53	...	**Insufficiently described occupations**	180,246	76,922	427
		167	Labourers and workmen otherwise unspecified	149,251	74,320	498
XII	...	...	**Unproduction**	16,405	9,987	609
	55	169	Beggars, vagrants, prostitutes (procurers, receivers of stolen goods, cattle poisoners, etc).	8,353	9,943	1,190

SUBSIDIARY TABLE VII.—*Selected Occupations*, 1911 *and* 1901.

Sub-class.	Order.	Group.	Occupations.	Population supported in 1911.	Population supported in 1901.	Percentage of variation.
1(a)	1(b)	1(c)	2	3	4	5
			All Industries	**12,039,083**	**10,363,613**	**+ 16**
I	...	...	**Exploitation of the surface of the earth**	**8,624,395**	**7,084,339**	**+ 22**
	1	...	Pasture and Agriculture	8,472,391	6,950,359	+ 22
	1(a)	...	Ordinary cultivation	8,083,712	6,460,934	+ 25
		1	Income from rent of Agricultural Land	2,20,485	7,13,508	− 69
		2	Ordinary cultivation	6,215,154	420,896	+ 337
		3	Agents, managers of landed estates, clerks, and rent collectors, etc.	123	3,658	− 97
	...	4	Farm servants and field labourers	1,647,950	4,322,872	− 62
	1(b)	...	Growers of special products and market gardening ...	238,511	385,528	− 38
		5	Tea, coffee, cinchona, indigo and rubber plantations ...	6,217	21,120	− 70
		6	Fruit, flower, vegetable, betal vine, areca nut, etc., growers.	232,294	364,408	− 36
	1(c)	...	Forestry	42,765	36,345	+ 17
		8	Wood cutters, firewood, lac, cutch and rubber collectors and charcoal burners.	37,649	32,201	+ 17
	1(d)	...	Raising of farm stock	105,944	67,527	+ 57
		9	Cattle and buffalo breaders and keepers	2,645	5,900	− 55
		10	Sheep, goat and pig breeders	12,232	3,403	+ 259
		11	Breeders of other animals (horses, mules, etc.)	35	473	− 93
		12	Herdsmen, shepherds, goat-herds, etc.	91,032	57,751	+ 58
	1(e)	...	Raising of small animals (birds, bees, silkworms, etc.) ...	1,459	25	+ 5,736
	2	...	Fishing and Hunting	152,004	133,980	+ 13
		14	Fishing	151,601	127,036	+ 19
		15	Hunting	403	6,944	− 94
II	...	...	**Extraction of minerals**	**15,93**	**6,797**	**+ 125**
	3	...	Mines	8,173	881	+ 828
	4	...	Quarries of hard rocks	3,896	470	+ 729
	5	...	Salt, etc.	3,224	5,446	− 41
III	..	...	**Industries**	**806,431**	**1,028,022**	**− 22**
	6	...	Textiles	155,050	295,985	− 48
		21	Cotton ginning, cleaning and pressing	2,282	3,104	− 26
		22	Cotton spinning, sizing and weaving	132,737	243,670	− 46
		23	Jute spinning, pressing, and weaving	...	79	...
		24	Rope, twine and string	1,241	7,528	− 84
		26	Wool carders and spinners, weavers of woollen blankets, carpets, etc.	46	509	− 12
		27	Silk spinners and weavers	18,621	34,104	− 45
		30	Dyeing, bleaching, printing, preparation and sponging of textiles.	62	6,237	− 99
	7	...	Hides, skins and hard materials from the animal kingdom.	624	1,813	− 66
		32	Tanners, curriers, leather dressers, leather dyers, etc. ...	161	648	− 75
		33	Makers of leather articles, such as trunks, water bags, etc.	207	1,037	− 80
		34	Furriers	5	..	...
		35	Bone, ivory, horn, shell, etc., workers	251	128	+ 96
	8	...	Wood	191,686	185,549	+ 3
		36	Sawyers, carpenters, turners and joiners, etc.	143,719	148,498	− 3
		37	Basket makers and other industries of wooden material, including leaves.	47,967	37,051	+ 29
	9	...	Metals	34,912	40,579	− 14
		39	Plough and agricultural implement makers	3	95	− 97
		41	Other workers in iron and makers of implements and tools, principally or exclusively of iron.	29,040	29,838	− 3
		42	Workers in brass, copper and bell metal	554	3,333	− 83
	10	...	Ceramics	18,821	27,878	− 32
		47	Potters and earthern pipe and bowl makers	15,323	19,800	− 23
	11	...	Chemical products properly so called and analogous ...	10,560	18,680	− 43
		53	Manufacture and refining of vegetable and mineral oils ...	9,110	11,307	− 19
	12	...	Food industries	178,255	230,650	− 23
		56	Rice pounders and huskers and flour grinders	110,623	101,337	+ 9
		57	Bakers and biscuit makers	1,234	2,278	− 46
		58	Grain parchers, etc.	94	142	− 34
		59	Butchers	6,897	9,517	− 28
		60	Fish curers	20	...	...
		62	Makers of sugar, molasses and gur...	8,298	9,937	− 16
		63	Sweetmeat makers, preparer of jam and condiments, etc.	2,113	4,637	− 54
		64	Brewers and distillers	653	822	− 21

SUBSIDIARY TABLE VII.—*Selected Occupations*, 1911 *and* 1901—continued.

Sub-class.	Order.	Group.	Occupations.	Population supported in 1911.	Population supported in 1901.	Percentage of variation.
1 (a)	1 (b)	1 (c)	2	3	4	5
		65	Toddy drawers	35,152	70,918	— 50
	13	...	Industries of dress and the toilet	116,056	104,796	+ 11
		68	Tailors, milliners, dress-makers and darners, embroiderers on linen.	60,870	57,915	+ 5
		69	Shoe, boot and sandal makers	11,972	18,499	— 35
		71	Washing, cleaning and dyeing	23,742	8,873	+ 168
		72	Barbers, hairdressers and wig makers	4,877	3,293	+ 48
	14	...	Furniture industries	1,862	1,025	+ 82
	15	...	Building industries	24,257	53,592	— 56
		77	Excavators, plinth builders and well sinkers	269	903	— 70
		78	Stone and marble workers, masons and bricklayers	13,003	16,559	— 21
	16	...	Construction of means of transport	2,187	12,121	— 82
	17	...	Production and transmission of physical forces	180	230	— 22
	18	...	Industries of luxury and those pertaining to literature and the arts and sciences.	58,878	50,911	+ 16
		89	Workers in precious stones and metals, enamellers, imitation jewellery makers, gilders, etc.	50,232	43,420	+ 16
		90	Makers of bangles, rosaries, bead and other necklaces, spangles, lingams and sacred threads.	1,297	1,408	— 8
	19	93	Industries concerned with refuse matters	13,103	4,225	+ 210
IV	...	...	**Transport**	393,652	259,053	+ 52
	20		Transport by water	131,071	113,951	+ 15
		95	Shipowners and their employés, ship brokers, ship officers, engineers, mariners, and firemen.	11,539	10,446	+ 10
		96	Persons employed on the maintenance of streams, rivers and canals (including construction).	66	50	+ 32
		97	Boat owners, boatmen and tow men	118,771	100,942	+ 18
	21	...	Transport by road	230,168	128,215	+ 80
		98	Persons employed on the construction and maintenance of roads and bridges.	91,541	41,636	+ 120
		99	Cart owners and drivers, coachmen, stable boys, tramway, mail carriage, etc., managers and employés (excluding private servants).	132,099	74,520	+ 77
		100	Palki, etc., bearers and owners	149	127	+ 17
		101	Pack elephant, camel, mule, ass and bullock owners and drivers.	6,304	4,416	+ 43
		102	Porters and messengers	75	7,516	— 99
	22	...	Transport by rail	27,686	12,033	+ 130
		103	Railway employés of all kinds other than construction coolies.	22,633	11,933	+ 90
		104	Labourers employed on railway construction	5,053	100	+ 4,953
	23	105	Post Office, Telegraph and Telephone services	4,727	4,854	— 3
V	...	...	**Trade**	1,203,721	1,010,081	+ 19
	24	106	Banks, establishments of credit exchange and insurance	17,345	8,929	+ 94
	25	107	Brokerage, commission and export brokers	21,415	27,161	— 21
	26	108	Trade in textiles	74,875	45,450	+ 65
	27	109	Trade in skins, leather and furs	1,481	190	+ 679
	28	110	Trade in wood	21,988	30,629	— 28
	29	111	Trade in metals	1,644	1,339	+ 23
	30	112	Trade in pottery	10,386	6,963	+ 49
	31	113	Trade in chemical products	2,903	6,473	— 55
	32	...	Hotels, Cafés, Restaurant, etc.	21,651	20,691	+ 5
		114	Vendors of wine, liquors, aerated waters, etc.	14,474	11,223	+ 29
		115	Owners and managers of hotels, cookshop, sarais, etc., and their employés.	7,177	9,468	— 24
	33	...	Other trade in food stuffs	513,911	451,914	— 14
		116	Fish dealers	107,111	77,144	+ 39
		117	Grocers and sellers of vegetable, oil, salt and other condiments.	35,978	43,976	— 18
		118	Sellers of milk, butter, ghee, poultry, etc.	10,378	9,923	+ 4
		119	Sellers of sweetmeats, sugar, gur and molasses	108,839	106,148	+ 3
		120	Cardamom, betel-leaf, vegetables, fruit and areca nut sellers	117,309	90,964	+ 29
		121	Grain and pulse dealers	105,332	78,489	+ 34
		122	Tobacco, opium, ganja, etc., sellers	22,362	40,384	— 45
		123	Dealers in sheep, goats and pigs	1,058	371	+ 185
		124	Dealers in hay, grass and fodder	5,544	4,515	+ 23
	34	125	Trade in clothing and toilet articles	6,531	8,183	— 19
	35	...	Trade in furniture	13,496	7,158	+ 89
		127	Hardware, clothing, utensils, porcelain, crockery, glassware, bottles, articles for gardening, the cellar, etc.	6,359	4,654	+ 37
	36	128	Trade in building materials	3,057	4,942	— 38
	37	129	Trade in means of transport	15,661	26,223	— 40
	38	130	Trade in fuel	10,753	4,466	+ 141

SUBSIDIARY TABLE VII.—*Selected Occupations*, 1911 *and* 1901—concluded.

Sub-class.	Order.	Group.	Occupations.	Population supported in 1911.	Population supported in 1901.	Percentage of variation.
1(a)	1(b)	1(c)	2	3	4	5
	39	...	Trade in articles of luxury and those pertaining to letters and arts and sciences.	10,961	19,684	— 44
		131	Dealers in precious stones, jewellery (real and imitation), clocks, optical instruments, etc.	8,591	13,047	— 34
		132	Dealers in common bangles, bead, necklaces, fans, small articles, toys, hunting and fishing tackle, flowers, etc.	1,150	4,412	— 74
	40	...	Trade in refuse matter	94	...	...
	41	...	Trade of other sorts	455,569	339,686	+ 34
		135	Shop-keepers otherwise unspecified	450,939	328,970	+ 37
		138	Other traders (including farmers of pounds, toll and markets).	358	6,028	— 94
VI	...	...	**Public Force**	79,495	54,001	+ 47
	42	139	Army	24,984	16,619	+ 50
		140	Army (Native States)	...	64	— 100
	43	...	Navy	28	791	— 96
	44	...	Police	54,483	36,591	+ 49
		142	Police	54,266	36,591	+ 48
		143	Village Watchmen	217	...	+ 100
VII	45	...	**Public Administration**	103,108	138,169	— 25
		144	Service of the State	34,294	49,831	— 31
		145	Service of Native and Foreign State	2,976	8,414	— 65
		146	Municipal and other local (not village) service	4,174	6,711	— 38
		147	Village officials and servants other than watchmen ...	61,664	73,213	— 16
VIII	...	...	**Profession and Liberal Arts**	256,276	253,026	+ 1
	46	...	Religion	140,834	148,386	— 5
		148	Priests, ministers, etc.	128,642	1,017	+ 12,549
		149	Religious mendicants, inmates of monasteries, etc. ...	11,638	138,329	— 92
		150	Catechists, readers, church and mission service	434	6,446	— 93
		151	Temple, burial or burning ground service, pilgrim conductors, circumcisers.	120	2,594	— 95
	47	...	Law	8,306	7,147	+ 16
		152	Lawyers of all kinds, including kazis, law agents and mukhtiars.	6,079	3,976	+ 53
		153	Lawyers' clerks, petition-writers, etc.	2,227	3,171	— 30
	48	...	Medicine	52,172	49,290	+ 5
		154	Medical practitioners of all kinds including dentists, oculists and veterinary surgeons.	49,582	44,771	+ 11
		155	Midwives, vaccinators, compounders, nurses, masseurs, etc.	2,590	4,519	— 43
	49	156	Instruction	26,939	16,988	+ 59
	50	...	Letters, and arts and sciences	28,025	31,215	— 10
		159	Others (authors, photographers, artists, sculptors, astronomers, meteorologists, botanists, astrologers, etc.)	5,666	3,679	+ 54
		160	Music composers, masters and players, singers, actors and dancers.	16,495	18,082	— 9
IX	51	161	**Persons living principally on their income**	6,967	7,285	— 4
X	52	...	**Domestic Service**	85,771	67,073	+ 27
		162	Cooks, water-carriers, doorkeepers, watchmen, and other indoor servants.	82,197	59,202	+ 39
		163	Private grooms, coachmen, dog boys, etc.	3,574	7,871	— 55
XI	53	...	**Insufficiently described Occupations**	429,399	416,101	+ 3
		164	Manufacturers, business men and contractors otherwise unspecified.	10,852	5,882	+ 84
		165	Cashiers, accountants, book-keepers, clerks and other employés in unspecified offices, warehouses and shops.	58,873	16,630	+ 254
		167	Labourers and workmen, otherwise unspecified	351,434	392,654	— 10
XII	...	...	**Unproductive**	34,575	39,666	— 13
	54	168	Inmates of jails, asylums and hospitals	8,500	11,804	— 28
	55	169	Beggars, vagrants, prostitutes	26,075	27,862	— 7

SUBSIDIARY TABLE VIII—*Occupation by Religions.*

Class.	Sub-class.	Order.	Group.	Occupations.	Number per mille who are					
					Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.
				All Industries	863	52	32	35	17	1
A	...	...	...	**Production of raw materials**	887	62	11	23	17	...
B	...	...	...	**Preparation and supply of material substances**	831	29	65	65	9	1
C	...	...	...	**Public administration and liberal arts**	809	15	57	48	60	11
D	...	...	...	**Miscellaneous**	668	24	200	80	27	1
	I	...	...	**Exploitation of the surface of the earth**	887	62	11	23	17	...
		I		Pasture and Agriculture	886	63	11	23	17	...
		I (*a*)		Ordinary cultivation	886	64	10	23	17	...
			1	Income from rent of Agricultural land	840	103	9	32	16	...
			2	Ordinary cultivators	874	77	7	23	19	...
			4	Farm servants and field labourers	934	11	21	22	12	...
		I (*b*)	...	Growers of special products and market gardening	909	39	24	12	16	..
			6	Fruit, flower, vegetable, betel, vine, areca nut, etc., growers	923	40	9	12	16	...
		I (*c*)	...	Forestry	952	29	4	4	11	...
			8	Wood cutters; fire-wood, lac, catechu, rubber, etc., collectors, and charcoal burners.	960	31	3	2	4	...
		I (*d*)	...	Raising of farm stock	847	42	55	44	12	...
			9	Cattle and buffalo breeders and keepers	406	175	375	35	9	...
			10	Sheep, goat, and pig breeders	823	137	5	1	34	...
			12	Herdsmen, shepherds, goatherds, etc.	863	25	52	50	10	...
		2	...	Fishing and hunting	926	15	20	36	3	...
			14	Fishing	926	15	20	37	2	...
	II	...	...	**Extraction of minerals**	691	...	245	63	1	...
		3	...	Mines	459	...	436	104	1	...
		4	...	Quarries of hard rocks	925	...	47	26	2	...
		5	...	Salt, etc.	997	...	...	3	...	...
	III	...	...	**Industry**	846	26	73	49	6	...
		6	...	Textiles	973	4	15	8	...	...
			21	Cotton ginning, cleaning and pressing	256	4	603	137	...	...
			22	Cotton spinning, sizing and weaving	990	4	2	4	...	...
			27	Silk spinners and weavers	993	..	3	4	...	...
		8	..	Wood	932	37	14	15	2	...
			36	Sawyers, carpenters, turners and joiners, etc.	916	44	18	19	3	...
			37	Basket makers and other industries of woody materials including leaves.	980	12	2	5	1	...
		9	...	Metals	871	22	69	35	3	...
			41	Other workers in iron and makers of implements and tools, principally or exclusively of iron.	880	26	69	23	2	...
		10	47	Ceramics	860	...	112	26	2	...
			47	Potters and earthern pipe and bowl makers	978	...	15	6	1	...
		11	...	Chemical products, properly so called and analogous	235	...	530	228	7	...
			53	Manufacture and refining of vegetable and mineral oils	158	...	595	241	6	...
		12	...	Food industries	830	11	84	71	4	...
			56	Rice pounders and huskers and flour grinders	771	14	127	83	5	...
			59	Butchers	648	14	22	300	15	1
			62	Makers of sugar, molasses and gur	999	...	1	...	...	...
			63	Sweetmeat makers, preparers of jam and condiments, etc.	814	19	91	63	1	12
			65	Toddy drawers	995	...	3	2	...	...
		13	...	Industries of dress and the toilet	669	86	138	98	8	1
			68	Tailors, milliners, dress-makers and darners, embroiderers on linen	687	137	39	124	12	1
			69	Shoe, boot and sandal makers	778	81	119	18	3	1
			71	Washing, cleaning and dyeing	520	11	393	69	7	...
			72	Barbers, hairdressers and wig makers	38	39	545	369	5	4
		15	...	Building industries	794	6	73	118	8	1
			78	Stone, and marble workers, masons and bricklayers	751	7	95	144	1	2
		16	...	Construction of means of transport	732	23	143	68	34	...
		18	...	Industries of luxury and those pertaining to literature and the arts and sciences.	868	10	68	31	22	1
			89	Workers in precious stones and metals, enamellers, imitation jewellery makers, gilders, etc.	932	5	47	11	4	1
		19	93	Industries concerned with refuse matter	393	6	504	74	17	6
	IV	...	...	**Transport**	725	19	137	97	20	2
		20	...	Transport by water	761	13	55	152	18	1
			95	Ship owners and their employés, ship brokers, ships' officers, engineers, mariners and firemen.	122	51	163	489	175	...
			97	Boat owners, boat-men and tow-men	827	9	44	117	2	1
		21	...	Transport by road	782	24	127	60	6	1
			98	Persons employed on the construction and maintenance of roads and bridges.	687	37	220	47	8	1
			99	Cart owners and drivers, coachmen, stable boys, tramway, mail carriage, etc., managers and employés (excluding private servants).	851	16	67	62	3	1

SUBSIDIARY TABLE VIII.—*Occupation by Religions*—concluded.

Class.	Sub-class.	Order.	Group.	Occupations.	Number per mille who are					
					Buddhist.	Animist.	Hindu.	Mahomedan.	Christian.	Others.
			101	Pack elephant, camel, mule, ass and bullock owners and drivers ...	744	15	19	186	35	1
		22	...	Transport by rail	136	8	578	143	113	22
			103	Railway employés of all kinds other than construction coolies ...	137	9	567	148	119	20
			104	Labourers employed on railway construction...	135	3	628	118	88	28
		23	105	Post Office, Telegraph and Telephone services	371	5	328	107	186	3
	V	..	...	**Trade**	857	35	36	65	6	1
		24	106	Banks, establishments of credit, exchange and insurance	637	12	182	97	65	7
		25	107	Brokerage, commission and export	745	53	119	56	22	5
		26	108	Trade in textiles	795	36	33	132	3	1
		28	110	Trade in wood	839	25	80	45	10	1
		30	112	Trade in pottery	975	11	6	6	2	...
		31	113	Trade in chemical products	762	18	98	100	22	...
		32	...	Hotels, cafes, restaurants, etc.	655	144	79	108	8	6
			114	Vendors of wine, liquors, aerated waters, etc.	669	152	91	79	4	5
			115	Owners and managers of hotels, cookshops, sarais, etc., and their employés.	627	129	52	166	17	9
		33	...	Other trade in food stuffs	897	21	34	44	3	1
			116	Fish dealers	942	13	10	33	2	...
			117	Grocers and sellers of vegetable oil ; salt and other condiments ...	898	6	27	65	2	2
			118	Sellers of milk, butter, ghee, poultry, eggs, etc.	280	52	435	221	8	4
			119	Sellers of sweetmeats, sugar, gur and molasses	881	12	50	55	2	..
			120	Cardamon, betel-leaf, vegetables, fruit and areca nut sellers ...	910	36	16	34	4	...
			121	Grain and pulse dealers	913	25	22	35	4	1
			122	Tobacco, opium, ganja, etc., sellers	894	29	19	46	11	1
			124	Dealers in hay, grass and fodder	849	...	137	12	2	...
		34	125	Trade in clothing and toilet articles	869	74	13	36	6	2
		35	...	Trade in furniture	913	15	8	62	1	1
			127	Hardware, cooking utensils, porcelain, crockery, glassware, bottles, articles for gardening, the cellars, etc.	862	20	15	100	1	2
		36	128	Trade in building materials	953	7	12	27	1	...
		37	...	Trade in means of transport	764	64	27	142	3	...
		38	130	Trade in fuel	848	37	70	39	6	...
		39	...	Trade in articles of luxury and those pertaining to letters and the arts and sciences.	745	52	51	141	6	5
			131	Dealers in precious stones, jewellery (real and imitation), clocks, optical instrument, etc.	730	51	55	155	2	7
		41	...	Trade of other sorts	848	44	26	73	8	1
			135	Shopkeepers otherwise unspecified	851	44	24	73	7	1
	VI	...	...	**Public force**	575	16	154	126	74	55
		42	139	Army	114	11	310	246	176	143
		44	...	Police	787	18	83	70	28	14
			142	Police	786	18	83	70	28	15
	VII	45	...	**Public administration**	795	32	74	36	62	1
			144	Service of the State	646	6	188	62	124	4
			145	Service of Native and Foreign States	862	126	7	...	5	...
			146	Municipal and other local (not village) service	239	6	446	146	159	4
			147	Village officials and servants other than watchmen	913	43	6	15	23	...
	VIII	...	...	**Professions and liberal arts**	892	9	18	27	53	1
		46	...	Religion	940	10	5	16	29	...
			148	Priests, ministers, etc.	945	10	5	16	24	...
			149	Religious mendicants, inmates of monasteries, etc.	921	4	10	14	51	...
		47	...	Law	769	...	51	92	82	6
			152	Lawyers of all kinds, including kazis, law agents and mukhtiars ...	770	...	49	81	94	6
			153	Lawyers' clerks, petition writers, etc.	770	..	56	121	49	4
		48	...	Medicine	88	7	34	34	35	2
			154	Medical practitioners of all kinds, including dentists, oculists and veterinary surgeons.	901	6	31	34	26	2
			155	Midwives, vaccinators, compounders, nurses, masseurs, etc. ...	647	15	94	49	194	1
		49	156	Instruction	699	3	21	57	219	1
		50	...	Letters and arts and sciences	878	13	47	17	43	2
			159	Others (authors, photographers, artists, sculptors, astronomers, meteorologists, botanists, astrologers, etc.	887	36	39	10	25	3
			160	Music composers, masters and players, singers, actors and dancers	942	6	26	8	17	1
	IX	51	161	**Persons living principally on their income**	606	12	107	128	143	4
	X	52	...	**Domestic service**	427	26	320	150	74	3
			162	Cooks, water carriers, door-keepers, watchmen, and other indoor servants.	440	27	306	147	77	3
			160	Private grooms, coachmen, dog boys, etc.	126	2	644	218	10	...
	XI	53	...	**General terms which do not indicate a definite occupation**	702	23	189	66	19	1
			164	Manufacturers, business men and contractors otherwise unspecified	475	35	160	291	35	4
			165	Cashiers, Accountants, book-keepers, clerks and other employés in unspecified offices, warehouses, and shops.	443	52	278	134	91	2
			167	Labourers and workmen otherwise unspecified	762	18	176	40	3	1
	XII	...	...	**Unproductive**	841	35	39	70	13	2
		54	168	Inmates of jails, asylums and hospitals	856	5	73	50	11	5
		55	169	Beggars, vagrants, prostitutes, etc....	835	44	29	77	14	1

SUBSIDIARY TABLE IX.—*Proportional distribution by selected occupations of Hindus and Mahomedans.*

Class and Sub-class.	Order.	Group.	Selected Occupations.	Number of Hindus and Mahomedans per 10,000 of each religion.	
				Hindus.	Mahomedans.
A	...	...	**Production of raw materials**	2,521	4,754
I	...	...	**Exploitation of the surface of the earth** ...	2,424	4,731
	1	...	Pasture and Agriculture	2,348	4,599
	1(*a*)	...	Ordinary cultivation	2,046	4,413
	...	1	Income from rent of Agricultural Land	53	169
	...	2	Ordinary Cultivators	1,099	3,402
		4	Farm servants and field labourers	893	843
	1(*b*)	...	Growers of special products and market gardening.	149	67
	..	6	Fruit, flower, vegetable, betel, vine and areca nut, etc., growers.	55	64
	1(*d*)	...	Raising of farm stock	149	111
	2	...	Fishing and Hunting	77	132
	...	14	Fishing	77	132
B	...	...	**Preparation and supply of material substances** ...	4,004	3,697
III	...	...	**Industry**	1,512	934
	11	..	Chemical products properly so called and analogous.	144	57
	...	53	Manufacture and refining of vegetable and mineral oils.	139	52
	12	...	Food industries	383	299
	...	56	Rice-pounders and huskers and flour grinders ...	361	219
	13	...	Industries of dress and the toilet ...	412	270
	...	68	Tailors, milliners, dressmakers and darners, embroiderers on linen.	61	177
	...	71	Washing, cleaning and dyeing	239	39
	19	93	Industries concerned with refuse matters (sweepers, scavengers, dust and sweeping contractors).	169	23
IV	...	...	**Transport**	1,384	905
	20	...	Transport by water	186	473
	...	95	Ship owners and their employés, ship brokers, ship officers, engineers, mariners and firemen.	48	134
	...	97	Boat owners, boatmen and towmen	140	329
	21	...	Transport by road	748	326
	...	98	Persons employed on the construction and maintenance of roads and bridges.	516	103
	..	99	Cart owners and drivers, coachmen, stable boys, tramway, mail carriage, etc., managers and employés.	229	195
	22		Transport by rail	411	94
	...	103	Railway employés of all kinds other than construction coolies.	329	80
V	...	...	**Trade**	1,108	1,858
	26	108	Trade in Textiles	63	236
	33	...	Other trade in food stuffs	447	540
	41	..	Trade of other sorts	300	787
	...	135	Shopkeepers otherwise unspecified	276	778
C	...	...	**Public Administration**	652	508
VI	...	...	**Public Force**	314	237
	42	139	Army	199	146
VII	45	...	**Public Administration**	197	88
	...	144	Service of the State	139	50
VIII	...	...	**Professions and Liberal Arts**	121	163
D	...	...	**Miscellaneous**	2,819	1,041
X	52	...	**Domestic Service**	704	305
	...	162	Cooks, water-carriers, door-keepers, watchmen, and other indoor servants.	645	287
	...	...			
XI	...	...	**Insufficiently described occupations**	2,080	678
	53	...	General terms which do not indicate a definite occupation.	2,080	678
	...	165	Cashiers, Accountants, book-keepers, clerks and other employés in unspecified offices, etc.	421	187
	...	167	Labourers and workmen otherwise unspecified	1,585	340

SUBSIDIARY TABLE X(*a*).—*Number of Persons employed in the Postal Department on the* 10*th March* 1911.

Class of Persons employed.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Grand Total	47	2,845	2,892
A.—POST OFFICES ONLY	45	2,579	2,624
(1) Officers (including Inspectors)	13	22	35
(2) Post Masters	5	368	373
(3) Miscellaneous Superior Staff	2	68	70
(4) Clerical	24	481	505
(5) Postmen, etc.	..	1,228	1,228
(6) Road Establishment	1	412	413
B.—COMBINED POST AND TELEGRAPH OFFICES	2	266	268
(7) Signallers	2	113	115
(8) Messengers	..	153	153

SUBSIDIARY TABLE X(*b*).—*Number of Persons employed in the Telegraph Department on the* 10*th March* 1911.

Class of Persons employed.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Grand Total	336	1,971	2,307
A.—ADMINISTRATIVE ESTABLISHMENT	18	4	22
(1) Director-General	..	..	..
(2) Directors	1	..	1
(3) Superintendents	4	..	4
(4) Assistant Superintendents	2	4	6
(5) Deputy Superintendents	10	..	10
(6) Royal Engineers, Officers and men	1	..	1
B.—SIGNALLING ESTABLISHMENT	311	20	331
(1) Deputy Superintendents	3	1	4
(2) Telegraph Masters (Permanent)	27	..	27
(3) Telegraph Masters (Temporary)	33	..	33
(4) Telegraphists	197	15	212
(5) Native Inspecting Signallers	1	3	4
(6) Warrant Officers, unattached list	..	..	..
(7) Military Telegraphists	49	..	49
(8) Non-Commissioned Officers, unattached list	1	..	1
(9) Other Employés	..	1	1
C.—CLERKS OF ALL KINDS	7	78	85
(1) In Administrative Offices	1	27	28
(2) In Signal Offices	4	38	42
(3) In other Offices	2	13	15
D.—SKILLED LABOUR	.	364	364
(1) Foremen	.	8	8
(2) Carpenters	..	7	7
(3) Black-smiths	..	..	..
(4) Sub-Inspectors	..	51	51
(5) Linemen and Line Riders	..	243	243
(6) Other employés	..	55	55
E.—UNSKILLED LABOUR	..	1,049	1,049
(1) Line coolies	..	748	748
(2) Cable guards	..	5	5
(3) Battery men	..	11	11
(4) Other employés	..	285	285
F.—MESSENGERS AND OTHER SERVANTS	..	456	456
(1) Duftries	..	3	3
(2) Farashes	.	3	3
(3) Peons	..	323	323
(4) Chaukidars	..	2	2
(5) Watermen	..	39	39
(6) Sweepers	..	56	56
(7) Other employés	..	30	30

SUBSIDIARY TABLE X(*c*).—*Number of Persons employed in the Irrigation Branch of the Public Works Department on the* 10*th March* 1911.

Class of Persons employed.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Grand Total	29	14,509	14,538
A.—PERSONS DIRECTLY EMPLOYED	24	2,148	2,172
(1) Officers	17	..	17
(2) Upper Subordinates	3	13	16
(3) Lower Subordinates	3	97	100
(4) Peons and other servants	..	503	503
(5) Coolies	..	1,422	1,422
(6) Canal Inspectors	1	18	19
(7) Canal Surveyors	..	94	94
(8) Temporary Clerks	..	1	1
B.—PERSONS INDIRECTLY EMPLOYED	5	12,361	12,366
(1) Contractors	1	245	246
(2) Contractors' regular employés	4	193	197
(3) Coolies	..	11,923	11,923

SUBSIDIARY TABLE X (*d*).—*Number of Persons employed on the Burma Railways on the 10th March 1911.*

Class of persons employed.	Europeans and Anglo-Indians.	Indians and Burmans.	Total.
Grand Total	783	27,427	28,210
A.—AGENCY DEPARTMENT	16	44	60
I.—PERSONS DIRECTLY EMPLOYED	16	44	60
(1) Officers	3	..	3
(2) Subordinates drawing more than Rs. 75 per mensem	10	11	21
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	3	16	19
(4) Subordinates drawing under Rs. 20 per mensem	..	17	17
II.—PERSONS INDIRECTLY EMPLOYED	..	..	..
(1) Contractors	..	..	..
(2) Contractors' staff	..	..	..
(3) Coolies	..	..	..
B.—TRAFFIC DEPARTMENT	279	6,264	6,543
I.—PERSONS DIRECTLY EMPLOYED	279	3,620	3,899
(1) Officers	17	..	17
(2) Subordinates drawing more than Rs. 75 per mensem	162	34	196
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	100	1,437	1,537
(4) Subordinates drawing under Rs. 20 per mensem	..	2,149	2,149
II.—PERSONS INDIRECTLY EMPLOYED	..	2,644	2,644
(1) Contractors	..	..	..
(2) Contractors' staff	..	344	344
(3) Coolies	..	2,300	2,300
C.—LOCOMOTIVE, CARRIAGE AND WAGON DEPARTMENT	336	6,029	6,365
I.—PERSONS DIRECTLY EMPLOYED	336	5,832	6,168
(1) Officers	15	..	15
(2) Subordinates drawing more than Rs. 75 per mensem	223	51	274
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	46	2,167	2,213
(4) Subordinates drawing under Rs. 20 per mensem	52	3,614	3,666
II.—PERSONS INDIRECTLY EMPLOYED	..	197	197
(1) Contractors	..	28	28
(2) Contractors' staff	..	145	145
(3) Coolies	..	24	24
D.—AUDIT DEPARTMENT	13	314	327
I.—PERSONS DIRECTLY EMPLOYED	13	314	327
(1) Officers	4	..	4
(2) Subordinates drawing more than Rs. 75 per mensem	9	27	36
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	..	342	242
(4) Subordinates drawing under Rs. 20 per mensem	..	45	45
II.—PERSONS INDIRECTLY EMPLOYED	..	..	..
(1) Contractors	..	..	..
(2) Contractors' staff	..	..	..
(3) Coolies	..	..	..
E.—STORES DEPARTMENT	6	395	401
I.—PERSONS DIRECTLY EMPLOYED	6	53	59
(1) Officers	3	..	3
(2) Subordinates drawing more than Rs. 75 per mensem	1	11	12
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	2	42	44
(4) Subordinates drawing under Rs. 20 per mensem	..	..	..
II.—PERSONS INDIRECTLY EMPLOYED	..	342	342
(1) Contractors	..	2	2
(2) Contractors' staff	..	1	1
(3) Coolies	..	339	339
F.—MEDICAL DEPARTMENT	11	157	168
I.—PERSONS DIRECTLY EMPLOYED	11	157	168
(1) Officers	3	..	3
(2) Subordinates drawing more than Rs. 75 per mensem	7	9	16
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	1	13	14
(4) Subordinates drawing under Rs. 20 per mensem	..	135	135
II.—PERSONS INDIRECTLY EMPLOYED	..	..	..
(1) Contractors	..	..	..
(2) Contractors' staff	..	..	..
(3) Coolies	..	..	..
G.—ENGINEERING DEPARTMENT	122	14,224	14,346
I.—PERSONS DIRECTLY EMPLOYED	104	8,534	8,638
(1) Officers	14	..	14
(2) Subordinates drawing more than Rs. 75 per mensem	58	36	94
(3) Subordinates drawing from Rs. 20 to Rs. 75 per mensem	32	529	561
(4) Subordinates drawing under Rs. 20 per mensem	..	7,969	7,969
II.—PERSONS INDIRECTLY EMPLOYED	18	5,690	5,708
(1) Contractors	9	113	122
(2) Contractors' staff	9	257	266
(3) Coolies	..	5,320	5,320

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APPENDIX A.

A NOTE ON THE PALAUNGS OF THE KODAUNG HILL TRACTS OF THE MOMEIK STATE

By A. A. CAMERON, Assistant Superintendent, Kodaung Hill Tracts.

CHAPTER I.—THE KODAUNG.

A map appended to this note shows that the tract is a rough triangle wedged in between the Sinlumkaba hill-tracts of the Bhamo district in the north and North Hsenwi on the south, having its apex in the Shweli river about seven miles from the Namhkam, and its base against the plains portion of the Momeik and the Tawngpeng State.

Division of Clans.—The map also shows that the country is divided into fifteen administrative circles or tracts, the boundaries of these tracts generally corresponding with the areas formerly peopled by different clans, except tracts III to VI which are peopled by Humais. Circles II and IX, Lwewein and Manjawp, are now peopled solely by Kachins, the previous Palaung residents having been driven out or emigrated elsewhere. Likewise tracts I and XV, Chauktaung and Manyawn, both of which were in former times peopled by separate clans under their own *kins* or clan chieftains, are now almost destitute of Palaung dwellers, there being only one village in the former and three in the latter.

The following table shows the distribution of the various Palaung clans, among all of which there is a close ethnical connection. Sub-clans have not been touched on.

Table showing Statistics of Population in the Kodaung Hill-tracts of Momeik State based on the Census of 1911.

Number of tracts.	Name of tract.	Palaungs.	Kachins.	Shans.	Lishaws.	Others.	REMARKS.
I	Chauktaung ...	115*	2,725	...	...	...	
II	Lwewein ...	...	829	...	...	27	
III	Sauram ...	1,213*	2,627	238	50	2	
IV	Sailen ...	1,651*	224	...	...	...	* Rao-mai clan.
V	Humai ...	3,340*	184	266	11	5	† Rao-kwang clan.
VI	Pankha ...	563*	35	...	...	...	‡ Rao-man clan.
VII	Maingkwin ...	2,075†	422	...	...	...	
VIII	Manmawk ...	905‡	207	21	401	...	§ Rao-kaw clan.
IX	Manjawp ...	...	494	...	10	...	‖ Rao-nâk clan.
X	Manton ...	439§	242	40	...	36	¶ Rao-haw clan.
XI	Manpat ...	123‖	399	...	...	...	**Rao-pang clan.
XII	Manlon ...	454¶	1,714	50	...	...	††Rao-pun clan.
XIII	Manpun ...	564**	214	...	...	...	‡‡Rao-htan clan.
XIV	Yabon ...	460††	228	25	...	...	
XV	Manyawn ...	245‡‡	697	...	...	...	
	TOTAL ...	12,147	11,241	640	472	70	= 24,750

CHAPTER II.—PRESENT HABITAT.

This is correctly set out in Mr. Lowis' note.

CHAPTER III.—ORIGIN.

I think the Palaungs were always, as they now are, dwellers of the hills. There is a strong natural antipathy among them against descending to the plains, the feeling being more intense than that existing among Kachins, who are universally admitted to be hillmen. I believe Mr. Lowis is in error in supposing they were forced into the hills by the Shans. Where a few Shan villages do occur, near the banks of the Shweli river, it seems clear they were invited by the Palaungs to come and work the low-lying lands owing to the inability of the Palaungs themselves to exist in those parts. On the contrary it would appear that in Hsenwi the Shans were earlier arrivals than the Palaungs.

The various tribes have slightly different accounts of their origin, but they all agree in saying that they come from the north and north-east, this land being variously called (*a*) Sak-khung Lungto; (*b*) Möng Lapun Lapawn; (*c*) Hukawng-Hu-Chio and (*d*) Hukawng-Hukung, and various other names. The last two are the most significant—the meaning of Hu-kawng, Hu-kung in Shan, being the sources of the Nam Kawng and Nam Kung rivers, the former doubtless being the same as the Me Kawng, while Chio is the name for the Irrawaddy. It would, therefore, appear that somewhere near the sources of the Mekawng and the Irrawaddy rivers marks the locality where the various clans of Palaungs had their original home.

The different accounts of their southward journey, so far as tradition has it, is given separately under the heading of the respective clans.

The Humais.—They state they came from Sak-hkong in the east and camped in Möngwa in Hsipaw; thence they journeyed to Ta-tang and thence to Man-Lung Man Ngai in Taungbaing and thence to Möng Yuk (? in Hsenwi). Owing to a dispute with the *Sawbwa* of Taungbaing, to whom they have never been dependent, they shifted to Mala-kang, somewhere near the present village of Man-mai (Humai) (or Ngaw-rean, according to Sailen Palaungs) and there settled. There were only three households then. Mongkwang or Maingkwin already had its *kin* or clan chieftain, and he sent emissaries to collect taxes from the three households, who refused to pay. A reference to the *Sawbwa* of Momeik led to one of the three Humai householders being appointed a *kin* and on his way back from Momeik he seized a Maingkwin woman and made her his wife. The story goes that on his way to Momeik the *kin*-elect met some women in the fields who called to him and asked him where he was bound. He replied he was going to Momeik to get a warrant of appointment as *kin*. The women treated this as a joke and one of them said: "Oh, very well, when you become *kin* I shall be your *kin-kadaw* or wife." Having obtained his appointment order he met this same woman on his way back and asked her to fulfil her promise, but she said she had only been joking and that she was a married woman. The new *kin* was not to be put off and seized her. As she struggled, a bamboo was passed through her cane waist-rings and she was carried away and compelled to go through the marriage ceremony. The enraged husband followed with a large gathering to make reprisals, but was bought off with three viss of silver and other presents and left his wife to share the position and honour of *kin's* lady. This led to Maingkwin women discarding waist-rings on marriage, but that practice has fallen into desuetude and they now wear them throughout life. The Humais increased rapidly and occupied the four present administrative tracts—Humai, Sailen, Pankha and Sauram. Later on a few, at the invitation of Kachins, also entered Thauktaung and formed the village of Supla. The Humais founded a tribe of Palaungs (? Amiameu) known as Hang Yeng in the land, but these they decimated and the only survivals of that people now live in the village of Tonklun and have assimilated Humai dress, language, etc., but up to date the village headman instead of being called a *puche*, *hpawng* or *pak* is known as a *kin*. In course of time there was a dispute as to succession between two sons (or an uncle and his nephew) named Haw Mun and Haw Sai and this dispute led to war and eventually ended in the *Sawbwa* of Momeik dividing the land, and giving the eastern part together with Sauram tract to Haw Mun and the western and larger part together with Pankha to Haw Sai, who had shifted his seat from Mala Kang or Ngaw-rean to Maukan. Haw Mun established his capital at Sailen. The *pawmong* who is over the Pankha tract is still subordinate to the *kin* of Humai, but for administrative reasons the *pawmong* over the Sauram tract was about nine or ten years ago made independent of the *kin* of Sailen.

When some of the first settlers of this tract went to the bazaar at Manna they were met by the *kin* of Maingkwin who cut their ears off so as to identify them thereafter—'hu' in Shan being ear and 'mai' meaning to mark for purposes of identification. Thus the term Hu-mai is said to have come into existence. This story is related by Maingkwin and not denied by the Humais.

Maingkwin.—A white tiger is said to have had four sons by a daughter of a king who reigned in the land known as Hu-Chio, Hu Kawng (Shan hu=source and Chio, the Irrawaddy. Hu-Chio, Hu Kawng, the source of the Irrawaddy and Nam Kawng probably same as Mekawng). These were named—

1. La Ai; 2. La Yi; 3. La Sam; and 4. La Sai.

The first three travelled south-westwards and arrived at Loi-mung möng (△7035 on map), whence they could see all the country round about and they proceeded to divide it. Each became a *Sawbwa*. La Ai took Hsenwi, La Yi established Maingkwin and La Sam went to Taungbaing. La Sai, the fourth son, established himself north of the Shweli among Kachins and his kingdom was known as Hkang (the Shan word for Kachin). La Yi took up his headquarters at Chekan (evidently a very ancient city), but later on when the *Sawbwa* went to Momeik the suzerainty of Momeik was acknowledged and the headquarters shifted to Konkang where it now is. It is claimed that the Humais were formerly their slaves, but having increased greatly in numbers they, with the consent of Maingkwin, separated and established a State of their own and their chief was made a *kin* by the *Sawbwa* of Momeik.

According to another account the Maingkwin Palaungs came from Kwangton-Kwangsi in China. The three brothers having reached Loi Mung Möng and established the three states, Maingkwin, Hsenwi and Taungbaing, their mother Nan Lang Si, went with the youngest of the three, La Sam, to Taungbaing and as she gave him all her insignia, gold umbrellas, etc., Taungbaing became greater than the other two. But Chekan in Maingkwin grew so much in importance that it exacted tribute from the Burmese king on the west and the

Chinese ruler of Kwangtu Kwang Ching on the east. After awhile both these threw off their allegiance and jointly attacked Maingkwin and destroyed Chekan. The grandson of La Yi called Pamalan Long went down to Mandalay, after establishing a '*myo*' (city) at Momeik and got an appointment of *Sawbwa*. Thereafter the rulers of Maingkwin became merely '*kangs*' or *kins*. La Sai, the youngest of the four brothers who had remained behind, founded Mogaung (Mōng-kawng).

Manmawk.—They state they came from Hu-kawng. Hu-kaung (or Sak-hkung Lunglü) a month's journey to the north-east.

Manjawp.—This was formerly a Palaung tract, but the present Kachin inhabitants squeezed the Palaungs out. Two villages, Long-prawng and Chan-pu, did exist up to 1898, but not caring for the swell of Kachins which was gradually increasing in intensity they cleared out and are said to have gone to Tokē and Pangmon in Momeik. They belonged to the Rao-jawp clan. It is not known where they claim to have come from.

Manton.—Sap-Hkong Lŏng Lü in China is said to have been the original home.

The earth having been consumed by fire four Byammas came down from heaven and began eating earth. They ate so much that they could not again ascend so began to play. Taking some earth one made the figure of a tiger, another of a pig, another of a monkey and the last of a tigress. Suddenly, by some mystical means, life entered into each figure and each proved to be of the feminine gender and was taken to wife by its maker. They all conceived and their offspring took the shape of men and women and Manton (and all other Palaungs in the Kodaung) are descendants of the tigress. Leaving Sap Hkong Longlü they came down the Irrawaddy *viâ* Mōng Leng (Mohlaing) and settled north of the Shweli. [The *kin* that had his seat at Laikang (Chauktaung) appears to have been of this class.] A branch went to Taungbaing and finding it occupied moved back north and established Manton.

(Reading this together with the Maingkwin theory, I think this clan are descendants of the youngest of the four original brothers, La Sai).

Manpat.—These people say they came from the north-east and in any case not from Taungbaing. They state they cannot say more as they are accustomed to look forward—not backwards.

Manlon or Gammaw.—All they know is that they came from a place called 'Kawsang' in China. [*Note.*—I have been given a document which it is said will throw further light on the point, but have not had the time to decipher it as yet.]

Manpun.—The original home is said to be Lăpun Lăpawn in the north-east. They know nothing more of how they got to their present abode.

Yabon.—These people state they have been in Yabon for forty generations and more, and came originally from Western China.

Manyawn.—The Rao-yawn tribe that originally inhabited this tract were displaced by Kachins about a century ago. There is no trace of them now. The *kin* or clan chieftain used to live at Manyawn village.

The three villages—Ngawsawmp, Hpaimai and Haiktang of the Haiktan clan—are more or less interlopers. They are an offshoot of the Rao-khai clan, the *kin* of which had his seat at Mankkai village near Maingkwin, a little to the west of the Kodaung and in Momeik State (proper). They have come in within the past 30 or 35 years and have assimilated most of the customs of the Manlon clan and in the notes below, except as regards dress, separate mention of them is not made.

CHAPTER IV.—Language.

The language is unlike any other and absolutely different in sound to Shan, Burmese, Chinese or Kachin. It jars on the ear as it abounds in coarse, raucous sounds, often like the barking of a dog. The various clans in the Kodaung have little difficulty in speaking to and understanding each other, although the dialects of no two clans are alike. When they meet the Kalurrs, Kwanhais, Tawngwas, Ngawnhawts and other clans including the Pales in the Tawngpeng State, Shan is more often than not resorted to as a medium of conversation. It is also used in intercourse with Shans, Kachins and Lishaws. The Humai people give the following story how that language first began to be used.

The *Sawbwa* of Hsenwi had a wicked son. This boy, when eight years old, struck the son of a plebeian and destroyed one of his eyes. The *Sawbwa* offered compensation but the injured father declined to accept money and demanded an eye of the offender. Fearing violence the *Sawbwa* sent his son to the court at Mandalay, where he learnt Burmese. When grown up he left the palace and became a trader and in the course of his journeys came across three Palaung houses of the earliest Humai settlers in Malakang and he married one of their women and settled down with them.

Years later some officials came up from Momeik and demanded taxes—Rs. 2-8—from each of the three houses and an extra rupee as their personal fee. None of the Palaungs could understand and only when the Shan came home from work was their business explained and the taxes paid. Then the Palaungs pressed the Shan to become their chief, and he was in course of time made a *kin* or clan chieftain. The fact that their first *kin* was a Shan led to other Palaungs acquiring a knowledge of that language.

Other accounts, more prosaic than the above, attribute the almost general knowledge of Shan to the fact that some medium had to be found to converse with peoples of different nationality.

CHAPTER V.—Appellation.

The term Palaung was first applied to the people by the Burmese. Among themselves they are known as Ta-ang (Humai), Da-ang (Maingkwin), La-eng (Manmawk), Ra-ang (Manpat and Manpun and Yabon), Da-eng (Manlon).

Every tribe or clan in the Kodaung declares it is Palaung, and the fact that Kalurrs or others in the Taungbaing think or state they are Pales causes them much amusement. They have all heard of Pales who live somewhere to the west of Nam-hsan and whose women wear broad cane rings round their waists and skirts with broad red stripes. Those nearer the Taungbaing border who know the Pales state they must resort to Shan when speaking to them. If there is any truth or correctness in the statement that the inhabitants of the Kodaung are Pales and not Palaungs it is certain that they are not aware of the fact—and I think the people must be given credit for knowing what they are, and that therefore the statement that they are not Palaungs must be dismissed as untrustworthy.

Here are two accounts of how the Burmese came to use the word Palaung.

In the time of Manisezu, King of Burma, a royal tour was made through Mogôk and Momeik. The king travelled entirely by raft, by pointing his finger in any direction he had the power to create a water-way for the passage of the royal raft; and when necessary the newly created stream, against all the accepted laws of nature, would flow upwards over the highest mountains. On his arriving in the country where Palaungs dwelt he requisitioned some 'Kazun-ywet' and it was said none was obtainable. His own followers searched and found some and the king scolded the people. Some argument took place and the king ordered that that particular leaf should disappear from the land and snakes take its place. Thereafter snakes are said to have become unpleasantly numerous. Not satisfied, however, the king seized a number of the people and confined them (Burmese laung hta thi) in a huge cistern or 'paung' and before releasing them made them swear that they would take the name of 'paung-laung' which gradually changed to Palaung.

The people from Manton tract say that they went to meet King Manisezu on his arrival near Loiseng in the Taungbaing. Residents from the Taungbaing were also in waiting. Not knowing Burmese they saluted him by bending their knees and calling out Kan taw San Alawng Mai rawt (thou hast arrived, oh 'Alaung' prince)! Not understanding what they said he turned to his retainers for information who said in Shan (Ma paung laung sang) meaning they are of no account, and this led to their being dubbed Paung-laung or Palaung. It is strange that these two accounts should agree in placing the time the term came into existence to the period of King Mani Sezu.

CHAPTER VI.—Physical and Personal Characteristics.

The Palaung of the Kodaung is a well-built, well-fed, powerful-looking individual rather above the medium height. A loose jacket usually worn open down the front, a pair of baggy trousers with the fork sometimes trailing on the ground and a turban on his head do not tend to set off his fine physique. Compared with the male, the woman is short, rather below the average height of the Burmese woman, but she is of perfect stature. A heavily built or stout woman is seldom if ever met with. Her dress, too, though picturesque, is not beautiful. Gaiters, ties above the ankle and below the knee, a tight skirt, secured at the waist with a string and pulled up, only in front, to cover the breasts where it is held by another string—a diminutive jacket, always open down the front, a turban and sometimes also a hood over it, with numerous cane rings round the waist held in strands of ten or twelve by silver fastenings in front of the stomach complete her attire. She never wears shoes (except occasionally in Maingkwin) or sandals which the men are seldom without. The complexion of men and women is an olive brown—much the same as the Lower Burman and not near as light as the Shan. The women of the Maingkwin tract are somewhat lighter and better looking than those of the other tracts.

The man has a nice open face and I think he must be regarded as good looking. Like so many other coloured tribes the woman is far less beautiful, the average face being round with small eyes and nose, rather a big mouth. Both sexes wear their hair long and there are many fine heads of hair to be seen.

The Palaung is brought up to pay the greatest respect to his priests, teachers, elders and rulers. Coupled with this respect he is naturally timid and this has led to his being regarded as a coward. I do not think, however, that this charge is justified, and on occasions he will show surprising bravery. There is no doubt, however, that he could never have withstood the enveloping movements of the Kachin, but this can be partly accounted for by the fact that there never was much political collusion among them, each clan and sometimes

each village having to depend itself without other aid, whereas the Kachins, with a strangely shrewd knowledge of the strength of union, rallied together in large bodies. My opinion of the Palaung, as regards his money transactions, is that he deals fairly and that he is inclined to be liberal, but he is poor and needs to be careful. Where his religion is concerned a Palaung will readily subscribe his little all and to the stranger he is most hospitable. Every sort of violence is repulsive to him. He would seem to be reserved, but no sooner he finds that you are in a position to converse, he is quite affable and even friendly. This remark applies to women as well as men.

CHAPTER VII.—Dwellings and Villages.

The village is invariably on the crown of a hill-top or along a ridge. Villages vary in size, from 2 to 50 houses, but the average number of houses in a village is 9 or 10. There is always a main road passing through the village and in some cases a few branch roads. The houses lie on both sides of the roadway and their length is always parallel to it. They never face or have their backs towards the road. In the case of a small house a single flight of stairs of four to six steps leads up to the house. It abuts in an open verandah. Larger houses have two, but never more than two, staircases. The second staircase would be at the opposite end of the house, also abutting on an open verandah. The houses of the different clans vary somewhat in the internal arrangement of the rooms and corridor, but the external appearance is the same always. The average breadth of the house is 22 to 26 feet; the length varies from 20 to 80 feet. The length increases as one travels from west to east: those on the west side of the Kodaung being usually of a single household, while those in Sauram and Sailen contain three, four, five and sometimes six households, the length increasing with the number of households. The posts and framework are always of wood. The floors of bamboos split open, with the inner portion of knots removed, the walls and partitions of mat and the roof of thatch. The flooring is made so that the side where the steps come up will not be more than four or five feet off the ground. The further side may be 10 or 12 feet high. The space below the house is fenced in with bamboo and acts as a pen and stable for cattle and ponies. The rice is also pounded there. The roof meets the side walls, at 2 to 3½ feet from the floor. The front and back walls also rise up to the roof, but the internal partitions are not more than 6 feet high. The roof falls on both sides from a central ridge and is rounded off at both ends. The walls inside rafters and beams are usually shining black with thick soot, there being no openings to carry off the smoke.

(*Note.*—In Sailen and Sauram a few houses have a small window-like opening in the roof.)

Below are sketches showing the internal divisions of some houses.

Humai clan.—(*a*) A house with two households. (Fig. 1.)

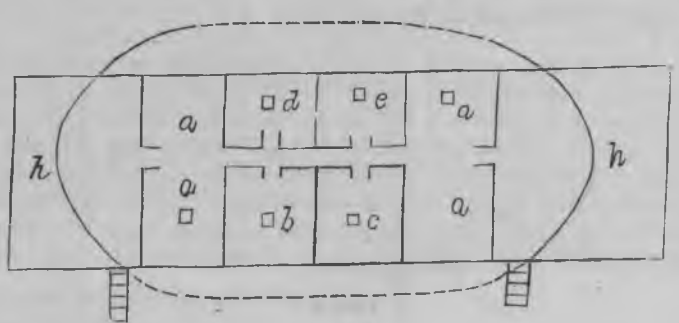


Fig. 1.

a a—Visitors' apartments.
d e—The two householders' rooms.
b—The cook and spare room of (*d*).
c—The cook and spare room of (*e*).
h h—The two open verandahs.
The circular line represents edge of roof.

(*b*) A house with four households. (Fig. 2.)

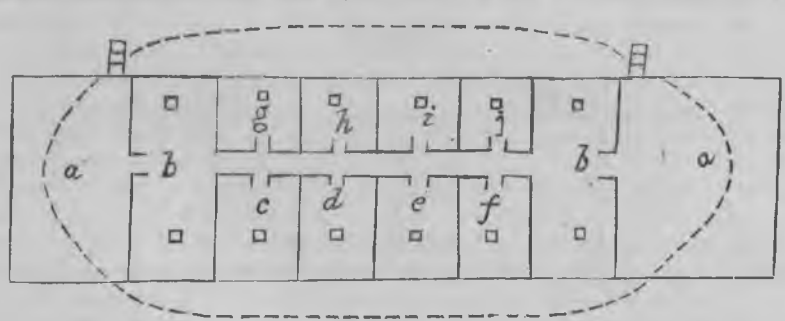


Fig. 2.

a a—The two open verandahs.
b b—The two visitors' rooms.
c d e f—The rooms of the householders.
g h i j—The cookrooms of the householders.

The little squares represent the fireplaces. The householders invariably stay in the rooms on the further side of the house, away from the stair cases. This custom is common to all tracts.

Maingkwin.—(*a*) A one-household house. (Fig. 3.)

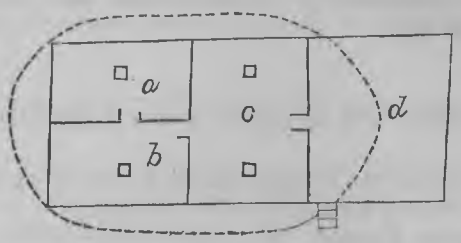


FIG. 3.

a—Householders' room.
b—Householders' cook and spare room.
c—Visitors' apartment.
d—Open verandah.
Unlike the Humai house only a single wall divides the centre.

(*b*) A two-household house. (Fig. 4.)

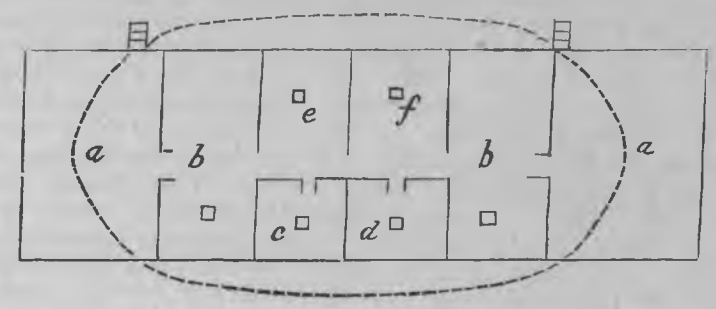
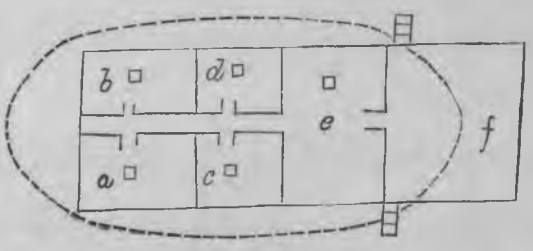


FIG. 4.

a a—Open verandahs.
b b—Visitors' apartment.
c d—Householders' rooms.
e f—Householders' cook and spare rooms.

(*c*) If more households were present an additional pair of rooms for each would be made and the house lengthened at one end.

Manmawk.—(*a*) One-household house. (Fig. 5.)



FIG, 5.

a—Householders' room.
b—Householders' cook room.
c d—Householders' spare rooms.
e—Visitors' apartment.
f—Open verandah.
d and *e*—Need not be walled in with the central walling.

(*b*) The above house could be converted into a two-household house by simply having one side extended and a second visitors' apartment and open verandah added as follows:—

(Fig. 6.)

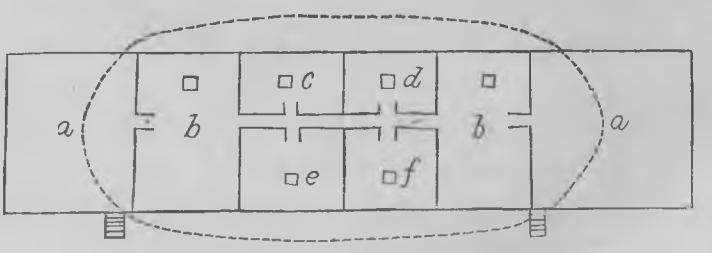


FIG. 6.

a a—Open verandahs.
b b—Visitors' apartments.
c d—Householders' rooms.
e f—Householders' spare and cook rooms.

The houses in Manton and Manpat circle are much the same as those in Maingkwin circle. Those in Manlon, Manpun and Yabon tracts are also the same, but when the households increase to more than two the house is increased by lateral extensions instead of at the ends. The householders' sleeping places also have no fireplaces in Manlon.

(*a*) A one-household house. (Fig 7.)

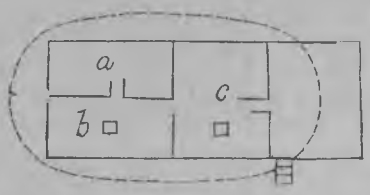


FIG. 7.

a—Housoholders' room. *b*—Cook room. *c*—Visitors room.

(*a*) A two-household house. (Fig. 8.)

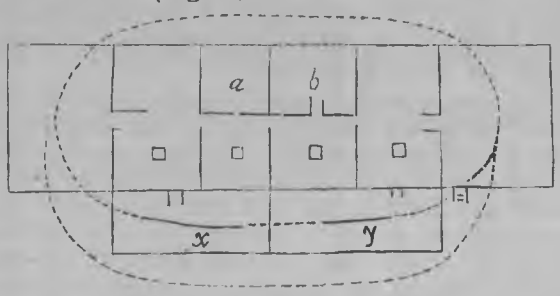


FIG. 8.

a & *b*—Householders' sleeping rooms.

The lateral extensions, X and Y, would provide for a third and a fourth household when the roof would also be extended to take them in. Very often the extended roof is made even before the floor space has to be extended. The additional shelter is then utilized for pounding rice, storing paddy, etc.

In every other case paddy and vegetables that keep are stored in small granaries built near the house. Each householder having its own granary and its own pile of firewood.

Whenever the roadways in the village are liable to become swampy during the rains they are raised a little and paved with cobble stones.

There is a *zayat* in every village and often more than one. Most villages too boast a *hpoongyi kyaung*. These are often built of plank with plank roofs. Some in the Humai and Sailen tracts have roofs slanting upwards towards the ridges in Chinese fashion, and have tiled roofs. These were doubtless built with Chinese labour. The *kyaungs* in the Sauram tract, though replete with images, pictures, etc., are in almost every case devoid of *hpoongyis*. The roofs of some houses have V-shaped projections above them, formed by extending the two outer rafters some feet above the roof ridge or fixing boards to the rafters. These are never made to strengthen the roof as stated by Mr. Lowis, but are a mark of authority of the persons residing within the houses. They are chiefly confined to the houses of the *kin* stock but with the *kin's* permission village elders and headmen may have them, but they must neither be so long nor so ornamentally carved as those of the *kin*, which are usually 5 or 6 feet long. In some cases the *kin's* house is also distinguished by having two arms on one side and only one on the other, thus

The origin of this custom is not remembered.

CHAPTER VIII.—RELIGION.

The entire Palaung population is now Buddhist, and before that religion was adopted animism prevailed. The two centres from which Buddhism spread are Htākchet (or Ngawrean) in Humai and Chekan in Maingkwin. Shan-speaking Burmese *hpoongyi's* are said to have come there from Möng Kyun, Möng Yun probably in Hsenwi and established religious schools and their teaching was readily accepted. According to one source this was 2,450 years ago. Each of these villages has an ancient pagoda which attracts devotees from many miles round. Occasional visits are undertaken to the shrines at Mandalay, Rangoon and even Ceylon. Very few indeed are aware to what nationality Buddha belonged and it is clear that the religion as practised is pure idolatry. The figure of Buddha, after it has obtained a formal blessing by a *hpoongyi*, is thereafter worshipped for its own sake and not as representing something else. Besides the Buddha each clan seems to have its own set of nats which have to be propitiated annually.

Mr. Lowis states on page 10 of his pamphlet "from early infancy onwards the education of the boys is in accordance with well-worn Buddhistic tradition." This is not true as regards any part of the Kodaung. Entry in the *Kyaung* is made between the ages of 6 and 10 years. It is left entirely to the will of the boy to enter or not and the parents have no say in the matter at all. If so inclined the boy sometimes walks off and informs the *hpoongyi*

that he has come to stay as a *Kyaungtha* or scholar. He may or may not accompany this intimation by a small offering of flowers. The parents later find the boy there and either acquiesce to his stay or persuade him to come home. This persuasion is made to test the child's resolution and not really to dissuade him from remaining at the *kyaung*. Should he elect to stay, nothing more is said, and the parents then make a formal offering of food and flowers to the priest and request him to see to the welfare of the child.

The percentage of boys that enter the *kyaung* as scholars varies from 20 to 30 per cent., and of these very few remain long enough to take the yellow robe and become "Koyins" or "San-sangs," so that only 2 or 3 per cent. of males enter the priesthood.

When the scholar has learned to read and write a little and got certain prayers off by rote, he is eligible to be made a "Koyin" usually when he is 8 to 11 years old. Once the robe is donned, very few leave the *kyaung*, although this can be done at any time.

In addition to the child's own parents, godparents are invariably appointed by the *hpoongyi*, and it may happen that a specially fortunate *koyin* has half a dozen godfathers and as many godmothers. There is no objection to unmarried men and women standing in the place of a godparent and it does not follow because a man is godfather that his wife will be godmother. The post of godparent is considered honorable, because the godparent shares expenses with the own parents in all feasts connected with the child's advancement up the ecclesiastical ladder and is readily accepted; in fact there is competition at times and the *hpoongyi* has to settle the rivalry.

The ceremony of becoming a *koyin* is usually made to coincide with some other festival, but may not be performed during the three months of fast, *viz.*, the first waning of the 8th Shan month (Wazo) to the full-moon of the 11th Shan month (Thadingyut). It usually commences at midday, goes on all night and ends the following morning, but sometimes, if the parents and godparents can afford it, the feast lasts three days. In all cases the *hpoongyi* consults the boy's horoscope and selects a fortunate day for the rite, which is much the same as among the Burmese except that no money present is demanded by the priest. The boy or *shin-laung* is decked up in a *hsü-lai-nguk* or nat's coat, the *htaing-pa-thein* of the Burmese, with all available ornaments including bracelets and torques, a paper crown placed on his head, and is either put on a pony and carried on the backs of men and paraded through the village and round the *kyaung*, to the accompaniment of drums, cymbals and gongs, then enters the *kyaung* and is robed with the *thingan*, the *hpoongyi* selecting a title for him which is written on a piece of paper and placed on his head together with a spare robe. The parents and godparents feed the assembled priests and laity: the latter share the expenses with the former in all future advancement of the newly-made priest, but their responsibility and connection ends should he leave the *kyaung*. At 20 the novice is ready to be made a *pazin* or *num sang* and another ceremony is necessary. This too is much the same as that among the Burmese. Supported by two *pazins*—one on either side—he is questioned by a *hpoongyi*, usually in a *thein*. Are you a leper? Have you a wife now, are you in debt, have you your parents' approval to become a *pazin*, are you a fugitive from the law, etc., etc., and on these queries being answered in the expected manner the ritual is gone through. Two schools of religious faith are followed, one known as the Burmese and the other as the 'Yun.' In the former the senior *pazin* in a *kyaung* is known as the *hpoongyi*, and there are no grades.

In the 'Yun' school there are seven grades, each successive grade being usually obtained after the lapse of a decade, and the cost of the ceremony increasing with each successive step; this period providing not only for an increase of religious knowledge on the part of the priest but enabling the parents and godparents to meet the expenses of the necessary ceremonies. The following table shows such advancements—the title, age and cost of each:—

Title.		Usual age.	Approximate cost. Rs.
Koyin	...	9 to 12	10 to 30
Pazin	Hkānan	20	30 to 50
	Pahlin	30	50 to 70
	Sami	40	80
	Pasāng	50	100
	Hku	60	130 to 150
	Sumlit	70	175
	Hpachān	80	200

The cost which in Manpat is somewhat less than the other tracts, includes the feeding of assembled villagers and priests and buying various new outfits for the candidate in question as well as other priests.

Leaving the priesthood even for a day means the loss of all advancement and on re-entry to a *kyaung* one would have to begin at the *hkānan* grade again. The priest is spoken and addressed by the grade he has obtained, as Chan-Hkānan, Chan-Pahlin, Chan-Sumlit.

The ceremony of raising is shortly as under. A small temporary *kyaung* is built in the jungle a hundred yards or so from the *kyaung* and the candidate goes and lives there for two or three days, while villagers collect and arrangements for feeding go on in the *kyaung* precincts. When all is ready a large body go to the temporary *kyaung* and invite the candidate to step on to an ornamental dais they have brought with them. This he does and the supporting bamboos are raised up and carried by as many men and women as can possibly obtain a hold, and the candidate is taken into the *kyaung* amidst shouting music and dancing. An extended platform, about 6 or 7 feet off the ground, has been run out from the front or side of the *kyaung*. The candidate is lifted up three times (in Manpun seven times), the last time the top of the dais being brought on a level with the platform and the candidate steps from the latter on to the former, where he is met by a number of other priests. The

senior priest then shouts out the newly obtained grade of the candidate which is caught up and repeated by the assemblage. The ceremony usually begins in the former, lasts all day and the following morning: a thank offering takes place at the *kyaung* and closes the matter, the *hpoongyi* then delivering an address.

The priests, except during the lent, do not go round and beg. Early in the morning the women and a few of the elder men visit the *kyaung* carrying food and a bottle of water. The food is placed in trays which the *hpoongyi* places to receive it. Rice is placed in one tray and curry, done up in little leaf packets, in another. This suffices for the morning meal. The bottle of water is offered up with a prayer and then poured through the flooring.

About 8 A.M. the *Kyaungthas* go round and collect raw rice, curry stuffs and salt, and this is cooked by nuns, where there are any, or by the women of the village in rotation for the midday meal. After midday, fruits may be eaten, betel or '*kundauk*' and tea partaken of, but rice is avoided.

During the lent the *hpoongyi* in some parts begs from house to house, in others he merely goes as far as the entrance to the *kyaung* and is there met by the villagers. Cooked rice is then placed in his begging bowl, which is held in the left hand and curry into the tray covering of the bowl which is held in the right.

Seniority in priesthood goes by the consecutive number of lents spent in the priesthood, not by age. The years spent before one becomes a *pazin* do not count.

Twice a month on the full-moon and last day of the month, elderly people go to the *kyaung* and keep fast, the *hpoongyi* delivers an address and most leave by noon, only a very few remaining till sunset.

On the other fast days, *i.e.*, the 8th waxing and 8th waning, the fast is very seldom observed.

When a *koyin* is made he receives the following requisites of his calling:—

1. Thingan or robe including—
   - (*a*) thinbaing or waist cloth,
   - (*b*) cotton *e-ka-thi* or cloak, 8 feet by 4 feet,
   - (*c*) flannel *e-ka-thi* or cloak, 10 feet by 6 feet,
   - (*d*) a vest,
   - (*e*) belt,
   - (*f*) a red and white badge.
2. A carpet.
3. A pillow.
4. A pair of sandal.
5. An umbrella.
6. A haversack.
7. A betel box.
8. Goglet.
9. A cup.
10. A plate, dish and spoon.

When raised to a *pazin* in addition to a new set of above he receives:—

1. A set of yellow velvet garments.
2. A begging bowl.
3. Fan
4. Filter.
5. Alpen stock.
6. Rosary.
7. Razor.
8. A hide to sleep on.

At each successive step in the grade of *pazin* a new set of above requisites are provided, not only to the recipient of advancement, but to other *hpoongyis* present.

The clans that belong to the Burmese school are the Humais, Manmawk and Manlon.

Note.—Pangtang village in Manlon follows the 'Yun' school. All the rest follow the Yun school, but in Manpat there are only five instead of seven grades, the Pahlin and Sami grades not being recognized. The expenses in connection with each grade also differ slightly.

In the Burmese school a *pazin* becomes a *hpoongyi* when he gets a *kyaung* and on such occasions he is carried about and eventually placed on a golden dais.

CHAPTER IX.—Birth and Naming Ceremonies.

Infanticide is not known. Children of either sex are welcomed, but males are preferred, as they are said to continue the family. Girl babies have one advantage in that a dowry is obtainable for them later on.

No preparations whatever are made in expectation of the birth of a child.

When it is successfully born the clothing for it is thought about. There are no professional nurses or midwives. Birth is given usually kneeling, sitting on the haunches, and sometimes between a sitting and standing position, but never lying. Two or three women friends are always in assistance, and while two support the back and shoulders, a third presses the stomach. Unlike the Burmese and Shans they do not strain on a rope or piece of cloth to ease parturition, except in Maingkwin, but once the child is born they do so; straining only the tail rope of a pack-bullock for the purpose till the after-birth is expelled. Should there be difficulty in giving birth a man pronounces some enchantment and breathes over a cup of cold water which is given to the woman. Sometimes two or three such drinks have to be given. In Yabon a little sap of the plantain tree is put into the water. This usually has the desired effect. There are not more than 2 or 3 per cent. of deaths due to child-birth. No sooner the child is away the woman's stomach is pressed and kept down by other women to expel the after-birth and if this fails a man is called and he presses her stomach with his feet.

The date, day and hour of the child's birth are mentally noted with a view to drawing up a horoscope later on. The naval cord is severed with a sharpened bamboo—never with a knife—without delay and in same places even before the after-birth has come away. The father of the child is always near by, but no other men are present when a woman is giving birth.

After birth the child is bathed in cold water everywhere except Yabon, where warm water is used, and the woman is likewise washed and cleaned and shifted a little. The after-birth is placed in a bamboo receptacle and buried below the house.

The naval cord after being tied in a knot is dressed with a little sessamum oil and the scraping of sweat and dirt from the handle of a rice pounder. This practice of scraping the rice pounder is also common among Burmese and Shans.

Smells of frying grease are avoided. The mother then lies near a fireplace for periods varying from four or five days to four or five months. This practice is said to ease pains in the head and giddiness. Even when the period of lying is prolonged, she usually goes and bathes five or six days after birth. Between 15 days and two months after the child is born a small offering of flowers and parched corn is made to the *hpoongyi* and he is requested to draw up a horoscope. This is done in case of every child. The horoscope merely records the year, month, date, day and hour of the child and is inscribed on a small piece of bamboo, 6 × 1½ inches, with a stile, on the outer side of the bamboo. A little oil is then rubbed over the inscription which will be legible for a lifetime. This horoscope is taken and presented formally to the baby and the assembled elders call a blessing on it. The horoscope is kept carefully by the child's parents and is consulted later in case of illness, to select fortunate days for initiation into the priesthood and marriage. It is not used in connection with journeys or trade. Marriage is avoided in the month of birth. After a successful birth in the Humai and Maingkwin tracts an offering is made to the Hso mông *nat*. The naming ceremonies vary among different clans, and I had better give them clan by clan. (Wherever the Humai clan is referred to it must be taken, unless the context clearly indicates the contrary, that the four administrative tracts—Pankha, Sauram, Sailen, and Humai—are included.)

Humai Clan.—There is a fixed order of names as under:—

	Son.	Daughter.
1st Child	A Nai	Ye.
2nd do.	A Nyi or Nyan	I.
3rd do.	A Lun	Am.
4th do.	A Yai or A Sai	Ai.
5th do.	A Ngo	O.
6th do.	A Luk or Nga	Uk.
7th do.	A Chet	Et.
8th do.	A Pyet	Ip.
9th do.	A Kan	Not known.
10th do.	A Sip	Not known.

These are the regular names, but variations are permissible, and we find among males such names as La Sau, La San, La Mun, La Man, La Kyan, La Awng, and among females Ye Htawn, Ye San, Ye Mun, Ye Man, Ye Kyan and Ye Awng. The names of the 7th to 10th son, Chet, Pyet, Kan and Sip, simply follow the Shan numerals, all the other names have no meanings. The irregular names given at haphazard are not governed by the day of birth.

Maingkwin.—The first five sons are Ai, Ye, Sam, Yai, and Ngo and the 8th daughter U, otherwise the names are the same as in Humai. When the horoscope is drawn up the *hpoongyi* at the same time gives a second name, which is governed sometimes by the month and sometimes by the day of birth.

The first four Shan months are Lün Sing, Lün Kam, Lün Hsam and Lün Hsee and the first son instead of being La Ai might be called Ai Sing, Ai Kam, Ai Hsam, Ai Hsee, etc. If the day instead of the month were followed La Ai, if born on a—

Monday, would be ... ... Ai Chya,
Tuesday, „ ... . Ai Sa,
Wednesday, „ ... ... Ai Yu,
Thursday, „ ... . Ai Pan,

and so on.

Manmawk.—The Maingkwin method is followed in the regular order of names, but the alternate names as governed by the day of birth seem different. La Ai, if born on a—

Sunday, would be ... ... Eing Ta.
Monday, „ ... ... Kye Awng.
Friday, „ .. .. Pyin Nya.

Likewise the first girl Ye would, if born on a—

Sunday, be ... ... Awng,
Monday, „ ... . Nyeing,
Friday, „ ... . Man,

and so on.

A person is known by either name, *i.e.*, the one of serial order or the other. A man who has children or grandchildren is known as the father or grandfather of the eldest living child as Paw Ai, Paw La Sam, Pu Awng, Pu Nyaing, "Paw" being the word for father and "Pu" for grandfather. Women likewise are known as mothers or grand-mothers of their children and grandchildren as Mye Ai, Mye La Sam. Ya Awng. Ya Nvein.

Mye=Mother. Ya=Grandmother.

This custom is common to all tracts. The serial order follows the offspring of each woman, not of the man. Thus if a man has two wives, the first son of each would be La Ai. It has never been known that an eighth daughter was born to one woman.

Manton.—The method is the same as that followed by Maingkwin above, and besides the fact that no eighth daughter has been born a 9th and 10th son are also unknown. The alternate names following the day of birth also differ from Maingkwin and we have Ai Hsawng, Ai Hpya, Ai Yai, Ai Kaw, Ai Swi, Ai See, Ai U, Ai Maung and Ai Awng as alternatives for La Ai. Girls are called by the names in the regular serial order and not generally by alternate names.

Manpat and Manlon.—The method is the same as Manton above. An 8th and 9th and 10th sons have been born, however, to one woman.

Manpun and Yabon.—There is no serial order of names and the *hpoongyi* selects a suitable one and the child is called by this.

CHAPTER X.—Infancy, Youth and Maidenhood.

There is no ceremony in connection with earboring. Girls have both ears bored and men only one, the left; in exceptional cases the right ear, and sometimes even both ears. The boring takes place at any time between six months and ten years, but usually when the child is one or two years old. A black thread is first passed through and this is turned about. Then the hole is gradually enlarged by the insertion and addition of many straw stalks to receive the long silver ear-tubes worn usually ½ inch in diameter. Boys are tattooed when about 12 or 13 years old. The tattoo is more spacious than that of the Burmese and often extends from the ankles right up 8 or 10 inches above the waist. This is done in black. Above this in the chest, shoulders, neck, face, forehead and even the top of the head are tattooed in red. The red tattoo is usually in the shape of various square and oblong 'inns' or charms. That in black is often tastefully executed, figures of fabulous birds, reptiles and animals, 'bilus' etc., being interspersed between filigree and lattice-work patterns, and the whole edged off with most elegant spear heads or spires. In addition to the tattoo men insert pieces of silver as large as a two-anna bit as charms under the skin and the oxidation causes small black patches. Girls are never tattooed. With the exception of the few boys that enter the *kyaung*, children of both sexes have no school; they stay at home and play, and in consequence the percentage of little persons is very small. At 9 or 10 years they begin accompanying their parents to the *taungya*, carrying water, minding younger children and generally assisting them there, and by the time they are 17 or 18 a girl or boy is capable of entirely managing a *taungya* of his own.

About 15 the girls also begin weaving their skirts, but it takes four or five years before they can manage without help from their mothers.

CHAPTER XI.—Courtship and Marriage.

The customs vary from clan to clan, and I had better describe a few, confining my remarks to the points of difference as regards others. Monogamy is general. Although polygamy is not prohibited, it is not indulged in, as experience has taught that peace is not advanced thereby. Polygamy is unknown.

Humai.—At 16 or 17, in case of males, and 15, in case of females, courtship is begun but marriage does not usually take place till the man is 20 or 22 and the girl about 18.

About 10-30 or 11 P.M., when he thinks the parents have fallen asleep, the youth approaches the girl's house, blowing a thin shrill melody on his flute or playing his lyre (*saung*).

He creeps up the steps, stealthily opens the door and enters. Should the door or floor creak, he makes a peculiar noise with his lips—"kyu, kyu, kyu." This is said to be done out of respect to the elders.

Going to the cookroom, which is also the sleeping apartment of the children of the house, he pokes up the fire, wakes his sweetheart, calls her to the fire and converses with her there. These meetings are extended to the early hours of the morning, but at the second cock-crow, *i.e.*, about 4 A.M., the youth must leave. It is said improprieties never occur in the house. Should their feelings overcome them they meet each other in the jungles near the *taungya* during the day.

When intimacy and friendship are sufficiently advanced, the youth offers a secret present, such as a silver box, a bangle, a chunam box, a reel of black thread, etc., in token of his affection, and she gives him a present too, usually a kerchief woven by herself—a stock of these being maintained. The girl is at liberty to accept these presents or pledges from as many youths as desire to emphasize their love, but once she has decided her choice she returns those of the rejected lovers. The accepted youth must then steal her. Supported by a bachelor friend he takes her one night to his own house and makes her over to his parents. The following night three male messengers go to the girl's house and ask for her. If the girl's

parents are unwilling, they make some excuse and the girl is immediately brought over by the three messengers and handed back, and at the same time they make a present of a rupee and two yards of cotton cloth to her parents, to show that no ill-feeling is entertained. If the girl's parents agree they ask if everything is ready for the marriage feast. If preparations are complete, the girl is brought back to her parent's house, a lucky day is selected—not more than eight or ten days distant—and the marriage takes place.

If, however, preparations are not complete, the girl continues to live in the house of her lover till a few days before the marriage and, as before, she is then returned to the house of her parents. Should this intervening period be for a month or two only the girl sleeps with the parents or sisters of her lover, while he sleeps in the visitors' apartment. But if, owing to inability of the boy's parents to complete arrangements early, and the period is protracted, a secret compact is entered into between the parents on both sides that the young couple should stay and sleep together till such time as money and provisions for the marriage are forthcoming when, as before, the girl is, just prior to the marriage, taken over to the house of her parents.

Marriage takes place in daylight, the ceremony lasting all day. A lucky day being selected by the *hpoongyi* or *saya* from the *kyansa* the three former messengers take a viss packet of wet tea to the girl's parents. This is divided into numerous tiny packets and distributed, by way of invitation, to all friends and relatives. The boy's parents issue similar invitations. The day having arrived friends and relatives collect in both houses and there is much going to and fro. Singing—but no instrumental music, excepting the flute—is indulged in.

The three above-mentioned messengers open the ceremony by taking over a packet of wet tea, a packet of *ngapi* and a bunch of plantains to the bride's house. These are accepted: a small packet of tea is given in return and the price of the girl is asked. The messengers go back and an hour or so later return with the price of "milk drunk by the bride." This is Rs. 5 in the case of plebeians and Rs. 10 should the girl be of kin stock. The price of milk must always be paid first and is not included in the price of the girl. Her price is not fixed. Two or three male representatives are told off by the girl's parents to make the demand, as it is improper for the parents themselves to argue the point. The representatives, however, have been previously informed by the girl's parents of the amount they think the boy's parents can pay and they try and make a good bargain of it, usually demanding Rs. 200 in the first instance.

The groom's three messengers go backward and forward, bringing a fractional part of the price at each visit, when much bargaining takes place, one side demanding more, the other craving for a reduction. By the time the fifth or sixth visit is paid the sun is well to the west and both sides have come to some understanding, then a final visit at which the remaining balance of the price agreed on is brought over. The original demand of Rs. 200 has probably come down to Rs. 50 or Rs. 100. At the final visit the three messengers are accompanied by a whole host from the groom's house, the groom, but not his parents, also going over. The delighted parents of the bride cry out and ask which young man is their son-in-law, and on catching sight of him throw a white cloth over his head. The bride is led out and every person from the house joins in swelling the previous host, and the whole lot repair to the groom's house; the bride's girl friends carrying her belongings in baskets. Each carrier must receive a rupee and a yard or so of cotton cloth as her fee, but the one that carries a mat (used to lie on) gets only 8 annas.

It is now quite 7 or 8 P.M. Blessings are showered on the heads of the young couple by the various elders—health, wealth, strength—and a large family are besought and after much friendly gossip the meeting disperses.

Some of the bride's friends remain with her the first night and the groom has to go and sleep in the visitors' apartment and sometimes in another house.

Marriage takes place with Palaungs of any other tribe, but intermarriages with other races is very rare. There have been a few cases in which Chinamen have taken Palaung women, but Palaung men have never married Chinese women. In a few cases Palaung men have married Shan women and *vice versâ*. Such cases usually results in the wife adopting the husband's nationality, but the opposite effect too is not unknown. Only in one case did a Kachin marry a Palaung woman and adopted Palaung nationality.

The groom's parents bear all the expenses of the marriage and the food; tea and fruit distributed in the bride's house is provided by the groom.

After marriage a small part of the cookroom is walled off as a temporary sleeping apartment for the new couple until some permanent arrangement by extension or expansion of the house is made. The groom must depend on his friends for this as he is too modest to do it for himself.

Maingkwin.—Courtship is much the same as in Humai, but the young man usually accompanies the secret pledge with a small sum of money, say Rs. 5, which he agrees to forfeit should he prove unfaithful.

The girl is not stolen, but both parties inform their respective parents of their intentions, and on receiving approval, which is almost invariably accorded, two old men are sent by the boy's parents to the girl's house with a small haversack, a little wet tea, some green tobacco and yams (peing-u) and a 'pyi' basket. The presents are accepted, but the haversack and 'pyi' basket are returned. The groom then prepares collecting food, etc., and when the lucky day has been selected and friends invited, the marriage takes place. Unlike the Humais, the Rao-kwangs begin the ceremony about 5 P.M.; it goes on all night and finishes at daybreak.

The two old messengers carrying the haversack and 'pyi' basket first take over Rs. 3 as the price of milk, then on subsequent visits Rs. 5 for the relatives of the bride residing with her, then Rs. 10 or 12 for all other relatives, then Rs. 2 from the village elders and last of all, in various small instalments, the price of the girl. The customary price is Rs. 50, but sometimes more, sometimes less, is paid and accepted.

Manmawk.—Courtship and marriage is the same as in Maingkwin, but marriage takes place in the day, as among the Humais.

The messengers selected to go to the girl's house are two old women, not men. At first they take over a small packet of tea and acceptation of this is tantamount to acquiescence in the proposal, otherwise some excuse is made and the present declined. If accepted the two old women the following day bring two viss each of *ngapi*, salt, wet tea and tobacco. The girl's parents invites a few friend to witness this presentation. The present is divided into minute packets and sent out as invitation to all friends and relatives to the marriage which takes place within eight or ten days.

The price of milk is Rs. 7 and the price of the girl varies from Rs. 40 to Rs. 200 according to the circumstances of the bachelor's parents.

At the close of the marriage ceremony, when the bride arrives at the house of the groom, her parents formally present her to the groom's parents with a packet of wet tea and beg the latter to take good care of her in future. Whenever, in this as in other tracts, the bride lives in a separate village to that of the groom the marriage takes place in the bride's village, the groom selecting another house where he and his parents put up. After marriage the bride amongst all clans invariably goes and lives in her husband's house.

Intermarriage with Kachins has never occurred and with Shans very rarely.

In this as in other tracts should the parents of either side object to the match it may be broken off, but if the young people persist the parents must give way or they elope. On their return the ceremony of marriage is gone through, as if nothing had occurred.

Manton.—The Manmawk method is nearly followed. In addition to the two women messengers engaged by the groom's side, the bride's parents send two women messengers at the commencement of the marriage bearing a skirt, a pair of black gaiters, a jacket, a coverlet and a turban from the groom's parents. In addition to the day a lucky house has to be selected for the commencement of the marriage; this is either in the morning or evening, so that the ceremony lasts all day in the former case and all night in the latter.

The first present taken by the groom's two women messengers is two bundles of plantains, two packets of wet tea and a rupee. All instalments of money are taken in a 'pyi' basket, at the bottom of which, outside, a two-anna piece is stuck with a little wax.

First the price of milk which is only Rs. 1-2, then Rs. 6-4-0 for all the bride's relatives and then the price of the girl in various instalments, the price eventually hinging on the bargaining abilities of the messengers on both sides. An amicable solution is always arrived at.

After the white cloth or turban is thrown over the groom's head, he and the bride 'kādaw' (pay respects on their knees) to the parents of the bride and to the elders.

When the procession moves to the groom's house the bride's parents do not follow, but depute some elders to hand her over to the parents of the groom. Then the new couple again 'kādaw' to all elders present and to the groom's parents.

Manpat.—The custom is the same as that in Manton with the exception that no sooner do the girl's parents agree to the match, the girl goes to the boy's house and lives two or three days with him and then returns. The price of the girl is fixed at Rs. 11-4-0, the price of milk to the mother Rs. 2; the father for his paternity Rs. 2 and relatives are bought off with pice.

The ceremony takes place either by day or night as decided by the *hpoongyi* according to certain fixed rules of procedure regulating propitious and unpropitious hours.

After marriage the young couple live in one side of the visitors' room which is enclosed for them, but here, as elsewhere, on a second son marrying, the first moves into a new house. And if before marriage the girl conceives and the man hesitates about marrying her, she just walks over and lives with him and forces him into marriage. Should he still object he must pay a heavy fine—in Manton this is Rs. 150 to the parents, Rs. 15 for the *kin* or village *puche*, Rs. 2 and a viss of dry fish for the village elders.

In Manpat it is less, in Manpun Rs. 80 to the parents and Rs. 20 for the village elders, and in other tracts according to custom.

Manlon.—On the young man blowing his reed and reaching the steps of the house of his lover, he attracts her by cracking the nails of his thumb and forefinger together. The girl comes out and they go to the granary, jungle or elsewhere to gossip. The man must not enter her house, or detain her long. Should any misbehaviour occur, the girl informs her parents, where the man must take her, or pay a fine of Rs. 100 to the parents and Rs. 15 for an offering to the nats as a purificatory offering. Whatever is left of the Rs. 15 after the offering is appropriated by the village headman.

In other cases the courtship extends for one or two years, more so if the parties are young. They exchange presents which are returned should the courtship be broken off.

When the man is ready he gives the girl a small packet of tea and this she shows to her mother, who shows it to her husband. If they object the girl returns the packet and the engagement should be broken off. But if the young man persists, the girl's parents give way, and again the tea is presented and accepted. After this the way is clear.

Two male messengers go from the groom taking a packet of tea and formally asking for her hand. This is agreed to and a fortunate day is selected at the earliest possible date. The ceremony takes place at night, as in Maingkwin, commencing after dinner about 8 or 9 P.M. The two aforesaid messengers take the various presents—Rs. 3 for milk of the mother, annas 8 for the village headman, annas 8 for elders, then the bride's price. It is customary to pay Rs. 100 for the bride, though if the man be impecunious less is accepted. At times Rs. 150 or more is given, but this is mere bluff and the excess over Rs. 100 is always returned to the groom.

Towards dawn when the last instalment is paid, a body of men leaves the groom's house carrying plantains. Another body from the bride's house blocks its way but, being bribed with plantains, allows it to pass. On coming out with the girl the first party is again stopped and a distribution of small haversacks is demanded before exit is permitted. For seven days the bride and bridegroom have to manage without any arrangements being made for them. After that an extension of the house is made and they then go over and pay their respects to the bride's parents, who give them a blessing and sometimes the more substantial present of a buffalo or bull.

Marriage with women of other clans is not countenanced. If the young man persists, he is told to go and live with his wife, as the *nats* of Manlon do not look with favour on such unions. Men from other clans may take women from Manlon, but in that case must come and live in Manlon and live properly with their wives, otherwise the Hsŏ möng *nat* will soon drive them away.

Manpun.—The custom is much the same as that in Manton, but the different presents vary a little.

The price of milk is Rs. 2 and relatives are bought off individually—Re. 1 to each near one and a two-anna bit or so to others.

Wives are obtained from Yabon but no other clans. There has been no intermarriage with Shans or Kachins.

Yabon.—The Manmawk custom is followed. The customary price of the bride is Rs. 50.

CHAPTER XII.—CONSANGUINITY.

A man may not marry his mother, daughter or his brother's or sister's daughter, his paternal uncle's daughter or his aunt.

A woman does not marry her father, brother, son, uncle, nephew and certain cousins. For further relationships see tables attached. (Figs. 9 to 13.)

TABLE A.—HÜMAI.

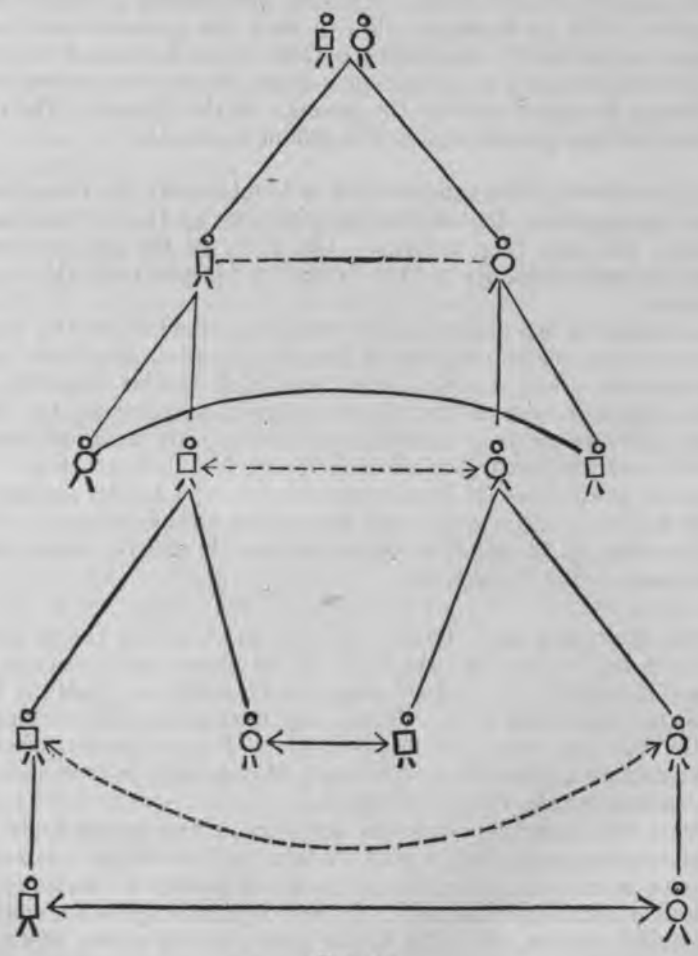


FIG. 9.

In this as in all tables the male is shown as □ and the female as ○. Where marriage is permissible the man and woman are joined by a continuous line —— and where marriage is not permissible by a dotted line - - - - - - - - - - (Fig. 10.)

TABLE B.

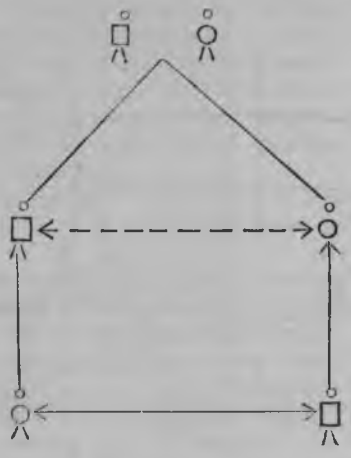


FIG. 10.

The children of these first cousins could also marry and the first and second cousins could also marry. (Fig. 11.)

TABLE C,

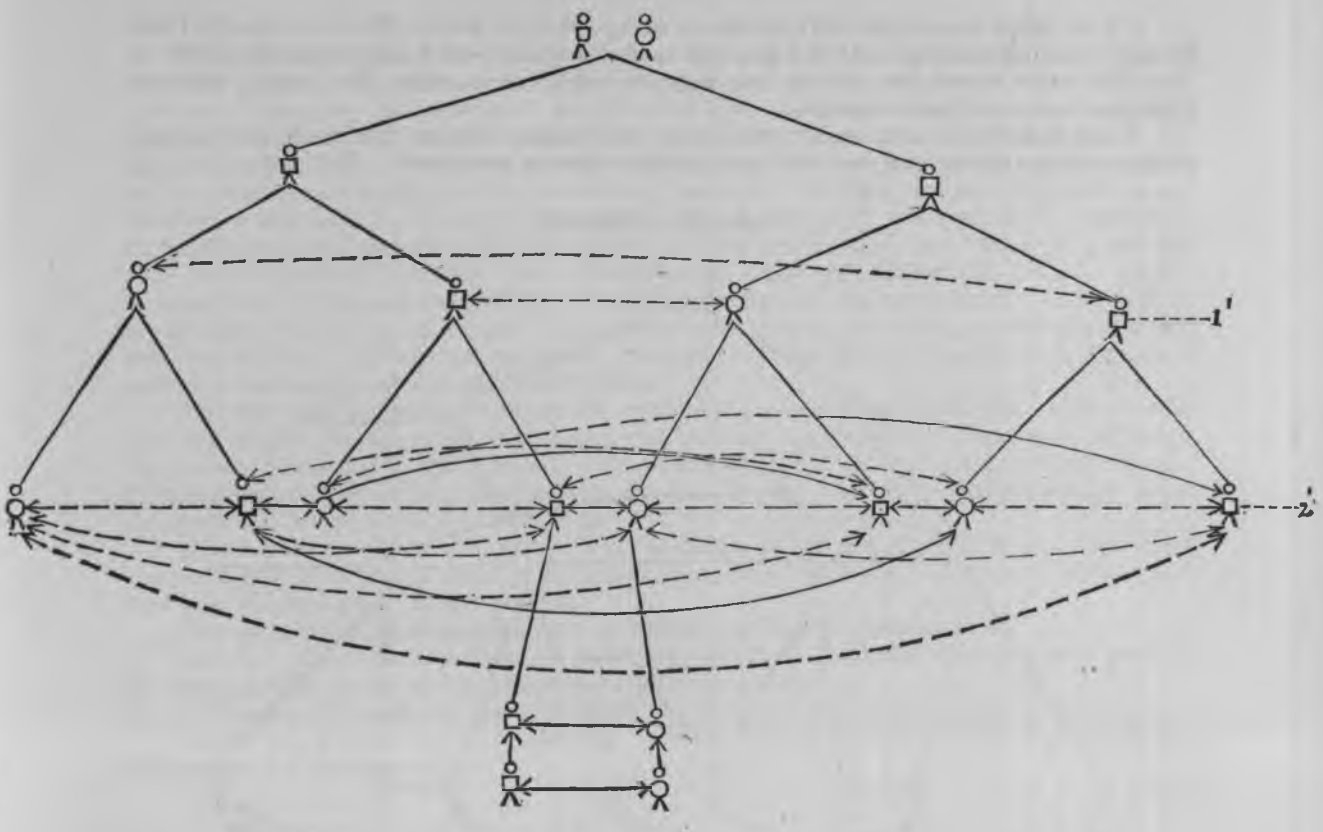


FIG. 11.

TABLE D.

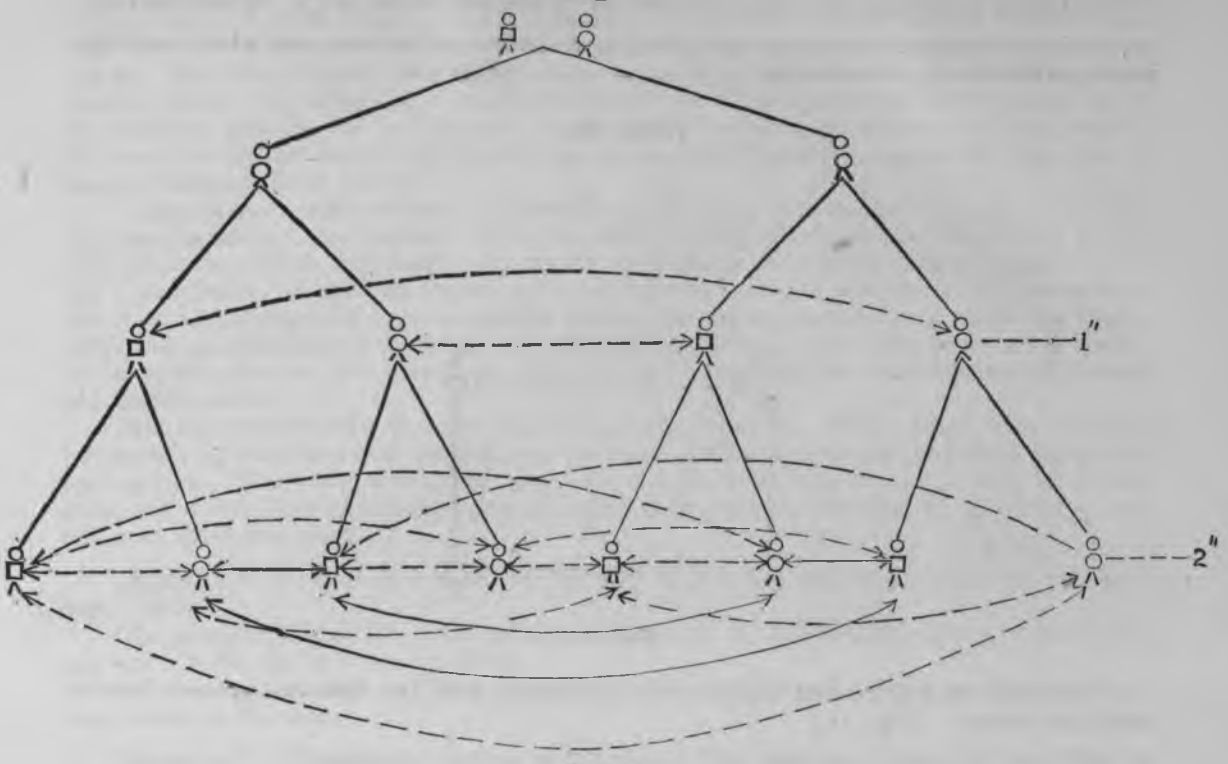


FIG. 12.

All the other clans agree with the above except Manpat which differs as regards Table D only, allowing marriage with the paternal aunts, daughter, and Yabon as regards Table A.

The latter would not permit marriage of the third cousins, but would withdraw objection in case of fourth cousins.

The former does not consider there is any relationship between the children or grandchildren of two sisters and free marriage between them is permitted. (Fig. 13.)

TABLE D.—MANPAT.

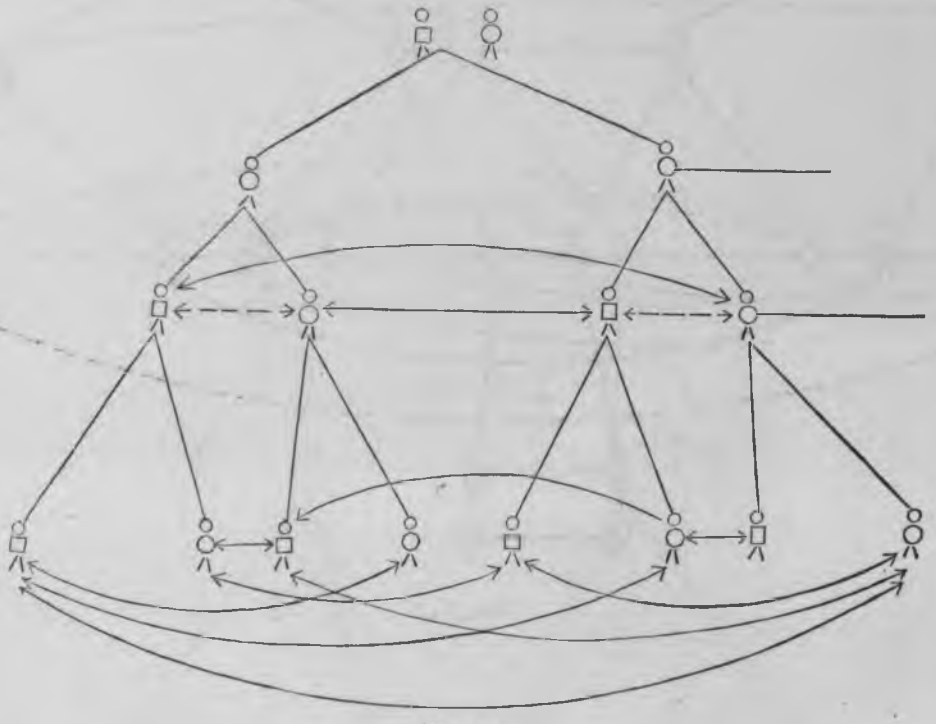


FIG. 13.

CHAPTER XIII.—DISEASE AND ILLNESS.

When illness occurs the 'Zăda' or horoscope is consulted by a *saya* or *hpoongyi*, who suggests a remedy by consulting his 'Kyan-sa' which appears to be a complete "Enquire within upon everything." The 'Kyan-sa' is a book made of Shan paper, strengthened with varnish and folds up like a fan. Both sides are written on. On the

first space or page a cycle of 60 is written in six horizontal lines, ten figures in each line. The age of every person can be readily reckoned. Thus the present year is 13. The Zada always has the year of birth. Suppose a girl was born in the year 58, she would be 15 years of age now, two years from last cycle and 13 of this. An old man born in the year 2 would be 71 years old. This cycle also serves as an index for the book. A person of 25 years age is ill. The cycle suggests the page of the book to be referred to and there various remedies are written. These are usually in the form of offerings, *e.g.*, a miniature bridge should be made, the branch of the banyan tree raised by a support, or an offering made to the *kyaung* or *nats* or a small sand pagoda erected. The bridge might consist of three bamboos with a round bamboo basket filled with sand placed at each corner and a small paper flag planted in each. Owing to the frequency of supporting the branches of a banyan tree some trees will be seen with a hundred or more posts under it, just long enough to reach the lower branches.

The offerings to the *kyaung* usually consist of home-made candles, paper flags and balls of parched rice, the number of each being the same as the number of years of the person diseased.

An offering to the house *nat* would likely take the shape of two fishes, two flasks of water, two flags, two small bunches of flowers—while one given to the Hsö möng *nat* would be ten of each and ten small lumps of wet tea in addition.

A few herbal medicines are known, but there are no real doctors.

Should illness be general the entire village would join in a big offering at the shrine of the Hsö möng *nat*, or perhaps make a big bridge in the centre of the village where it would be of no practical use and constitute an obstacle. In case of other calamities, such as cattle disease, worry by tigers, an offering is made to the *nat* of the land.

In some illnesses which are thought to be due to persons possessing the evil eye, "inns" or charms are drawn on paper; the paper is then folded and burnt, and should the patient recover it is firmly believed that the evil spirit has been overcome.

CHAPTER XIV.—INHERITANCE.

When a man dies his widow elects to stay with her parents-in-law or return to her own parents. In either case she continues to be the property of the husband's parents or relatives and whenever she marries they receive half of the price originally paid for her from her second husband who thereafter owns her, but her choice of a new husband is free. Should she marry a brother of a first husband—a not usual proceeding—a small present suffices to be given to her parents. So long as she does not marry outside the deceased husband's family she continues to enjoy the use of her deceased husband's property together with the children if there are any and who have not gone out and made households of their own. Should they have left before the father's death, or leave after it, they are not entitled to anything necessarily, but an amicable settlement is always arrived at by aid of elders. The widow must give up everything should she remarry outside the family. There are no regular rules as to the division of the property, and as a matter of fact no division usually takes place.

The deceased husband's relatives are entitled to possession of all the children who have not left the family roof tree by going out making households of their own, although the mother is allowed to retain infants even should she shift to her own parent's house. Should such an infant girl grow up and marry, the deceased husband's relatives usually allow the mother a fair proportion of her price.

If both parents die the children still in the house inherit and if too young to look after their own interests, this is done by the grandparents and relatives, but those children who have married and gone out get nothing.

The property of an unmarried man or woman would go to the relations.

Should a person die and there be no widow, children, or relatives his property goes to the *kyaung* after the funeral expenses have been deducted.

In Manton it is said only male children inherit.

Should the deceased leave debts those persons who would be entitled to inherit are responsible for the payment.

A Bilu of Manpun.

FIG. 14.

CHAPTER XV.—DEATH AND BURIAL.

Everywhere when death takes place before ten years of age (except of course in the case of *Koyins*), burial takes place almost immediately whether it be day or night, and no vigil is kept. The child is supposed not to have reached the age of manhood. The corpse is wrapped up in a mat and carried out, the cemetery usually being in the west side of the village. Graves are from 2 to 4½ feet deep.

Above ten years of age the corpse is kept for a day or two, if under twenty years, the period gradually increasing with age up to a limit of seven days. A vigil is also kept. The limit of the vigil, too, is seven days and often the full vigil is kept even when the body is retained only a day or two. The length of the vigil is governed by the means of the deceased's relatives to bear the cost. A coffin either of split bamboos, plank, or the trunk of a tree split down the centre and hollowed out is provided, the division being made tight with sticky rice and paper. The vigil is the same as that usual amongst Burmese. Friends assemble in the death-house, gossip and gamble and are fed. Once the corpse is removed, only the near relatives remain. On the seventh morning or whenever the vigil ends, all again assemble and are fed and an offering of food is made to the *kyaung*, the deceased's clothes also being sent there. A *hpoongyi* preaches when the corpse is removed, again in the cemetery and again at the close, but what he says is not understood by the laity who are nevertheless very much impressed, believing, as they do, that it must be something extremely solemn.

It is read out of his *kyansa* and is usually Shan or Burmese.

The custom of placing ferry dues in the mouth or on the chest is everywhere observed. The sum varies from two annas to a rupee and at times a precious stone is placed. It is usual to make and keep ready coffins for *hpoongyis* and aged persons.

Cremation is reserved for the priesthood, *hpothudaws*, nuns, *kins* and their wives and blood relations, persons who attain a great age, and in some parts also to all village headmen and other officials and their wives.

In Manpat alone cremation is confined to wearers of the yellow robe and even *kins* and *hpothudaws* are buried. Although cremation is allowed the corpses of *kins*, etc., are never kept more than seven days, those of *hpothudaws* and nuns two or three months, and only those of *hpoongyis* up to a year or more.

On the death of a *hpoongyi* his body is washed and head shaved. The coffin being lined with layers of sand, lime, pepper, corn and powdered charcoal, the corpse is then placed in it and covered with a *thingan*. Some more lime placed over it, and the lid usually running in a slide placed in position and the opening secured with sticky rice and paper, or lac or oil and 'poonyet.' The coffin is then taken out and placed in the 'neikban' *kyaung*, a small temporary structure made of bamboo and thatch and old people keep watch. Should the period of watching extend many months four figures of 'bilus' are made and placed on each corner of the coffin to keep watch so as to give some assistance and respite to the human watchers and prevent the deceased from turning into an evil spirit. The coffin, especially if the *hpoongyi* is an old man, is often beautifully ornamented with mosaic work in gold and glasses of many colours. The corpse dries inside the coffin. At times a bamboo tube is fixed into it to carry off exuding liquid, the lower end of the tube being 2 or 3 feet under ground. In Yabon there is the extraordinary procedure of having a long upward bamboo tube running through the roof to carry off gases. The rosary and sometimes the alpen stock is always placed beside the *hpoongyi's* body, but no other implements. When the time for cremation arrives the lid is slid out, the corpse taken out, washed and replaced, the coffin closed and placed on top of the pyre where it is split open lengthwise with an axe so as to facilitate its consummation by the fire.

The fire is always applied to the pyre of priests by means of rockets which rush into it from a distance of 20 or 30 feet.

The start of the fire is the occasion of much rejoicing, music and singing.

Other pyres, *viz.*, those of *kins* nuns, etc., are set fire to by hand and not by rockets.

The pyre for a *hpoongyi* is much grander than those for other persons and it is surrounded by a 'Yazamat' or ornamental bamboo railing having four openings—each of which is cut off by the planting of plantain trees on its sides and from four very high poles at each corner is suspended a white cloth canopy on the lower side of which the figure of a spider is drawn in black. This figure is there to catch up any noisome odour and prevent it annoying the nats who live in the sky. Below I give a ground sketch of the pyre for a *hpoongyi* and that for other persons. On the ground from the pyre are spread first sand, then dry leaves and then a *thingan*. (Fig. 15.)

HPOONGYIS.

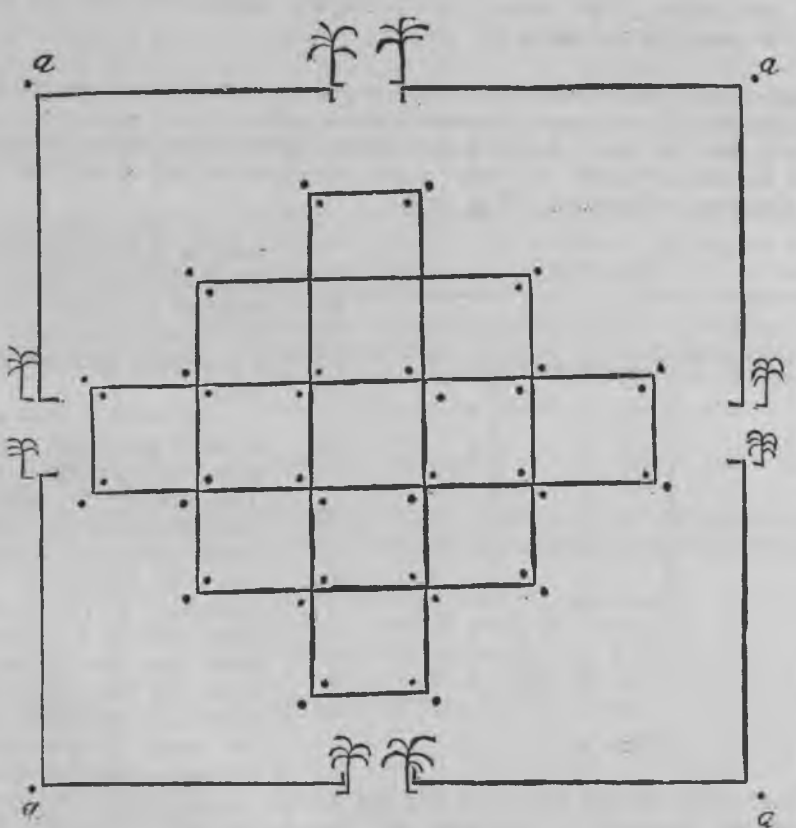


FIG. 15.

a a a a.—The four posts supporting the canopy.

The small dots indicate where posts are planted to enclose the fuel for the pyre. At each crossing there are two posts. (Fig. 16.)

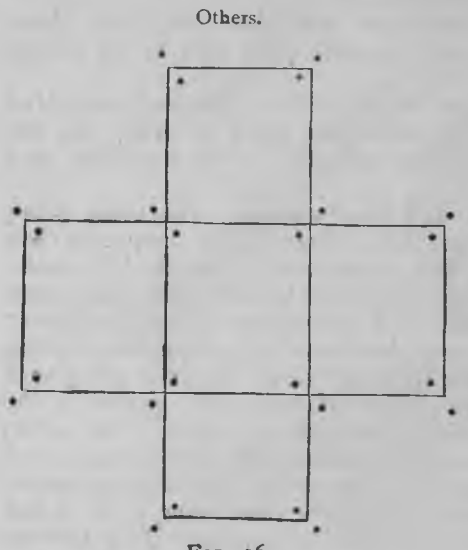


Fig. 16.

The pyre for *hpoongyis* is about 4½ feet high, the fuel being laid in nine cross layers. Other pyres have only five or seven layers and are not so high. Cremation among the Humais is always done in the forenoon and next day the bones are collected and put into an earthen pot. The pot is covered but not buried, and in the case of *hpoongyis* a gilded post 3 or 4 feet high is planted near it. Although the cemetery is to the west of the village *hpoongyi* may be cremated and his ashes buried in other directions.

Sometimes for two or three days prior to cremation the coffin of a senior *hpoongyi* is put on a huge wheel-less structure—a boat-like cart—the two sides of the framework being in the shape of two *nagas* or serpents with both their heads pointed in one direction and their tails in the opposite, while a gaily coloured *pyatthat* occupies the body or centre. The 'hpoongyibyan' does not coincide with the date of any other feast. It is usually held in Tabodwè or Tabaung when the peasantry have a little leisure.

Maingkwin.—When the corpse of a *hpoongyi* is placed in its coffin it is usual to place a little saltpetre and lime in the mouth. Also a two-anna bit as ferry dues.

The canopy above the fire is stretched on a bamboo framework and this framework is suspended from a bending bamboo. A *nat* is drawn on the canopy, not a spider. Unlike Humai 'Yazamats' are placed round the pyre of *hpothudaws* and nuns as well as *hpoongyis* and the number of cross layers of firewood in the case of a *hpoongyi* is from ten to sixteen according to his rank, while *kins*, *hpothudaws*, nuns and others have a lesser number.

The pyres of *kins*, *hpothudaws* and nuns as well as those of *hpoongyis* are set in fire by rockets. With the exception of *hpoongyis'* corpses, even of *kins*, nuns and *hpothudaws* are not kept more than three or four days.

Bones are collected seven days after cremation, put in a pot and the pot placed open on the ground. As in Humai a gilt post is erected near the bones of a *hpoongyi*.

Manmawk.—Besides ferry dues it is customary to place some food and 'kundauk' (jungle bean which takes the place of betel) near the corpse.

Besides the rosary a *hpoongyi* has his alpen stock placed in his coffin. Outside the priesthood cremation is reserved for the *kin* and elders of the *kin* stock. Village officials, elders, etc., are buried. The funeral pyre is slightly different in size and shape to that of Humai; the canopy is the same.

Manlon.—In the case of children under ten years no 'ferry dues' are put in the mouth, as it is thought they do not travel the same route as others.

The ferry dues for elder people is sometimes placed in the *pawa* or coat pocket. It is meant to pay either "ferry" or "kin" dues (octroi) in the land of *nats* and only a single demand is expected to be made. (Fig. 17.)

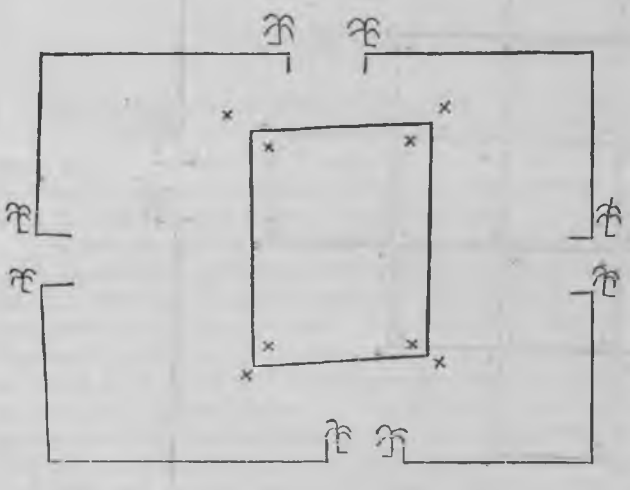


Fig. 17.

In the case of a *hpoongyi* besides shaving the head, it is plastered with gold paper and a little mercury is placed in the mouth. The pyre is built up in the shape of a rectangle, enclosed by eight posts, thus—

An altar of 3 or 4 feet of sand is piled up against one side of the pyre, the fuel being 6 or 8 feet high. The canopy is suspended as in Maingkwin, has the figure of a 'bilu' drawn under it. After the cremation the canopy or 'peiktan' is examined to see if there are any small holes in it. The more holes there are the better. They are a sign that the soul or spirit of the person has ascended to the land of the *nats*. If there are no holes it indicates that the spirit is still on earth. These holes are not caused by the fire as the canopy is out of reach of the flames. *Hpothudaws* and nuns also get canopies and examination has shown that in their cases the small holes never appear. They also get 'yazamats', but the *kin* gets neither *yazamat* nor canopy. Cremations are performed in the afternoon.

The bones of cremated persons are placed in a pot, that of a *hpoongyi* in a *thabeik* or alms bowl, and buried a foot or so in the ground, together with some boiled rice, money, and sometimes precious stones. A gilded post is erected in the case of *kins* as well as *hpoongyis*. The latter sometimes have a pagoda built over their bones. (Fig. 18.)

Manpat.—Same as Manlon but the four posts securing the pyre are on the sides thus—

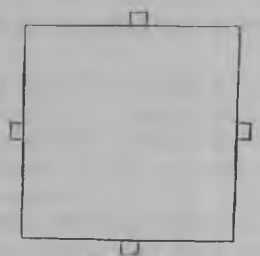


Fig. 18.

Manlon.—The canopy is suspended from four corner posts as in Hümai, but the shape of the pyre is rectangular and the plantain trees are at the four corners. (Fig. 19.)

The pyre is secured by 12 posts. The number of layers of firewood in the case of all males is eight, while that of females is nine.

Inside the coffin of *hpoongyis* no lime is placed and the corpse is placed naked and is not covered with the *thingan* which is placed over the coffin.

When the coffin is placed on the pyre and split open, it is inverted. The contents toppled out and covered with the empty coffin.

Only the *hpoongyis'* pyres are surrounded by a *yazamat*. The *kin's* pyre is also fired by rockets, but he does not get a gilded post placed near his ashes. Cremation always takes place in the evening. Only the bones of *hpoongyis* and *kins* are collected and placed in pots and buried. Those of elders are just left when the pyre is about to be set on fire. A *hpoongyi* delivers an address, not a word of which is understood by the people.

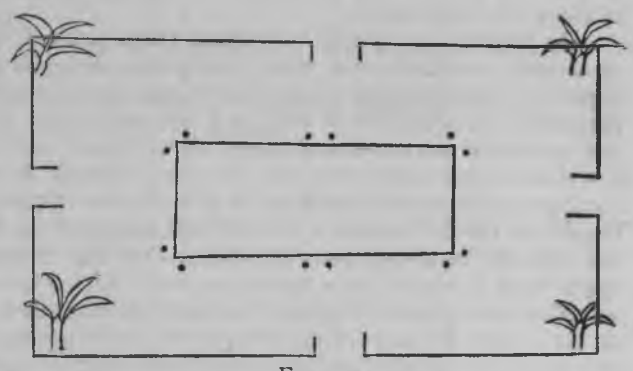


Fig. 19.

Manpun.—The corpses of *koyins* are kept only three or four days, while those of nuns and *hpothudaws* seven days. Should no mercury be obtainable some oil is poured into the mouths of the corpses of *hpoongyis*. Never mind how long the body is kept at least one human watcher is said to be present in addition to the four 'bilus'. The shape of the *hpoongyi's* pyre is the same as that of the Hümai *kin*.

Yabon.—In the case of *hpoongyi* a *thingan* is first spread on the ground, sand placed over this and the firewood then piled on it. The bones of *hpoongyis* are collected a day or two later, placed in a pot and buried, and sometimes a 'ku' or masonry cave erected over it in addition to the gilded post.

The bones of lay elders when cremated are collected and put in a cloth bag and the bag placed in a hole in the ground. Touching this bag a bamboo containing water is placed, the lowest knot being bored with a tiny hole, so that the water may slowly penetrate and moisten the bag, the idea being that the spirit of the deceased may be refreshed in the next incarnation.

Only ashes and charcoal are placed in the coffins of *hpoongyis* which usually are not kept more than three months.

Like the Burmese some Palaungs believe that the spirits of deceased persons remain in the house seven days after death, walking about the house and sitting down and sharing the meals with those still living.

Hearing that the spirits of infants returned to drink milk people in Manpun spread ashes on a *Sagaw* (bamboo tray) and place it near the doorstep, but no footprints were ever found. The Burmese, it is well known, declare that if ashes are spread near the threshold footsteps, pointing in an outward direction, will be found in the seventh morning after death, that being the time when the spirit takes its departure.

A curious custom of keeping a vigil when a *hpoongyi* leaves a *kyaung* prevails in Maingkwin and I believe is common in all parts. The departing *hpoongyi* doffs his robes, puts on ordinary clothing and remains in the *kyaung* for seven days. He is visited by his friends. The seventh night food is prepared in the *kyaung* by his parents and god-parents and the following morning the whole village is fed. This is said to be in return for the alms food they have fed him with—a repayment of favours known in Shan

as *Klum-tawp*. The vigil is called a *lak-le-htak* meaning a vigil of departure from a *kyaung* while the other is the death-vigil *lak-le-tai*. After the feast the *ex-hpoongyi* leaves the *kyaung*. In all tracts during the long watch over a *hpoongyi* the young people often come of a night and relieve the elders by dancing and singing with music from gongs, cymbals, drums and flutes.

CHAPTER XVI.—Occupations and Agriculture.

Tea is cultivated in Maingkwin, Manlon and Yabon and to a lesser extent in Manmawk, Manton and Manpun tracts. The cultivation is just beginning in the Humai tracts.

Paddy is the chief object of cultivation. Wherever the configuration of the land permits and a stream is present to lend its aid to irrigation, terrace fields are formed, otherwise *taungya* is the sole resort. The yield in terrace fields varies from ten to thirty-five fold; in *taungya* it is twenty to forty and fifty fold. Cotton is cultivated near the banks of the Shweli. Ponies are bred but mostly of the undersized scraggy variety. There are a few blacksmiths whose labours are confined to the repairs of agricultural implements but nowhere are they able to cast a ploughshare, which must wait the regular arrival of itinerant Chinese. In Chekan (Maingkwin) there is a gunsmith who can do anything connected with the matchlock or touchhole gun. In almost every tract there is one or perhaps two silversmiths who are able to turn out the ordinary trinkets and ornaments worn by the women. There are no goldsmiths. Petty trade is engaged in by a few who buy from Shans at the regular bazaars in Namkhan, Monkhat (Humai), Mama (Maingkwin) and Manton and retail locally. The women invariably weave their own skirts, gaiters, kerchiefs and haversacks and sometimes *saungs* (coverlets) and in Manmawk a rough cloth of which the trousers and jackets are made for men, but all other articles of clothing are purchased.

In addition to paddy of which there are a large number of varieties, beans, peas, sessamum, maize, tobacco, hemp, pumpkins, and gourds, *hkan-ya* (a small seed used in place of paddy), yams, plantains, sweet limes, guavas, papayas, cucumbers, chillies, peaches, damsons, pinapples, *the-gyo-kyi-thi* and jack are cultivated. The seeds of white pumpkins, peas and cucumbers are sometimes mixed up with paddy and planted together. Cattle and buffaloes and Humai pigs and fowls are also bred for sale as well as for use. In other tracts fowls are kept, but in some, like Manpat only cocks. Opium is not grown. A few small fish are caught in the hill streams. Betel will not grow and the betel nut, though it grows, will not fruit and the people hunt the jungles for the "kundauk" bean instead. This smells and tastes much like betel but is more pungent. Rice is taken down to Momeik, into Hsenwi, Molo and Nam-kan in pack bullocks for sale, but the quantity is not great. Sometimes a bullock caravan visits Bhamo taking tea for sale and bringing back salt and preserved fish, but these two necessary articles of food are chiefly supplied by Shans and Kachins who bring it from Bhamo on pack-bullocks and in the case of Shans by male carriers. A man is able to carry two baskets, each of 10 viss.

The greater part of the tea grown finds its way to Molo, whence it is rafted down the Shweli and Irrawaddy. This is wet tea. A small quantity is taken to Momeik. There is practically no trade in dry tea.

Tea.—A patch of jungle on a hill slope is cleared, but the larger trees are left to give shelter to the young plants. The seeds are gathered about November and sown singly, about 15 feet apart and 8 or 10 inches deep in February. The jungle is then cut and when dry, fired about April. The burning process does not injure the buried seeds but facilitates germination. They sprout about June or July. Next year all failures are filled up with fresh plantings. The growth is slow. When the young plants are a foot or two high all the big trees are girdled and later on felled and removed. The falling trees do little permanent damage. Thereafter the trees look after themselves. There is no pruning but the jungle is kept down between the trees.

Sometimes the seeds are planted in a nursery and the trees planted out when a foot high on ground previously cleared and burnt. Plucking commences when the plants are three or four years old and takes place three times a year. Once in the 5th or 6th Shan month (about April or May), again in the 7th or 8th month and lastly in the 9th or 10th months, the interval being two months between each picking. Only tender leaves are gathered. The picking begins early in the morning and is completed by noon or 1 P.M., when the leaves are immediately steamed and kneaded. If dry tea is contemplated the leaves are then exposed to the sun for four or five days. Further drying takes place by placing near fire and occasionally it is again sun dried. The price is from annas 12 to Re. 1 per viss. The first picking is the best, and the tea flowers are then obtained the largest numbers and dry tea is mostly made from this picking. In case of wet tea after the kneading process the tea is placed in wells. These wells are 4 to 6 feet deep with a diameter of 2½ or 3 feet, the bottom and sides being protected by the dry sheaths of the bamboo. It is pressed down, a mat spread over and weighted with large heavy stones. Each successive day's pickings are added till the well is nearly full. Each well contains from 250 to 600 viss of tea. Occasional douchings of water are made over the tea to keep it from drying and tea can remain in the wells a year without detriment. When taken out from the wells it is loaded in conical shaped baskets, each basket containing 22½ viss. A packload consists of two baskets or 55 viss, and the price at the place of manufacture varies from Rs. 8 to

Rs. 12 per pack. In Maingkwin it falls to Rs. 5 per pack. Whether engaged in tea, cotton and paddy, *taungya*, or terrace fields, the time of the Palaung is fully occupied. It is common to leave the house at 8 A.M. or 8-30 and not return till dusk. Women attend to the cooking. After cooking the morning meal, visiting the *kyaung*, taking some food for the midday meal the women and children leave for the *ya*, except those who have spinning, weaving, or other work at home. In the *taungya* cutting, planting, and reaping seasons the men also accompany, otherwise they tend the cattle, pack and load paddy or tea for sale, build or do the necessary repairs to the house, etc. The man does all the heavier and more laborious work and does not shoulder this on to the women like the Kachins. Where there are terrace fields he does the ploughing.

The following agricultural instruments are used:—

Plough (*Láfo*)
Harrow (*Hprang Láfo*) } Both these are of small size for use in terrace fields and are drawn by a single buffalo.

Scraper (*Lákaw*).—For scraping surface weeds. (Fig. 20.)

FIG. 20.

Weeder (*N'grawk*).—For uprooting larger weeds. (Fig. 21.)

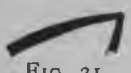


FIG. 21.

Sickle (*Lávai*).—Large and small: the latter for cutting paddy; the former for weeds and cutting grass for ponies.

Dibble (*Pla-maw or N'maw*).—Shaped like an elongated spoon to which a 6-foot handle is affixed. A man makes small holes with this on the ground while the woman drops in a few grains of paddy. The planting commences at the bottom of a slope and the top is worked up to.

Dama (*Bo-ka-mai*).—For felling *taungya*.

Axe.—For felling the larger trees.

Dagauk (*Pwi-gaw*) or crooked *dah* used for lopping off small jungle undergrowth, especially in tea gardens. (Fig. 22.)

Spade—Which is not more than 4 inches wide, fixed at an angle to the handle used chiefly for the formation of 'kazins.'

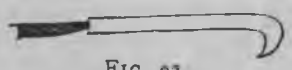


FIG. 22.

Dâshe (*Bo*).—Used to cut grass off 'kazins.'

Hoe (*Laluk-det*).—A miniature implement used only in cotton *yas*.

Kapya.—Woven with cane about 3 feet long and used for carrying loads; the centre part is 3" or 4" wide, presses against the forehead. The two ends narrow down and have hempen ropes attached to them.

Juk-na —An open work basket used for carrying grass and firewood.

N'Jawng.—A closely woven basket used for carrying grains.

Water bamboos (*Oniden and Onpok*).—Used for storage of water.

Pyem.—A small basket without cover worn by men at the back of the waist and in which the dâma rests. The women carry their *dahs* and other implements either in the basket or haversack.

Cauldron (*Maw-khang*).—Used for steaming tea.

Hai-neng.—Tea steamers.

Both men and women wear haversacks made of hemp or cotton uncoloured with a thin stripe of embroidery down the centre.

Instead of the *dahshe* a peculiar sickle called hpa-ngawk is sometimes used for keeping the grass down in *kazins*.

Hemp is cultivated in small patches and the fibre is used for making ropes, bags and *saungs*. The bark of the nettle is also used for ropes.

Dogs and cats are reared as pets but are never eaten. Goats, sheep and ducks are nowhere kept. In Manpat only male dogs are reared.

For carpentry work, *i.e.*, building *kyaungs*, *zayats*, and fixing house posts and making ploughs and harrows three kinds of chisels are used: two flat, a broad and a narrow one and a semi-circular one. A block of wood answers for hammer.

Nearly every house has a small 'kitchen' patch attached in which are planted beans, peas, golden pumpkins, cucumbers, chillies, sugarcane, mustard, a few onions, *pin-zein*, *kyet-khawethi*, yams and flowers (usually coxcomb and bachelor's buttons, purple and white), tomatoes, brinjals and the '*tabuthi*' according to season of year. The flowers are used as offering to *nats* and the *kyaungs* and pagodas.

CHAPTER XVII.—FOOD.

Although the diet is a vegetable one there is no objection to eating meat when obtainable. Rice is the main article of food and is partaken of at each of the three meals, at 7-30 A.M., noon and 8 P.M. Preserved salted fish and smoked fish obtained from Bhamo is a favourite condiment, besides *ngapi*. Small fresh fish and eels are caught and eaten.

Among the Humais alone cattle and buffaloes, pigs and fowls are slaughtered at feasts and eaten and fowls and eggs are eaten at all times. There is never any objection to the flesh of animals including ponies (and in places mules) when killed by wild animals and wild animals themselves including the tiger and leopard and bear are everywhere readily

eaten. Frogs, dogs, rats, cats and snakes are not eaten but mice are fried and eaten in parts. Beef is obtained from Kachins and pork from Kachins and Lishaws whenever those people have *nat* sacrifices. The leaves of various jungle plants are used in curry even when cultivated vegetables are at hand. The curry is particularly insipid as very little salt is used. Salt which comes from Bhamo by Shan carriers on Shan or Kachin pack-bullocks is said to be a source of goitre. In the Manpat tract salt is obtained from the Pangyang bazaar in Hsenwi and in Yabon and Manpun from Momeik. Compared with the Kachins there are very few opium consumers and they number hardly 10 per cent. of the adult male population. Liquor is drunk at all festivals and is purchased from Shans and Kachins. 'Kundauk' and tobacco with cutch and lime are chewed everywhere both by men and women; this discolours the teeth but does not make them black. Teeth are stained black or dark brown, by rubbing them with soot obtained by burning certain woods. This is said to strengthen and preserve them and prevent toothache and is considered to enhance good looks. The betel box containing kundauk, etc., is always proffered as a welcome to visitors. On the higher hills a palm like the sago palm is found. The pith is taken, cut in small pieces, dried in the sun, then ground into powder and steamed together with rice and eaten. There is no such thing as caste among Palaungs, but lepers are 'outcasted' and usually keep to themselves. There are a few in most tracts. Smoking is common and the pipe is everywhere prominent. Some women also smoke. The pipe is usually composed of bamboo, the root part being used as a bowl, but pipes with huge silver bowls of Shan manufacture, with detachable silver or wooden stem pieces are not uncommon. Pipe bowls of baked earth are for sale in every bazaar.

CHAPTER XVIII.—DRESS.

The men wear clothes similar to those of Shans, turban of white cotton cloth (or coloured silk) on the head, a jacket of white or dark warm material, and a pair of loose baggy trousers. The Shan straw hat is not common. Putties of blue cotton cloth are wrapped round the calves in cold weather and black boat-like shoes, which always appear much too big for the wearer with the sole studded profusely with hobnails are never missing. Even *hpoongyis* wear these shoes at times. The boy is dressed like his father, but wears a skull cap of many colours till he is 7 or 8 years old. Between that age and 14 or 15 his head is bare. Both sexes keep the hair short till 15 to 20 years of age when it is allowed to grow to its full length. When old, women usually again crop the hair short, and wear a skull-cap of blue cotton cloth.

Women wear gaiters of a strip of cotton cloth or velvet just big enough to cover the calf from ankle tied at bottom by attached string and tucked in under the calf ring at top to knee; a skirt 34 to 36½ inches long which is suspended from the waist by means of a girdle, falling to the knees and drawn up only in front to cover the breasts being kept in position there by another string on some cane rings or both. The skirt of each clan differs and will be described below. A short buttonless jacket of black or blue cotton cloth in the case of maidens and young women of black green or blue velvet with rather long sleeves, is common to all clans. The cut may be different but is not very perceptible. On the head a turban of black or dark blue is worn and in some clans this is surmounted by a hood which consists of a piece of white cotton cloth, some 30″ × 14″, folded breadthwise making it 15″ × 14″, then lengthwise bringing it to 15″ × 7″, a seam joining the 7″ sides. Young girls do not pull up their skirts in front and in the Humai clan it is customary to keep the breasts exposed till 20 years of age unless marriage takes place earlier, when the skirt must be raised. Girls up to 15 or 16 years wear a many-coloured skull-cap of yellow, white, green, blue and red and when this is discarded the turban is worn.

The skirt fits tightly and is always woven about a foot wide and three widths have to be joined horizontally together for the skirt with a perpendicular joint running down one side and securing the two ends, the girth being governed by the wearer's size. At the top of the calf just below the knee, 7 or 8 cane rings are worn tightly, a large number of loose cane rings or cane and grass are worn round the waist and sometimes a few round the chest just below the armpits. A broad flat belt of silver is also worn round the waist; the waist and chest rings are held together in front in strands by silver twistings or rings. Flat and twisted torques (opening behind) are worn round the neck and on gala occasions the jacket is ornamented with square and circular pieces of flat silver on which a design is stamped. These pieces go down the centre of the back, down both sleeves, round the neck of the jacket and down the lapels. The lapels, neck and sleeves also have a piping of red cloth from 1″ to 2″ wide. Tubes are worn in the ears, these tubes being made of the sheath of bamboo folded round to twice the thickness of a pencil, cut 6 inches in length and a flat piece of silver rolled round 5 inches of the length. A thin string is wrapped round the silver covering and from it is suspended a tassel of green, red and yellow wool or thread.

Silver hangings and tassels also ornament the turban and round and square silver pieces also run down the hood at times. Heavy silver bracelets are worn in the wrists. Women do not wear rings in the fingers, but men sometimes do. Years ago it is said that the dress of both sexes was a sombre black, but when the Palaungs came into contact with other peoples and saw them wearing colours they gradually introduced these colours into their own skirts, commencing with a little and gradually increasing it, till some clans have come to have skirts in which red predominates. Each clan evolved a separate design and this has become more or less permanent; both the Manpun and Yabon pattern are threatened with disappearance as the women are adopting the Manlon clan skirt.

Formerly women spun the turban worn by both sexes but now cotton cloth is bought for the purpose.

Humai.—*Skirt.*—Black grounding with thin stripes composed of pin stripes made up of white, red, blue, green and yellow. (Fig. 23.)

(It will be seen that when two widths are put together, the two narrow border stripes equal one of the broader strips.) Down the perpendicular joint, 1½″ on each side of the joint, embroidery made up of above colours in wool and cotton with the addition of purple is worked.

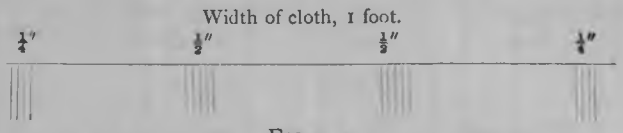


Fig. 23.

Gaiters.—Usually black, but sometimes of yellow, blue or green, but must be only one colour.

Turban.—Black with fringe embroidered in above colours, with silver hangings. Red thread tassels are also attached by young women and black thread tassels by elderly women.

Jacket.—Young women sometimes wear blue or green coats, but elderly women never anything but black.

Waist-rings.—Of cane mostly coloured black with 'Sit-si', some in red and a few plaited grass rings.

No hood is worn.

Maingkwin.—*Skirt.*—Width of cloth about 12½″ with 7 narrow stripes, ⅛″ wide. Grounding blue-black, with pin stripes of yellow, blue, white, and green composing of each stripe. The perpendicular joint is embroidered in the same colours for 1¼″ on either side of the joint. (Fig. 24.)

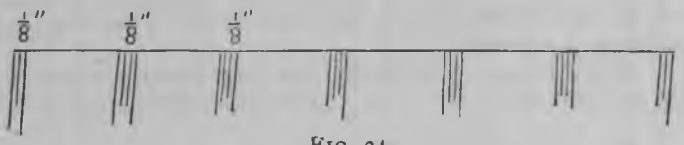


Fig. 24.

Coat.—Same as Humai but is just a trifle longer. The red piping is 1¾″ broad and does not run round the neck. The piping round the lower edge is only ½″ wide. Maidens do not pull up the skirt to cover their breasts, which are hidden by drawing the two sides of the coat together and running a needle through them. Unfortunately the needle is oftener absent than present and hardly assists their modesty. Down the centre line of the back there is a thin line of embroidery.

Turban—Is of black cotton cloth, longer than Humai. One edge is embroidered, while both have a fringe of red, white, blue, brown, green and yellow threads, and together with the fringe there are a number of silver pendants at one end.

Hoods are not worn except, in rare cases, by a few old women when it is the same as that of Manpat circle.

Gaiters.—Same as Humai. A few women wear shoes.

Manmawk.—*Skirt.*—Width of cloth when worn is 11″.

The black grounding is divided by stripes in which red preponderates, but when looked at closely pin lines of white, yellow and green are also seen. (Fig. 25.)

The perpendicular joint is embroidered 1¼″ wide with blue and purple in addition to above colours and with small pompons at every six inches. As soon as puberty is reached the skirt is kept drawn up and fixed under the chest rings.

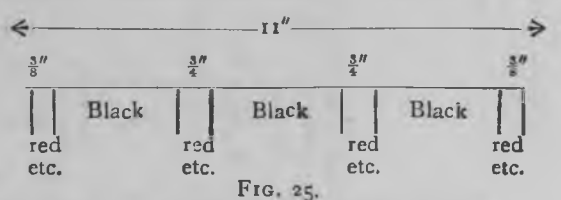


Fig. 25.

Jacket.—Same as Maingkwin.

Turban.—Same as Maingkwin.

Gaiters.—Same as Maingkwin.

No hood is worn.

After marriage women discard torques.

Manton.—Width of cloth when woven 11″ or slightly more, with two broad and two narrow stripes of red on a dark-blue grounding. (Fig. 26.)

Each 1¼″ red stripe is made up of six ⅛″ stripes of red divided by five pin stripes of green, white and yellow. The ⅝″ stripes are similarly divided by two pin lines. There is also a selvedge with a thin yellow stripe at top and bottom.

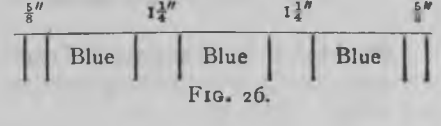


Fig. 26.

Jacket.—As Manmawk.

Turban—Is black. The fringe is of sombre colours and there are no silver hangings.

Gaiters—May be any colours except yellow and red.

Hood.—White cotton cloth with a black velvet band 2″ wide running from the peak down the centre of the back, with a thin line of tassels or threads in red and yellow down the centre of this band and along the seam on top.

Waist-rings.—Black cane rings at bottom with a large number of plaited grass rings above them.

Manpat.—*Skirt.*—Cloth woven about 34″ wide with three wide stripes of pretty sky blue divided by $2\frac{1}{2}$″ stripes of red. Each $2\frac{1}{2}$″ red stripe consists of six narrow red stripes divided by pin stripes of green, black, yellow and white. (Fig. 27.)

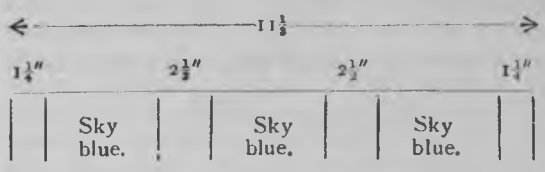


Fig. 27.

There is selvedge of yellow top and bottom.

Coat.— } As Manton.
Turban.— }
Gaiters.— }

Hood—Plain white with short coloured threads hanging from the seam and down centre of back.

Manlon.—*Skirt.*—Cloth when woven 11¾″ wide having a black grounding with one broad stripe down centre and 2 half stripes at edges. (Fig. 28.)

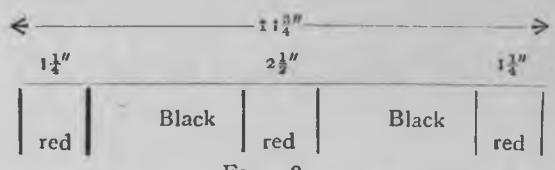


Fig. 28.

The $2\frac{1}{2}$″ red stripe has four pin stripes of yellow, black and white running through it dividing it into five equal narrow stripes. Similarly the $1\frac{1}{4}$″ stripe has two pin lines running through them. The top and bottom of the skirt are edged with a buttonhole edging of white cotton.

Coat.—As Manmawk.
Turban.— } As Manton.
Hood.— }

Gaiters.—As Manton, but they have a thin line of embroidery top and bottom but no lining is allowed.

Waist-rings.—The black cane rings remain in the centre with plaited grass rings at top and bottom.

Manpun.—*Skirt.*—The cloth is woven 11¾″ wide—much like Manlon, but the black is wider and the red stripe narrower. (Fig. 29.)

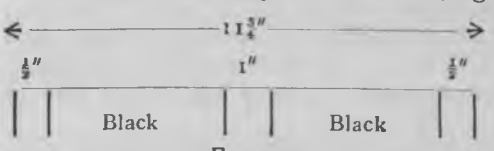


Fig. 29.

The red stripes have pin stripes of yellow, white, green and black running through them.

At top and bottom of skirt there is a narrow blue selvedge.

Jacket.— } As Manmawk.
Turban.— }

Hood.—As Manlon; it is fringed with silver hangings when this can be afforded.

Gaiters.—As Manlon, but are sometimes lined.

Waist-rings.—As Manlon.

Yabon.—*Skirt.*—The material is the finest used, and is woven about 11¾″ wide, with bright red as the predominant colour. (Fig. 30.)

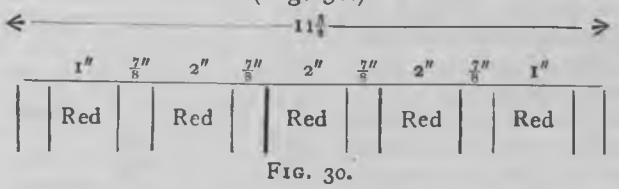


Fig. 30.

The pattern is not regular. There are four black lines ⅞″ wide enclosing three red stripes, each 2″ wide, between them. Then going outwards to either side one finds a 1″ red stripe with a ⅛″ black line at the edge. The selvedge is formed by pin stripes of white, red, yellow and green.

Between each of the three 2″ red stripes there are four and between each of the two 1″ red stripes there are two pin-stripes of green, black, yellow and white.

Coat.—As Manmawk.
Turban.—As Manpun.
Hood.—As Manlon.
Gaiters.—As Manpun.
Waist-ring.—As Manlon.

Raohtans of Manyawn Tract.—*Skirt.*—The cloth when woven is 11½″ wide, the grounding being red with four quarter inch stripes of black in centre and two ⅛″ stripes at each edge. (Fig. 31.)

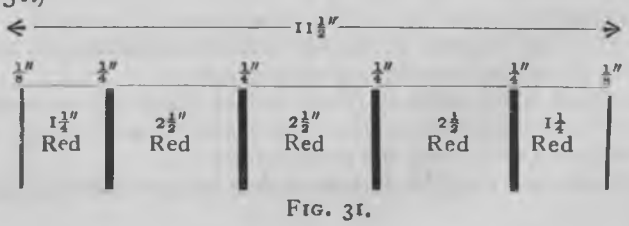


Fig. 31.

The pattern is irregular like that of Yabon which it resembles, except that the red is wider and the dark stripes narrower. The two 1¼" red divisions are divided into two equal parts and the three 2½" divisions into four equal parts by pin lines of green and black, but these pin lines are not perceptible at any but the nearest distance.

The jacket, turban, hood, gaiter and waist-rings are the same as Manlon.

Manjawp.—The Rao-jawp clan is said to have had a red skirt with thin white lines and their hood was the same as that worn in Manpat.

Coiffure.—Women put down the hair, catch it up in the turban and plait both round the head. Men make their hair into a knot on one side, and the turban is wrapped above, without enclosing the hair. The hair, almost without exception, is the happy hunting-ground of lice. White lice and a small variety of human flee are found on the body and in clothing. The sight of a man or woman sitting in the sun and picking these off his or her garments is not uncommon. The Palaung is, however, not quite so dirty as the Kachin. The women often bathe in the streams without removing the skirt, first washing the upper half of the body then lifting the skirt and washing the lower half. Men bathe naked. *Hpoongyis* bathe with warm water inside their *kyaungs*.

CHAPTER XIX.—Feasts, Amusements and Musical Instruments.

All amusements are more or less connected with religious or *nat* feasts, the death vigil and marriage being two that are not so connected. Marriage is a social compact; religion does occupy any part in the ceremony.

Musical Instruments.

Four kinds of drums are used, *viz.*, the giant drum or "King-de-ang" having both faces which are about 6′ and 4′ in diameter respectively covered with hide which is kept taut by a continuous leathern thong or stout rope passing up and down and stretching both. (Fig. 32.)

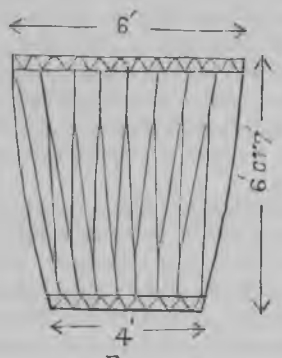


Fig. 32.

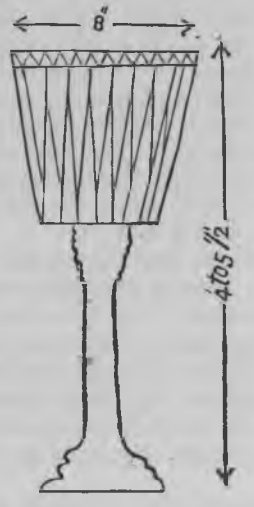


Fig. 33.

The long drum or Ching-Kăbai from 4 to 5½ feet long having a hide parchment spread on the top only, the stand being made of hollowed wood. (Fig. 33.)

The short drum or "Chu-che" about 2½ feet long and covered on top only, with a hollow stand like the long drum. Then there is the small drum which is merely a smaller edition of the giant drum and is about 3 feet long.

The big drum, owing to its huge size and shape, has to be placed in a stand and is beaten on both sides with sticks.

The other three drums are carried by the player suspended by a string round his neck, slung from the right shoulder across the left side and beaten alternately with the fingers and fist—"a combination of our big and kettle drums"—the proper tone being obtained by affixing a small quantity of hard gummy rice in the centre of the parchment or hide.

The giant drum is not used everywhere. Two gongs—a large and a small pair—and one pair of brass cymbals are played in unison with each drum and invariably accompany it. The cymbals for the giant drum are 15″ in diameter and the big gong 8 or 9 spans in circumference. With other drums these measurements diminish to 6″ and 5 spans respectively. There are also smaller gongs and cymbals which are not usually played together with drums.

(Fig. 34.)

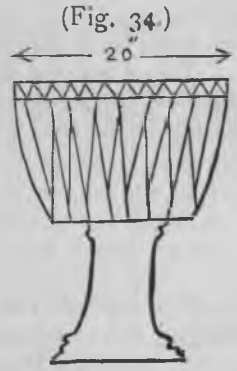


Fig. 34.

There are three kinds of flutes—a single, double and a treble reed. (Fig. 35.) The reed is of bamboo and is inserted into the bottom of a small dry gourd; the further or pointed end, where the stalk is, has a little bamboo tube inserted and this acts as the mouthpiece. Both reeds and mouthpiece are secured in the gourd with wax.

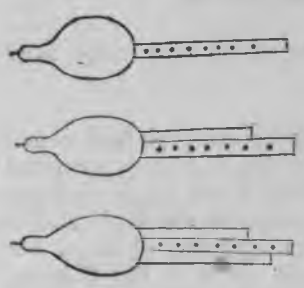


FIG. 35.

In all the tune is played on one reed which has one hole at the bottom for the thumb and seven on top for the fingers. In the double reed, the second reed plays a continuous bass like the bag-pipe. In the treble reed, besides the bass, the extra reed plays a continuous baritone. The "saung" or violin has a parchment head and three wire strings. It is much smaller than its European confrère. The great feast of the year is the feast known as the 23rd day feast held on the 23rd day or 8th waning of Thadingyut. When it is usual for all the residents of each tract to assemble at the village of the *kin* or where the senior *hpoongyi* lives. Every musical instrument available is brought out and there is much singing, shouting and dancing. It is at this time that in Humai, cattle, buffaloes and pigs are slaughtered. The feast is held near the *hpoongyi kyaung* and commences on the forenoon of the 7th waning, goes on all night and closes in the morning with offerings of food at the *hpoongyi kyaung* and an address by the *hpoongyi*. About midnight instrumental music ceases and then young men and women form groups of six or eight at short distances and compete in singing—one sex of one village pitting itself against the opposite sex of another village. A betel box and perhaps some food divides the two sides. At first both sides stand but on tiring sit down. In each batch there is a leader; the others take the part of chorus singers. This goes on till dawn.

In Maingkwin the girls are placed in the centre and the young men dance round them in a circle, singing love songs the while, and if there are any *koyins* to be made this is considered a favourite opportunity. Manmawk follows the Humai method. In Manpat the men and girls dance in a large circle with music, a huge bonfire being in the centre. The gathering takes place at Ho Chek as the senior *hpoongyi* of the tract is there. In Dawmaw, where the *kin* lives, there are only two houses. In Manlon the assemblage takes place at Mawnoi village (Pangtang village of this tract has a Haiktang man as *hpoongyi*, follows the "Yun" school and goes to Yabon for the 23rd day feast). In this tract the young men and women being grouped off in batches, the young men of one village surround the girls of another village and dance round them, revolving in a circle. In the Manpon tract the meeting takes place at Prangsin and villagers from Manton also go there as the *hpoongyi* is a very senior man. The Prangsin *kyaung* is said to be an offshoot of Manton. The sexes compete as in Humai and also dance round a fire as in Manpat. In Yabon the method is the same as in Humai. When dancing the girls move the legs in slow, graceful, but hardly perceptible movements. One hand at a time is raised as in the Highland fling and thus keeps time with the feet and music. Men use both hands and legs and wind these about in most bewildering style, while the body goes through a series of twistings and contortions, suggesting the boneless man.

Next to the 23rd day feast come the annual gatherings at the commencement, middle and end of lent. One or two days feeding takes place, there is some music and singing at night, and a "Sundaw" the following morning closes the proceedings. *Hpoongyis* travel about and pay respects to each other during the lent and the laity honour them with special marks and declarations of respect at these three festivals. A certain number of villagers also come to the village of the senior *hpoongyi* of the tract at the feast at the commencement of lent. In the Maingkwin, Manton and Manpun tracts there is a feast at the full moon of Tabaung. This is after the method of the 23rd day feast, but each village has its own gathering.

On New Year's day of which intimation is punctually and regularly received from Mandalay through written messages received through Momeik or *kyaungs* in Hsenwi, a feast which in parts lasts two days is held. All the smaller images are brought out from the *kyaung* placed in a 'neikban kyaung' and washed with water from water-wheels which are kept going by women pouring water into them. The larger images are washed inside the *kyaung*. All pagodas are likewise washed down; there is dancing, music, singing and feeding. The young people throw water on one another and take water to the elders, who wash their hands and faces with it.

There are no regular play troupes and the 'zat' and 'yôkthe' of the Burmese is unknown, but the people derive the heartiest pleasure in gossip and play and music with dancing at the above feasts.

CHAPTER XX.—GAMES AND SPORT.

Children of both sexes indulge in various games with large brown flat seeds (the gônnyin) more or less circular. These games are known in Burmese as

(*a*) Do,
(*b*) Be-galu-Nya-galu,
(*c*) Hti-daing-sa,
(*d*) Hkaung-shat,

and as they have probably been described elsewhere I shall not detail them. (*Note.*—If details are wanted I shall give them later.)

'Apauk hnit-sè' and other card games are played.

A game much the same as the Burmese 'pasit' or English Ludo is played, five shells being used instead of dice. There are eight counters to each player. A rough sketch of the board is given. (Fig. 36.)

'Odds and evens' are played with four shells.

The Burmese game of 'Ze' is also played with ten small stones.

Children do not make 'mud-pies,' but with sticks and leaves they amuse themselves by making miniature shrines, *kyaungs*, *pagodas* and figures of *nats*. They also take curved sticks and play at 'buffaloes'; two players taking a stick each, the two ends of which represent the horns, and twist these about in imitation of the animal's head when fighting, the stick of one player striking against that of his opponent.

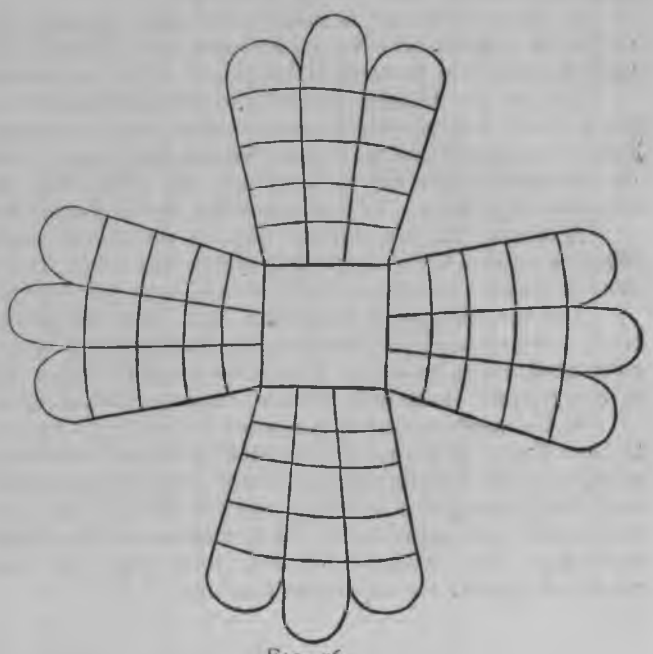


Fig. 36.

Tops, without metal pegs, are also played. Having no pegs, they do not damage one another. They are made of hard wood and are never painted. The shape is somewhat rude, but on the whole its outlines are much the same as the English top.

Boys amuse themselves with bows and mud pellets. These are also used to drive off birds from the ripening crops.

Arrows are used only against wild animals and they are sometimes poisoned.

The Palaung is not at all averse to handling a gun and shooting game, big or small.

Game is stalked or shot from a perch on a tree. Beating the jungle or driving is not in vogue. Spears are common and are used for protection against wild animals.

Das are always worn by men, the handle and scabbard being, at times, overlaid with silver work. Besides domestic and agricultural use they are used by men when dancing, a man using one, two and sometimes three *das*, twirling them about his body and head, under his legs and rolling over them without cutting himself.

The games noted above are not common to all tracts, some are played in one, some in another, but Manpat is the only tract where tops and 'Do' are not played.

CHAPTER XXI.—Internal Administration.

For many years prior to the British arrival, each clan had its own *kin* or clan chieftain. Sailen and Humai as noted above in Chapter III, split into two and, though of the same clan, had separate *kins*. The appointment of *kin* was hereditary, the descent usually going to the eldest surviving male relative, the choice being settled at a meeting of the elders of the tract. Besides the *kin* or *Pu-kang* there were other officers, such as the—

Pu-che, or village headman.

Pu-hpawng, headman of the village where the *kin* resided and in Manton also where a *pubak* lived.

Pubak, headman of his own village and having jurisdiction over the *pu-ches* of certain other villages in his circle. The circle was usually the limits of a sub-clan. Sometimes there were no subordinate villages.

Pu-chari, or clerk to the *kin* or *pu-che*.

Paw-möng, headman over one village like the *pu-che* or over a group of villages as the *pu-bak*.

Pu-uh, *Puchiyang* or *Teng-saw*, the village crier.

In certain villages owing to the great local influence obtained, the office of *pak*, *paw-mong* and even *puche*, like that of *kin*, became hereditary, but generally on the death of one of these officers, a successor was elected by the villagers, the choice being confirmed, as a matter of fact, by the *kin*, to whom it had to be notified and a small present made. The succession to a kinship was similarly notified to the *Sawbwa* of Momeik. In a few villages there was a *pu-haung* in addition to the *pu-che* and in those cases he was subordinate to the *pu-che*.

The *pu-ches* collected the revenue and paid it to the *pu-hpawng* of the *kin's* village, who made it over to the *kin* and the *kin* accompanied by the *pu-hawng* and a few *pu-ches* took it to Momeik and paid it to the *Sawbwa* to whom every clan was in allegiance.

At times officers from Momeik came up and received it. The amount paid annually by Sailen (with Sauram) was Rs. 500, by Humai (with Pankha) Rs. 1,000 and by Maingkwin Rs. 500; the *kins*, however, collected at the rate of Rs. 5 per house and shared whatever

excess there was between themselves and the other officers, all of whom were exempt from taxation. The collection was made twice a year, Rs. 2-8-0 being taken in the 6th Shan month and Rs. 2-8-0 in the 12th Shan month. In Manmawk Rs. 10 was collected per house and 10 per cent. taken by the *kin*.

In Manton the rate is said to have been anything between Rs. 8 and Rs. 15 per house, and in the other tracts Rs. 5 per house as in Humai. The *kin* either took 10 per cent. and paid the rest into Momeik or bargained with the *Sawbwa* to accept a lump sum.

The *pu-che* decided all civil and criminal cases of a petty nature, other cases going to the *kin* who had plenary powers to deal with all matters. If a defendant did not pay he was put in stocks till he or his relatives did so and, failing this, he was either released or the *kin* could order him to be killed. As crime was rare there was not much call for the exercise of powers. In civil cases the *kin* or *pu-che* would take a few rupees as their fee.

Nowadays the *kin* collects Rs. 10 per house and pays it into the court of the civil officer who also tries all criminal cases and such civil matters as are reported to him. The *kins* or *pu-ches* mostly settle these and very few cases indeed are reported.

The tax, though a house-tax, was (and is) not collected at so much a house in all tracts; for example, in Manpun, the total amount being made up, a ratable distribution is calculated, every male and female between the ages of 15 and 60 bearing an equal share. In other tracts those with means usually assist the more unfortunate brethren.

In the western tracts, and wherever Kachins had secured a foothold, the Palaungs had to buy them off annually by a small payment in money or kind, otherwise all sorts of false charges would be pressed and compensation demanded. Even after submitting to black-mail the Palaung was not happy and if there is one part in the British possessions which welcomed and appreciates the presence of the British it is the Palaung area in the Kodaung. The Momeik *Sawbwa* took what he could get, but extended no protection whatever against the rapacious Kachins.

Genealogical Trees of the various *Kins* so far as is known or can be remembered.

Sailen.

(1) Kyu Möng Seng.

A number of *kins* whose names are unknown.

(2) Haw-Mun who divided from Humai. Some more *kins* (names unknown).

(3) Mun Sun.

(4) Haw Yawt. — (7) Haw Kwang.

(5) Hkun Seng. — *Nil.*

(6) Haw Hoöng. — (8) Haw Mun, present *kin*. | Haw Kwang. | La Luk.

The figures show the serial order, Haw Mun (8) being the present *kin*.

Humai.

Kyu Möng Seng.

A number of *kins* whose names are unknown.

Haw Sai.

More *kins* (names unknown).

Haw Pu.

Haw Hoöng. — *Nil.*

Haw Kwang.

Haw Süng, 1845—82.

First wife: Haw Sai, 1898—1904. | Haw Hoöng, 1895—1898.

Second wife: Naw Hung, 1882—1898. | Hkam Yawt, 1904—1912, present *kin*.

Maingkwin.

1. Loi Lawt,
2. Seng Kaw.
3. Lai Zing.
4. Haw Sawng.

Haw Seng. — 6. Hkun Sang. — 7. Kang Ma Ha Yadana. — 9. Ma Ha Kin or Hkun Yi, present *kin*.

Haw Mwan. — 5. Haw Yawt.

Hkan Hkun Möng. — Hkam Tan Möng. — 8. Hkun Htak. | Hkun Law.

Numerals indicate order of succession.

Manmawk.

1. Nang Chang.
2. Nang Ki.
3. Nang Ka.
4. Haw Hoong.

5. Haw San, died 1821.

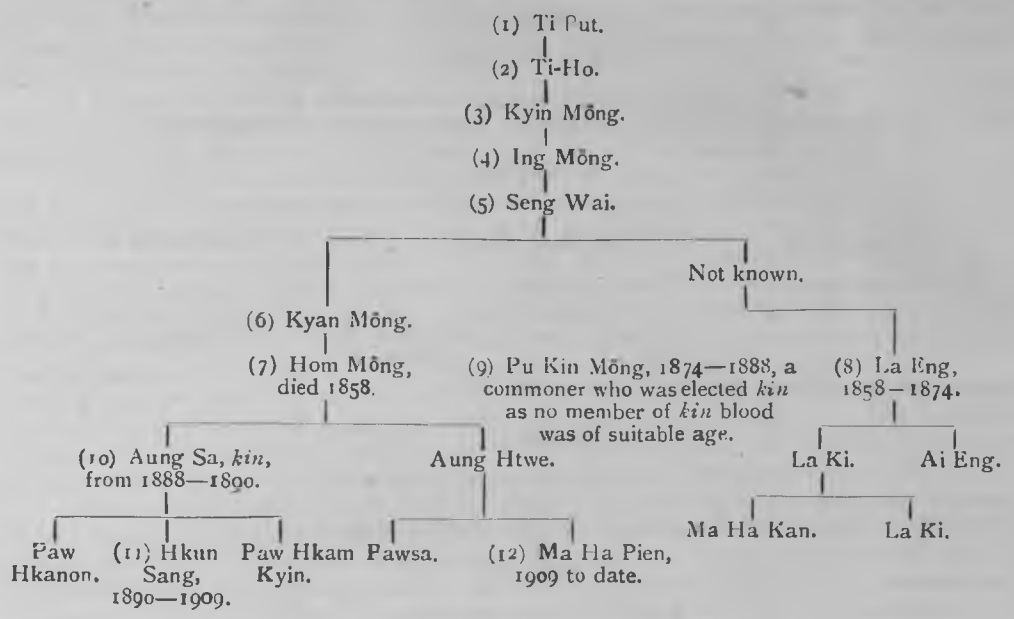
6. Haw Mun Sang. — 7. Haw Kwang, 1874—1892, died 1900. | 8. Haw San, 1892—1900, died 1910.

Haw Sing. — Haw Hung. — 10. Hkam Yawt, 1908 to date.

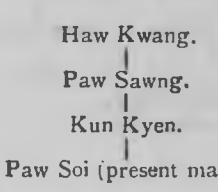
9. Haw Sing, 1900—1908. | Haw Yawt. | Hang Man. | Hkam Kwan. | Naw Hkam.

The 7th and 8th Kudun *kins* (there were a large number before). Haw Kwang and Haw San resigned owing to old age.

Manton.—A large number of *kins* of whom the first to be remembered is—

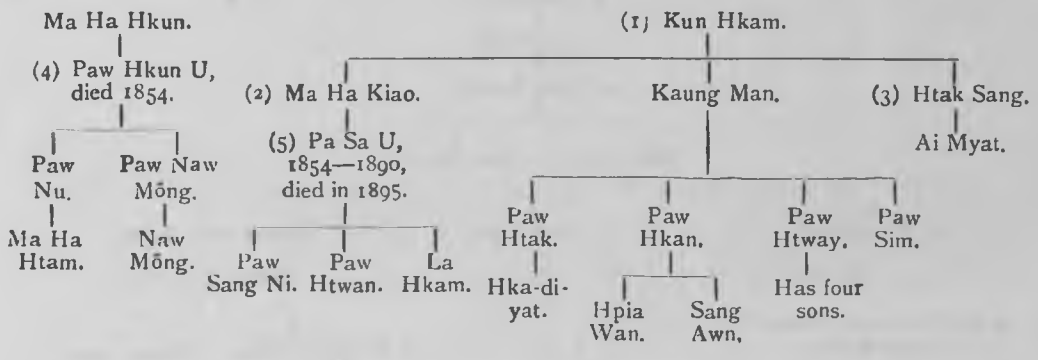


Manpat.—The present *kin* is Paw Soi, son of Kum Kyen. He seems utterly unable to say who were *kins* before him, but the four last *kins* seem to have been—

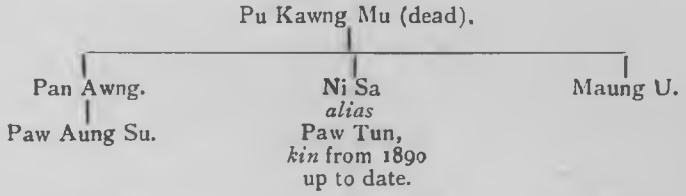


Manlon.—The present *kin* is Paw Ri, son of Htun Gyaw, but I have not yet obtained information to write up a genealogical tree.

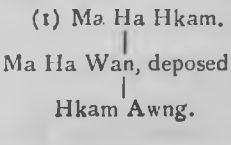
Manpun.—Many unknown names. Then came two brothers known as Kun Hkam and Ma Ha Hkun.



The 5th *kin*, Paw Sa U, was removed in 1890 and it was then ruled that no member of the *kin* stock should be reappointed. A commoner named Ni Sa was then appointed. His relatives as far as is known are—



Yabon.—The present representative of the *kin* stock is Hkam Awng, son of Ma Ha Wan, the last *kin* who was turned out about 1895, when the *pubak*, Shwe Pan, was put in charge temporarily, but has continued in office since then. On his death Hkam Awng will be appointed *kin* Hkam Awng's genealogy is as follows—



Ma Ha Hkam was the first to be appointed *kin*; before that he was a *pubak* only and this tract used to be under a *pubak*.

CHAPTER XXII.—NATS AND DEITIES.

That *nats* and also the offerings made to them in the different tracts vary a great deal, and each tract will be separately noted on. Common to all tracts is the house *nat*. In every house, in a corner or against a wall, will be found a few dry flowers, where this *nat* abides. In cases of illness he is propitiated with small offerings of flowers and parched or broiled rice. The welfare of the individual house is his especial domain. Then there are the more important *nats* outside.

Humai.—Two *nats* only are worshipped, Să-mŏng and Bo, the latter being the servant of the former. Separate shrines are made to each, but a common roof covers them, the shrine of Bo being in a slightly lower level. They represent the spirits of the *Sawbwa* of Momeik and of his generals respectively.

Years ago, it is said, there was some internal strife at Momeik and the *Sawbwa*, being driven from there, arrived by the main road at Manna and pitched his camp there. He went for a visit to Monhkat leaving his *Amat* behind. When the *Amat* thought it was about time for the *Sawbwa* to return he despatched messengers to go and meet him and accompany him back, but in doing so a slip of the tongue caused him to use the word 'owma' which means 'bring' instead of 'hapma' meaning 'to accompany'. The stupid messengers opining the minister had some sinister design in using the word 'owma' instead of 'hapma' and not daring to question him met the *Sawbwa* with two of his generals on their way back near the Nam Hpe stream and forthwith massacred them there, and brought the *Sawbwa's* head to the *Amat* at Manna. The expression (Nawri-hpye) in Shan is synonymous of death, and from it the stream which is now called Nam Hpe derived its name. The spirits of the *Sawbwa* and his two *bos* or generals turned into evil *nats* and have since demanded propitiation. They made their presence and intentions known through certain old women, known in Burmese as 'nat-kadaws.'

The principal Să-mŏng *nat* shrine is at Na-aw village and there, on a selected day in the third Shan month when the *taungyas* are being cut, a great meeting takes place, every village in Humai and Pankha tract being represented. The 'Htan-mŏng' *nat-saya* goes through a ritualized ceremony, offers food-drink and flowers, and the coming crops are commended to his care. Following this, local offerings, on a smaller scale, are made at the Să-mŏng shrine in every village. The Htan-mŏng also offers a yard piece of white calico at the Na-aw shrine. After the offering, this cloth is taken to Man-Kan, the seat of the *kin*, and ceremoniously presented to the *kin* by elders. The *kin* takes the cloth and six months later, in the ninth Shan month, he presents it with an offering at the Nam Hpe shrine near the spot that the massacre took place.

Besides food, money offerings are made, but the money is always returned to the owners. The Htan-mŏng is at liberty to appropriate food offerings after the ceremony. In cases of illness or calamity, individual or collective, further offerings are made at this shrine.

At the beginning, middle and close of lent, offerings are made at the shrine and the Să-mŏng *nat* must always be informed when any other festival is to take place, and asked to extend his benevolent care. Whenever Să-mŏng is given an offering Bo also gets a share.

The *nat* shrines are repaired once a year, just before the offering in the third Shan month, males only assisting in this work.

Hpoongyis venerate the *nats* and make offering through the Htan-mŏng in case of illness.

When the annual gathering takes place at Na-aw in the third Shan month, a buffalo, cow or bull is shown to Să-mŏng by the Htan-mŏng. This buffalo—or a substitute in case it dies—is offered to Să-mŏng in the ninth Shan month at Mankan. The Htan-mŏng has then to summon the Na-aw *nat* to Mankan, and then the animal is taken to the jungle and slaughtered while standing, the neck being severed by chopping on the top or an upward cut or cuts given from the bottom.

The flesh is eaten by all those assembled. It is never offered at the *nat* shrine. Eight dry fishes, some rice, cakes, 20 ticals of silver, and four plates of curry and rice constitute the offering at the shrine. The silver, as before, is returned to the owners, the Htan-mŏng appropriating the food offerings.

Maingkwin.—The *nats* are—

(1) Hpi-hpa: lightning.
(2) Hpi-San-Hup: the same as the U-di-bwa *nat* of the Burmese.
(3) Hpi-Hkun-haw-Hkam: the spirit of the King of Burma.
(4) Hpi San hpa: the spirit of the *Sawbwa* of Momeik.
(5) Hpi-pu-kang: the spirit of the *kin* of Maingkwin.

The whole five are to be found at Chekan, all other villages have Nos. 4 and 5 only and their shrines are always within the village. Nos. 1, 2 and 3 are outside of it, in separate places.

An annual gathering takes place at Chekan from the 9th to 13th *lazan* of *Tabodwè*, when the shrines are repaired and offerings made. The offerings are as follow:—

—	To No. 1, Nat of Lightning.	To No. 2, U-di-bwa Nat.	To No. 3, Nat of King.	To No. 4, Nat of Sawbwa.	To No. 5, Nat of Kin.
Plates of rice	4	4	4	4	6
Plates of curry	4	4	4	4	6
Fishes	4	4	4	4	6
Packets of wet tea	4	4	4	4	6
Silver bracelets	4	4	4	4	6
Paper ornaments	4	4	4	4	6
Plates of rice and fish mixed ...	4	...	4	...	...
Paper flags	4	...	4	...	...
Wooden guns	2	2	...	...	...
Wooden elephants	1	1	...	...	...
Wooden horses	1	1	...	...	...
Wooden dahs	2	2	...	...	...
Chains of fine bamboo ('huyi') ..	5 fathoms.	20 fathoms.	...	...	...

Nos. 4 and 5, *i.e.*, the *nats* of the *Sawbwa* and *kin*, are collectively spoken of as the Să-möng *nat*. The bracelets are returned to the owners. The other offerings may be taken by the *nat-sayas*. There are three *nat-sayas* (htan-möngs) at Chekan. No sooner the Chekan offering is complete all the other village repair their *nat* shrines and make small offerings, and then again in the waning of *Tabodwè*, a second general gathering takes place at Chekan, an offering similar to the previous one is made and the crops commended to the care of the *nats*.

As in Humai the *nats* are also informed of all feasts and festivals.

Hpoongyis do not make offerings in Maingkwin, but countenance that being done by the laity. They however, at the end of lent, invite the *nats* to share the merits accumulated by the vigours of fast.

Manmawk.—There are three *nats*, *viz.*, Să-möng, Hkunlu and Nau Sŏ.

The two latter only at the *kin's* village, Manmawk. All are masculine in gender. Să-möng is pre-eminently the *nat* of the land, but the other two appear to have equal jurisdiction and are similarly venerated. Each has a separate shrine in the jungle.

The Să-möng *nat* is propitiated during the three lental festivals, *i.e.*, at the opening, middle and close of lent. He is also informed before any other feast is held and a small offering made.

Once a year in the third Shan month, when the *taungyas* are cut, Nau Sŏ is propitiated, his blessing is asked on the crops and he is requested to prevent accidents. A few elderly men from the different villages accompany the Htan-möng to the shrine when the offering is made.

Hkunlu is likewise propitiated in the seventh Shan month and also whenever illness and calamity to man or beast befalls, the Htan-möng, in consultation with the elders, deciding, when this is necessary. When the shrines are repaired the whole village, men and women join in the work.

Manton.—Besides the house *nat* there are—

(1) Hsŏ Möng Löng—the big tiger of the land.
(2) Haw-hpi-hpa—lightning.
(3) Siri Möng—the village *nat*.

No. 1 is probably the same as the Să-möng of other tracts. Every village has a shrine for Siri Möng, but Nos. 1 and 2 have a single shrine only: the former near Umang village, the latter on the north side of Manton.

The gender of Siri Möng is not known, but Hsŏ Möng Löng and Haw-hpi-hpa are masculine.

Hsŏ Möng Löng is given offerings four times a year: firstly in the first or second Shan months when the *taungyas* are being cut and are commended to him, then in the seventh Shan month when the growing crops need his benevolence and at the beginning and end of lent. Every village in the tract is represented at these four offerings, at the first of which the shrine is repaired.

The offerings consist of raw rice, one viss of *ngapi* and ten packets of (*a*) wet tea, (*b*) flowers, (*c*) parched rice, (*d*) white paper flags, ten bamboos containing water and ten "Ko-kas."

After the offering the rice and *ngapi* are cooked and eaten by all. In the fifth Shan month the shrine of Haw-hpi-hpa is repaired by the whole tract and an offering similar to that made at Hsŏ Möng Löng is made. A miniature wooden bedstead, also a wooden horse and wooden elephant are at the same time offered for the *nat's* use, his blessing is asked on the budding crops and health and prosperity prayed for.

A few days before the offering to Haw-hpi-hpa every village makes its offering to Siri Möng and repairs the shrine. The shrine in this as in most other cases resembles a Burmese "Ye-o-zin" made of four wooden posts, a bamboo flooring and thatch roof with the two sides and back walled up and sometimes also the front where a small doorway is made. A bamboo fence surrounds the structure which is seldom more than 8 feet high.

The offering to Siri Möng is the same as that to the other two *nats* except that ten small packets of *ngapi* are offered instead of a viss packet and this *ngapi* is not afterwards eaten. The office of this *nat* is to keep a close watch on the well-being of the village. In case of much illness or dire calamity further collective offerings may be made to Hsö Möng Löng and Haw-hpi-hpa and offerings either by whole village or individuals to Siri Möng.

In this tract the house *nat* is supposed to be an old man and an old woman, his wife. A small shrine is made either within or without the house for occasional offerings.

There is also no recognized htan-möng or *Natsaya*, any old man who knows the necessary ritual being eligible to perform the ceremonies.

Manpat.—There are only two *nat* shrines in this tract, both being near Manpat village. The only htan-möng lives in Dawmaw with the *kin*. The residents of the shrines are known as the upper and lower *nats* (Hpi Nö Hpi Tan), and they look after the country generally. They are propitiated together in the waxing moon of the seventh Shan month when the whole tract joins in the festival. It lasts a single day only. The htan-möng offers at each shrine

four packets of curry,
two packets of *ngapi*,
two packets of rice,
two packets of flowers (coxcombs usually),
Two white paper flags,
Two candles,
One goglet of water,
Two lumps of wet tea,
Two lumps of tobacco,

after the shrines have been repaired.

At other times special offerings may be made individually, but the htan-möng must officiate at the ceremony. Such offerings are suggested by the *hpoongyi* after looking at the "zada" of the person in whose behalf the offering is to be made and consulting his "kyansa," but the *hpoongyis* do not themselves make offerings.

Manlon.—There are five *nats* known as—

(1) Hpahom—the *nat* who is the greatest and watches over the borders of Manlon tract.
(2) Pu-hpa-löng—the *nat* of the *Sawbwa* of Momeik.
(3) Sä-möng—the pupil or 'tabyi' of Pu-hpa-long.
(4) Löng-Kam—the *nat* of the forest who should look after the cattle and prevent their destruction by wild animals.
(5) Ye-hkan—the *nat* of the granary who should see that full granaries are obtained.

Sä-möng has a shrine in every village, but the other four have a single shrine only, Nos. 1 and 2 being near Manlon, the *kin's* village, while Nos. 3 and 4, close to one another, are on the main road between Manlon and Maw-noi.

All the *nat* shrines are repaired on a Monday in the month of *Nayon*, and in the month of *Pyatho* during the waxing moon and on a Monday a great assemblage takes place at Manlon when offerings are made to all the *nats* commencing with Hpa-hom. In both cases a Monday is selected as it is the tiger's day, the Shan letter or (ka) being the first prominent letter in the word Kämaw by which the tract is also known. (It is now usually written Gammaw). The Burmese system, which I presume is well known, is followed wherein certain days of the week belong to certain animals or birds and each day appropriated to certain letters of the alphabet. The table is as follows :—

Day of week.	Bird or animal to which consigned.	Letters of Shan alphabet pertaining.
Monday ...	... Tiger	ဂ, ၁, ၆
Tuesday ...	... Lion	လ-သ-ည,
Wednesday ...	... Up to noon—elephant ... Afternoon —Haing or tuskless elephant.	ယ, ရ, လ, ဝ
Thursday ...	... Rat	ဖ, ဟ, မ
Friday ...	... Mole	ဟ
Saturday ...	... Naga	တ, ထ, ၼ်
Sunday ...	... Kälon	က and the other vowels.

On the day of the offering the villagers collect at the shrine of Hpahom and then visit Sä-möng, Pu-hpa-long, Long-kam and Ye-hkan in serial order and make an offering of two bamboos containing wet tea, one bamboo filled with rice, one with curry, some paper ornaments and flowers at each. A goglet of water is placed and a small "tagun" planted at each.

Hpa-hom is asked by the htan-möng to see to the general good of the tract. A request for special protection is made to Pu-hpa-löng and Sä-möng. Longkam is beseeched on behalf of the cattle and asked to protect them against tigers and Yehkan is prayed to send timely rain and look kindly on the crops.

Before this gathering a general collection of a packet of dry tea and a cubit of cloth is made from each house and given to the 'nat-saya' to buy rice with. He buys the rice and divides it among the villagers to cook on the day of festival and out of this the assemblage

is fed, a very small proportion being taken for the offerings to the *nats*. Neither the *nat-saya* nor anybody else eats food offered to the *nats*.

When this central offering is concluded the villagers disperse and shortly after similar offerings are made at the shrine of Să-mŏng in the other villages. Each village has its own *nat-saya*.

The *nats* are informed of all other festivals, the *nat-saya* offering up a little rice and then throwing it away.

Should tigers trouble the cattle Long-kam is again propitiated.

Manpun—The *nats* are :—

1. Hpătăn Ngau-mŏng.
2. Fa-tă-ra.
3. Chan Ai.
4. Fa-hom.
5. Sük-long.
6. Hpi-mŏng or Samŏng.
7. Mărit.

In the waning of Tabodwè when the *taungyas* are about to be cut the *hpoongyi* selects a day and all the villagers in this tract (except Prangsin) collect at Htakchet and repair the shrines of the first five *nats* and next day an offering is made at each of them consisting of—

1 Goglet of water.
1 Small screen (kalaga).
1 Bunch of plantains.
3 Paper flags.
3 "Kok-kas."
3 Small paper umbrellas.
3 Balls of rice and curry mixed.
3 Small baskets of sand.
3 Buckets (or bamboos) of water.
3 Small packets of tobaccos.
3 Small bunches of flowers.
1 White "tagun."
6 Small pieces of dry fish.

The htan-mŏng calls a prayer and blessing on each and they are besought to look after the general welfare. The shrines of all the above are apart from one another and are all after the "Ye-o-zin" type. Individual offerings can also be made—the htan-mŏng in each case performs the invocation.

The shrines of Nos. 6 and 7 are different, being made of four long posts, with a bamboo or plank platform about 6 feet square 7 or 8 feet off the ground, and no roof. The four posts of No. 7 are about 12 feet high, a thin bamboo being bent in an arc to connect them diagonally. Under the platform there is a post about 6 feet high surrounded by a bamboo gabion filled with loose sand and gravel. A steep ladder leads up to the platform and the shrine is encompassed with a square bamboo fence having one small gate for entry.

The shrine of No. 6 has the two back posts a little longer than the two in front and they are not connected by diagonal bamboo arcs. A rough bird's-eye sketch of No. 7 is under (Fig. 37.)

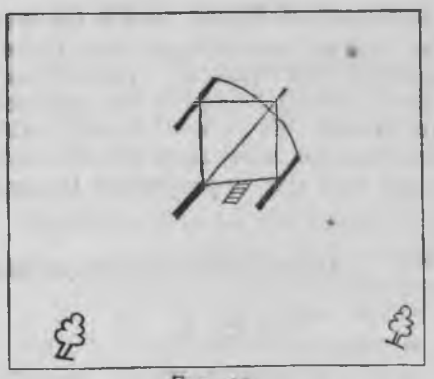


Fig. 37.

At New Year the shrine and fence of Hpi-mŏng or Să-mŏng is repaired and an offering of rice and curry, water, flowers and flags is made by the entire tract. These offerings are not handed by the htan-mŏng but by an officer called the Pan tâga tha tha na zaw. A *hpoongyi* mounts the platform and delivers an address.

The offering and ceremony at the shrine of Marit is the same as above, but there is no regular or annual date for it. When illness or wild animals trouble he is thought of and appeased, otherwise no notice is taken of him. These are the only two *nats* in whose ceremony a *hpoongyi* takes an actual part.

In this tract the house *nat* is, besides occasional offerings, offered to regularly five times a year, *viz.*, at New Year, again in the third Shan month on account of the new *taungyas* and at the three lental feasts.

Prangsin village in this tract does not come to Htakchet, but has two *nats* of its own known as—

San-Sang-Upük, the white elephant,
San-paü-man, the village guardian *nat*,

but I know nothing more of these.

Yabon.—In this tract there are six *nats*, one, a male, having its shrine near the village known as Ga-nawn-gung-ganawu-maran (or, in Shan, Hpi-mŏng hpi-man), the *nat* of the country and village and the other five are in the jungle. Of these one is dedicated to each cardinal point—North, South, East and West—and the last is *nat* of the Shwe-le-wa, a very ancient pagoda at Htakchet (Manpun) and faces that pagoda. The *nats* are invoked by the *nat-saya* and there are four annual offerings. The offerings consist of dry or salted fish, cooked rice, plantain, tea, tobacco and flowers.

Occasional offerings are also made when calamity befalls men or beasts, the *hpoongyi* deciding when such offerings are necessary after consulting his 'Kyan-sa.'

The practise of placing pebbles in open work bamboo cylinders and hanging these over the entrance doors of a house to keep out evil spirits is common to all tracts. These small pebbles are taken from the enclosure of a nat-shrine.

The office of *htan-möng* or *nat-saya* is not hereditary and is made by selection of a suitable candidate, always an old man, who knows the necessary ritual. For illustration I give the method prevailing in Manlon. On the death of the *htan-möng* a general meeting is made and an elder selected as successor. This gentleman then calls aloud to the ***nats*** and asks them to notify their approval or disapproval of the choice by means of a dream. Should he see white clothes in his dream the ***nats*** are pleased, if black or red, they do not favour the choice and another meeting and selection have to be made. On this psychological night he must sleep in a clean place and avoid sexual intercourse. In the morning he tells the ***kin*** of his dream and the *kin* informs the others. A man dare not resort to falsehood. Having no dream or seeing no clothes does not count. He must go on dreaming till he sees white or black or red clothes.

CHAPTER XXIII.—OMENS.

These differ in the different tracts.

Humai.—A *gyi* or sambhur running directly across one's path is a bad sign and most people would hesitate to proceed. If the crossing were made at an angle the portent would be far less evil and one would not turn back. Seeing a snake is a good sign. Snakes are not killed unless they exhibit enmity.

A branch falling is not good. If it falls in front of one the direction of the evil is indicated and one must not proceed; if at the right side of one it refers to one's near relatives, if on the left to distant relatives and if at the back to one's self. In all cases it is considered an evil sign.

Hair twirls in ponies—so minutely looked for by Burmese—are not considered.

Maingkwin.—As Humai and in addition the urine or excreta of *gyi's*, sambhur and human beings or the last named when easing themselves if seen in one's path are unfavourable omens.

Manmawk.—If a deer or snake crosses one's path from left to right it is a bad sign; if in the other direction it is very fortunate and is called 'Going into the bag' as the haversack hangs on the left side from the right shoulder. The breaking and falling of a branch from a tree is always a bad sign.

In Manlon when wandering in the jungle should a single egg of a wild fowl be seen it is very bad luck and the egg is immediately destroyed. If more than one it does not matter and the eggs are then taken away and eaten. Also the falling of trees or branches is thus interpreted; if before one a near relative is about to die; if at the back a distant relative and if on the sides a co-villager will die. The other omens are construed as in Manmawk.

The remaining tracts agree with Humai. Everywhere some credence is attached to dreams. In Manlon tract dreams of courting girls or catching fish are lucky signs, but if red or black colours appear it is always an unfavourable sign. Likewise dreams of riding, silver and gold are bad and give headaches.

CHAPTER XXIV.—MISCELLANEOUS.

(*a*) *Calendar*.—The Burmese calendar is followed and months and days are known by their Shan names, but the year has the number in the cycle of 60 mentioned above. The shape of the earth is considered flat. It is thought and believed that the sun is in a box. When the box is open it is day, when closed it is night. Morning and evening are different aspects of the open box; who opens and closes the box has not been thought of.

(*b*) *Totemism*.—There is no trace of this or of castes or tribal marks except that of the skirt worn by women.

(*c*) *Magic and witch craft* are practically unknown. A wizard that used to live in Htakchet (Manpun)has shifted into the Ngadaung hill-tracts of Momeik. Belief in the 'evil eye' is prevalent and Maingthas are feared.

(*d*) *Weights and Measures*.—The two-tray scales, with fulcrum in the centre is used; also the single tray scale with fulcrum at one end of the bar. (Fig. 38.)

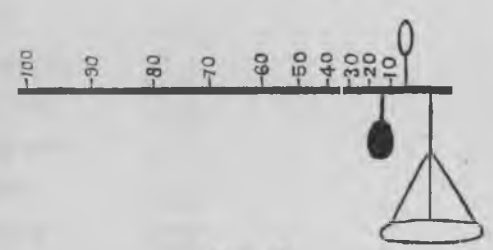


FIG. 38.

The latter is unsatisfactory and the smallest weight that can be measured with it is 10 ticals. Everywhere the viss is used, 100 ticals being equal to one viss, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2, 5, 10 and 20 tical weights, made in the shape of the Burmese lion (chinthe) or the shell drake (hintha) are bought at Namkhan or sold by traders. When no weights are handy money is used. Seven rupees being used instead of a 5 tical weight, and other weights in proportion. The Burmese *pyi*, 4 *pyi* or *hkwet* and 16 *pyi* or tin baskets, are used for measurements of quantity, also an 8-*pyi* basket called a 'hpai' or 'hkwai.'

(*e*) *Carving, etc.*—There are no real carvers, painters or stone masons, and when work of this kind has to be done, as when building masonry pagodas, *zayat* and staircases are built, Burmese are usually engaged from Momeik. Formerly there used to be masons. The

Palaung carves rough figures of Buddha (standing and sitting) in wood and knows how to overlay this with gold leaf. He can also do mosaic work such as coffins for *hpoongyi*, *parabaiks* and pulpits, from which the *hpoongyi* delivers the annual addresses. Every *kyaung* is decorated with highly coloured scenes depicting Buddha's life and small glazed pictures of the Buddha, obtained from Mandalay, and numerous hollow gilt Buddhas both standing and sitting are obtained from Tabayin in Shwebo. These latter are brought round for sale by Burmans. There are also a few large marble images and a great number of small ones, chiefly with heads broken off, this vandalism being the work of the Kachins. Some of the old pagodas in Maingkwin, Manlon and other parts show that in years gone by the Palaung used to cast very ornamental figures of Buddha in bronze and copper, make bells of fair dimensions and smaller images also in baked terracotta.

(*f*) *War.*—As stated in his physical characteristics the Palaung is a timid person, and certainly no fighter. At the same time I do not think he is one whit inferior to the Burman in this respect, but there cannot be the least doubt he would never have been able to take his ground against the Kachin, who, if not checked by the British occupation, would certainly have overrun the Taungbaing and Hsenwi and driven the Palaungs before them.

(*g*) *Oaths.*—When put to it a Palaung swears by all the *nats*, calling on them to visit him with dire punishment.—that lightning may strike him, tigers eat him, drowning and illness overtake him, should he speak falsely.

(*h*) ***Slavery*** is unknown.

(*i*) *Morals.*—A Palaung may well be proud of his morals. Rape, adultery and almost all crime is practically non-existent. Fornication, though not unknown, is not common and very few women bear children out of wedlock. In this they differ greatly from the Kachins.

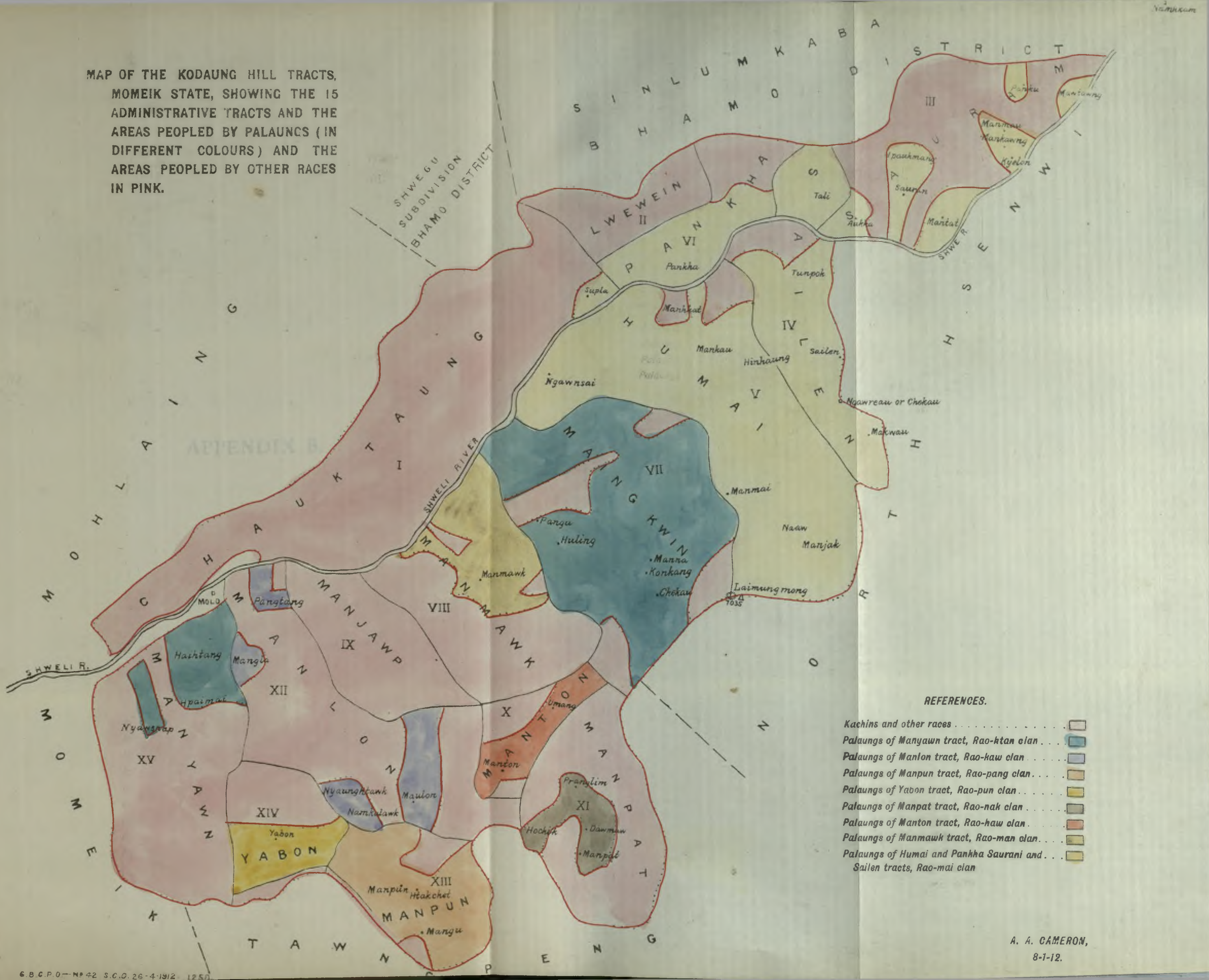
(*j*) *Traps.*—In addition to his gun and bow, wild animals, especially bears, are caught by the laying of traps. The bear trap consists of a noose fixed to a stake, usually near the *taungya*. Tigers and leopards are occasionally caught in long traps made by driving stakes in the ground joining them on top and laying a bait. This trap is common to the Burman and Kachin.

(*k*) *Matches.*—These are now everywhere used, and the flint as a means of starting a fire or lighting a pipe is nowhere seen. Japanese match-boxes sell at one and two pice per box.

(*l*) *Comparative Table of a few Words and Sentences in the various Dialects.*

—	Humai.	Maingkwin.	Manmawk.	Manton.	Manpat.	Manlon.	Manpun.	Yabon.
1. Village	Hkäjung	Ri-u	Re-a	Rao	Rao	Rai	Rao	Rao.
2. Sore	Se-u	Si-u	Se-a	Sao	Sao	Sai	Sao	Sao.
3. Peacock	Bya or Bra	Bra	Bra	Pra	Bra	Prè	Pra	Prak.
4. Jungle	Brai	Brè	Brè	Prai	Brai	Pre	Prai	Prai.
5. Hand	Tai	De-i	De	Tai	Dei	De	Tai	Dal.
6 Water	Em	Om	Om	Um	Um	Om	Um	Um.
7. To escape	De-u	De-u	De-a	Dao	Dao	Tai	Dao	Dao.
8. To eat food	Hawm pawm.	Hawm bawm	Ham bam	Hom pom	Hawm bawm.	Hawm bawm.	Hawm pawm.	Hawm pawm.

MAP OF THE KODAUNG HILL TRACTS, MOMEIK STATE, SHOWING THE 15 ADMINISTRATIVE TRACTS AND THE AREAS PEOPLED BY PALAUNGS (IN DIFFERENT COLOURS) AND THE AREAS PEOPLED BY OTHER RACES IN PINK.



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- Palaungs of Manlon tract, Rao-kaw clan
- Palaungs of Manpun tract, Rao-pang clan
- Palaungs of Yabon tract, Rao-pun clan
- Palaungs of Manpat tract, Rao-nak clan
- Palaungs of Manton tract, Rao-haw clan
- Palaungs of Manmawk tract, Rao-man clan
- Palaungs of Humai and Pankha Saurani and Sailen tracts, Rao-mai clan

A. A. CAMERON,
8-1-12.

G.B.C.P.O.—No 42 S.C.O. 26-4-1912 1250

APPENDIX B.

APPENDIX B.

Terms of Relationship.

In a discussion which I had with Mr. J. G. Frazer and Dr. W. H. R. Rivers shortly before leaving England, both gentlemen pointed out that very little information is at present available regarding Indian vernacular terms of relationship, and expressed the hope that it might be possible, with the aid of the Provincial Superintendents appointed for the coming Census, to fill in this gap in our knowledge. It is desired to know the names for the different relations, not only in the principal vernaculars, but also, and more especially, in the dialects spoken by the aboriginal tribes. Provincial Superintendents are therefore requested to endeavour to obtain the vernacular equivalents of the English terms contained in the annexed list in as many languages of the Province as possible. I would suggest that, as far as possible, missionaries working amongst aboriginal tribes be asked to furnish the names in use amongst those tribes. It is essential that the agency employed should be thoroughly reliable.

2. In addition to the mere names, it is desired to collect information regarding customs connected with kinship, such as the (so-called) levirate and the custom amongst certain castes whereby the maternal uncle arranges marriages. I append a note by Dr. Rivers, who drew up the enclosed list of terms of relationship. This might be circulated to the persons who are asked to undertake the proposed inquiry.

E. A. GAIT,
Census Commissioner for India.

Extract from a Letter from Dr. W. H. R. Rivers, F.R.S.

I enclose a list of terms of relationship in which I have underlined (italicized) those which I think are the most important. You will notice that the relationships in the second column are the reciprocals of those in the first, and are best obtained together by following up the question "What do you call X?" by the question "What does X call you?" or "What do you call your father?" and "What does your father call you?" The distinctions in the terms for brother and sister according to the age and the sex of the person using them, make a rather complicated business, but these distinctions certainly exist in India.

The relationships from "Father's brother" to "Mother's sister's child" are all important, and I hope you will be able to ask for them all. I have only underlined the more important of the reciprocal terms but should like to know them all. I do not anticipate that the distinctions between the four kinds of grandparent and the four kinds of grandchild would be found in India, but it would be well to ask for them on the chance of the distinction turning up somewhere. The same applies to the four kinds of parent-in-law, and here again I do not expect that you would find the wife's parents distinguished from the husband's. The eight kinds of the brother and sister-in-law relationship are all important. It is not often that the last three relationships have names, and one for the last is very rare, but I should be glad if you could include them. In many cases different terms are used when speaking to a relative and when speaking of a relative to a third person, and both forms might be obtained.

As regards customs connected with kinship, these might be divided into two classes: (1) duties or privileges falling to the lot of a certain kin and (2) restrictions on the conduct of certain kin. I don't know how far you would like to leave these open in order not to prejudice your inquirers, but I think it would be safe under the first head to ask particularly for any functions performed by certain kin in ceremonial, whether of birth, marriage, death, or of other kinds. In the second class attention might be drawn to restrictions on the use of the names of certain kin, and in this connection there might be questions directed to discover whether people are ever spoken of as the "father is X," "the husband of X," etc., in order to avoid these restrictions.

List of Terms of Relationship.

	Father	..	*Son.*
	Mother	...	*Daughter.*
	Elder brother (m.s.) ...	...	*Younger brother* (m.s.).
	Elder sister (w.s.) ...	...	*Younger sister* (w.s.).
Elder / *Younger*	*Sister* (m.s.) ...	...	*Brother* (w.s.) { *Elder.* / *Younger.*
	Father's brother ...	...	*Brother's child* (m.s.).
	Father's brother's wife...	...	*Husband's mother's child.*
	Father's brother's child.		
	Father's sister ...	...	*Brother's child* (m.s.).
	Father's sister's husband	...	Wife's brother's child.
	Father's sister's child.		
	Mother's brother ...	...	*Sister's child* (m.s.).
	Mother's brother's wife	...	Husband's sister's child.
	Mother's brother's child.		
	Mother's sister ...	...	*Sister's child* (w.s.).
	Mother's sister's husband	...	Wife's sister's child.
	Mother's sister's child.		
Grand-father.	Father's father ...	...	Son's son (m.s.).
	Father's mother ...	...	„ „ (w.s.). } *Grandchild.*
Grand-mother.	Mother's father ...	...	Daughter's son (m.s.).
	Mother's mother ...	...	„ „ (w.s.).
	Husband	...	Wife.
Father-in-law.	Wife's father ...	...	Daughter's husband (m.s.) } *Son-in-law.*
	Wife's mother ...	...	„ „ (w.s.)
Mother-in-law.	Husband's father ...	...	Son's wife (m.s.). { *Daughter-in-law.*
	Husband's mother ...	...	„ „ (w.s.).
	Wife's brother ...	...	*Sister's husband* (m.s.).
	Wife's sister ...	...	„ „ (w.s.).
	Husband's brother ...	...	*Brother's wife* (m.s.).
	Husband's sister ...	...	„ „ (w.s.).
	Wife's sister's husband.		
	Husband's brother's wife.		
	Son's wife's parents.		

(m.s.) = Man speaking. (w.s.) = Woman speaking.

APPENDIX B-I.

TERMS OF RELATIONSHIP IN THE DIALECTS SPOKEN IN THE KODAUNG HILL TRACTS OF THE RUBY MINES DISTRICT.

Relationship.	Shan.	Lishaw.	Kachin.	Maru.	Lashi.	Szi.	Maing Kwin Palaung.	Humai Palaung.
1(*a*) What does a father call his son.	Luk-sai	Ngaw-za	Ngai-sha	Nga-saw	Nga-zaw	Nga-zaw	Ū-kawn	Kawn-i-mai.
1(*b*) What does a son call his father.	Paw	Ba-bā	Wa	Nga-hpaw	Ă-hpu	Yi-wa	Ă-kūn	Kūn.
2(*a*) What does a mother call her daughter.	Luk-ying	Ai-mé	Ngai-sha wum-gāsha.	Nga-saw	Nga-zaw-myi-Ēzaw.	Nga-zaw	Ū-kawn	Kawn-ipan.
2(*b*) What does a daughter call her mother.	Myé	Ma-mā	Nū	Nga-myi	Ă-myi	Yi-nu	Ă-ma	Ma.
3(*a*) What does an elder brother call his younger brother.	Nawng-saw	Ă-myo	Ngai-nau	Nga-nau	Ă-naw	Nga-gu	Ū-wa	Va-imai.
3(*b*) What does a younger brother call his elder brother.	Pyi-sai	Kō-kō	Hpu	Nga-mu	Ă-mang	Yi-mang	Ū-byi	Pyi-mai.
4(*a*) What does an elder sister call her younger sister.	Nawng-ying	Ngaw-ni-ma	Ngai-nau	Nga-nau	Ă-naw	Nga-gu	Ū-wa	Va-ipan.
4(*b*) What does a younger sister call her elder sister.	Pyi-Saw	Chi-chi	Na	Nga-pai	Ă-be	Yi-na	Ū-byi	Pyi-i-pan.
5(*a*) What does an elder sister call her younger brother.	Nawng-Sai	Ă-byi-thaw	Ngai-nau	Maung	Ă-mung	Nga-gu	Ū-wa	Va-i-mai.
5(*b*) What does a younger brother call his elder sister.	Pyi-Saw	Same as 4(*b*)	Na	Ă-bai	Ă-be	Yi-na	Ū-byi	Pyi-i-pan.
5(*c*) What does a younger sister call her elder brother.	Pyi-Sai	Kō-kō	Hpu	Nga-mu	Ă-mang	Yi-mang	Ū-byi	Pyi-i-mai.
5(*d*) What does an elder brother call his younger sister.	Nawng-ying or Nawng-sau.	Nyi-man	Ngai-nau	Nga-nau	Nam-maw	Nga-gu	Ū-wa	Va-i-pan.
6(*a*) What does a man call his (elder or younger) brother's son.	Lau-sai	Ngaw-za	Ngai-sha	Nga-saw	Ngă-zaw	Nga-zaw (children) of younger brother) Yi-zaw (children of elder brother).	Ū-kawn	Kawn-i-mai.
6(*b*) What does a boy call his father's —								
(1) Elder brother	1 Taw-nung	O-hpa	Wa-di	Hpa-maw	Hpă-mu	Hpa-mo	Kun-an	Kun-dang.
(2) Younger brother	2 Taw-au	Ū-wo	Wa-toi	Hpa-let	Hpă-htang	Hpa-htang	Kun-det	Kun-det.
6(*c*) What does a man call his (elder or younger) brother's daughter.	Lau-ying	Ngaw-myi	Ngai-sha	Nga-saw	Nga-zaw	Nga-zaw	Ū-kawn	Kawn-i-pan.
6(*d*) What does a girl call her father's—								
(1) Elder brother	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*)	Same as 6(*b*).
(2) Younger brother								
7(*a*) What does A's brother's wife call A's child.	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*)	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*).	Same as 6(*a*) and 6(*c*).
7(*b*) What does A's child call—								
(1) A's elder brother's wife	1 Pa	O-ma	Nu-tung	Nga-maw	Nyi-mu	Mi-maw	Ma-an	Ma-dang.
(2) A's younger brother's wife	2 Myé-lo	Zu-zaw	Nu-toi	Nga-let	Nyi-htang	Mi-htang	Ma-det	Ma-det.
8 What does A call his father's brother's—								
(1) Son who is older than A.	1 Pyi-sai	Kō-kō	Hpu	Nga-mu	Ă-mang	Yi-mang	Byi	Pyi-i-mai.
(2) Son who is younger than A.	2 Nawng-sai	Ngaw-mye-tha	Nau	Nga-nau	Ă-naw	Nga-gu	Wa	Va-i-mai.
(3) Daughter who is older than A.	3 Pyi-sau	Chi-chi	Na	Ngă-pai	Ă-be	Yi-na	Byi-i-bau	Pyi-i-pau.
(4) Daughter who is younger than A.	4 Nawng-sau or Nawng-ying.	Ă-mye-tha	Nau	Nga-nau	Nam-maw	Nga-gu	Wa-i-bau	Va-i-pau.
9(*a*) What does A's (elder or younger) sister call A's daughter.	Ngaw-myi	Ngaw-sa-ma	Ngai-nam	Nga-tau	Nga-tu	Nga-du	Kawn	Pi.
9(*b*) What does A's daughter call—								
(1) A's elder sister	1 Pa	Nye-nya	Moi	Ngă-na	Ning-mu	Yi-moi	Kan	Kan.
(2) A's younger sister	2 Myè-a or Mye-an.	Nye-nya	Moi	Nga-na	Ning-htang	Yi-moi	Kan	Kan.
10(*a*) What does A's sister's husband call A's—								
(1) Son	1 Lau-sai	Ngaw-za-yă	Ngai-nam	Naung-saw	Tu-maw	Nga-du	Kawn	1 Kawn. 2 Pi.
(2) Daughter	2 Lau-ying	Ngaw-za-ma						
10(*b*) What does A's son or daughter call A's—								
(1) Elder sister's husband	1 Nung	Vé-Ū	Gu	Nga-vun	1 Vang-mau 2 Vang-htang	Yi-gu	1 Bè-u-dang 2 Bè-u-det	Bè-u-dang. Bè-u-det.
(2) Younger sister's husband	2 Akhoi or Au-Khoi.	Vé-Ū						
11 What does A call his father's sister's—								
(1) Son older than A.	Same as 8	1 2 Kwaw-sū	Hkan	Nga-hkan	Khon	Hkon	Same as 8	Same as 8.
(2) Son younger than A.								
(3) Daughter older than A.		3 4 Kwaw-ma	Ngai-hkri	Nga-uk	Sān-ok	Ning		
12(*a*) What does B's brother call B's—								
(1) Son	1 Law-sai	1 Ngaw-sa-zā	Ngai-hkri	Nga-tan	Saw-ok	Sa-ou	Kawn	1 Lau-i-mai. 2 Lau-i-pan.
(2) Daughter	2 Law-ying	2 Nga-sa-ina						
12(*b*) What does B's child call B's—								
(1) Elder brother	1 Paw-nung	Vu-vè-u	Sa	Ngai-ni	Yuk-hpaw	Yi-sa	1 Bè-ū-dang 2 Bè-ū-det	Bè-ū-dang Bè-ū-det.
(2) Younger brother	2 Paw-au							
13(*a*) What does B's brother's wife call B's—	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*)	Same as 12(*a*).
(1) Son								
(2) Daughter								
13(*b*) What does B's child call B's—								
(1) Elder brother's wife	1 Mye-pa	Ă-nyi-Eh	Nyi	Nga-uk	Yuk-nu	On-maw	1 Kan-dang 2 Kan-det	Kan-dang. Kan-det.
(2) Younger brother's wife	2 Mye-a or Mye-au.							
14 What does A call his mother's—								
(1) Elder or younger brother's son if latter older than A.	Same as 8	1 2 Kwa-saw	1 2 Hkau	Nga-hkaw	Hkon	1 Yi-mang 2 Nga-gu 3 Yi-na 4 Nga-gu	Same as 8	1 2 Pi. 3 4 Pi-ū.
(2) Elder or younger brother's son if latter younger than A.		3 4 Kwa sa-ma	3 4 Rat Ngai-nam.	Nga-ni	2 Bè 4 Nawng-zaw			
(3) Elder or younger brother's daughter if older than A.								
(4) Elder or younger brother's daughter if younger than A.								

APPENDIX B-I—*concluded.*

TERMS OF RELATIONSHIP IN THE DIALECTS SPOKEN IN THE KODAUNG HILL TRACTS OF THE RUBY MINES DISTRICT.

Relationship.	Shan.	Lishaw.	Kachin.	Maru.	Lashi.	Szi.	Maing Kwin Palaung.	Humai Palaung.
15(*a*) What does B's sister call B's daughter.	Lauying ..	Naw-za ...	Ngai-sha ...	Nga-zaw ...	Ă-zaw ...	Nga-zaw ..	Ă-byi ...	Kawn-i-pau.
15(*b*) What does B's daughter call B's—								
(1) Elder sister ...	1 Pa-saw ...	Oma ...	Nu-tung ...	Nga-maw ...	Myè-maw ...	Mi-maw ...	Ma-au ...	Ma-dang.
(2) Younger sister ...	2 Mye-na ...	Zu-zaw ..	Nu-toi ...	Nga-htaw ..	Myè-htang ...	Mi-htang ..	Ma-det ...	Ma-det.
16(*a*) What does B's sister's husband call B's—								
(1) Son	1 Law-sai ..	A-hye-tha ...	} Ngai-sha ...	Nga-zaw ...	A-zaw ...	Nga-zaw ...	Kawn ...	Kawn.
(2) Daughter	2 Law-ying ...	A-myi-tha ...						
16(*b*) What does B's son or daughter call B's—								
(1) Elder sister's husband ...	1 Pa-nung ...	O-hpa ..	Wa-di ...	Hpa-maw ...	Hpa-maw ...	Hpa-maw ...	Kun-au ...	Kun-dang.
(2) Younger sister's husband ...	2 Na-hkwoi ...	Vo-vo ..	Wa-toi ...	Hpa-let ..	Hpa-htang ...	Hpa-htang ...	Kun-det ...	Kun-det.
17 What does A call his mother's sister's child.	Same as 8 ...	Same as 8 ...	Same as 8 ...	Same as 8 ...	Same as 8 ...	Same as 8 ...	Same as 8 ..	Same as 8.
18(*a*) What does A's father call A's—								
(1) Son	1 Lau-sai ...	Li-pa ..	} Ngai-sha ...	Ngai-myit ...	Myit-zaw ...	Nga-shu ..	Lawn ...	{ 1 Lan-i-mai.
(2) Daughter	2 Lau-ying ..	Li-ma ..						{ 2 Law-i-pan.
18(*b*) What does A's son or daughter call A's father.	Pw-awk ..	Ă-pa ...	Ji-hkai ...	Nga-hpak ...	A-hpon ...	Yi-chi ...	Dà-awk ...	Pa-awk.
18(*c*) What does A's mother call A's son or daughter.	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*).
18(*d*) What does a son or daughter call A's mother.	Ya-awk ..	Ă-zū ..	Wè-hkai ...	Ngai-hpyit ..	Ă-hpyit ...	Yi-woi ..	Ya-awk ...	Ya-awk.
18(*e*) What does B's father or mother call B's—								
(1) Son	} Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)	Same as 18(*a*)
(2) Daughter	} and 18(*c*)	and 18(*c*).	and 18(*c*).	and 18(*c*).	and 18(*c*).	and 18(*c*).	and 18(*c*).	and 18(*c*).
18(*f*) What does B's son or daughter call—								
(1) B's father	1 Pu-nai ...	Ă-pā ..	Ji-dwi ...	Hpuk-kai ..	Ă-hpon ...	Yi-chi ...	Da-nai ...	Ta-nai.
(2) B's mother	2 Ya-nai ...	A-hpaw .	Wè-dwi ...	Nga-hpyit ...	Ă-hpyit ...	Yi-woi ...	Ya-nai ...	Ya-nai.
19(*a*) What does a man call his wife.	Mye ..	A-byi-tha-i-mau.	Ngai-sha-gaun	Nga-zaw-un	Nga-zaw-un	Nga-zaw Yang-nu.	Ū-ya ...	I-pan-an (during prime.) Ya (when old).
19(*b*) What does a woman call her husband.	Hpo ...	A-byi-tha-i-hpau.	Nga-sha kawa	Nga-zaw-yo hpaw.	Nga-zaw-hpu	Nga-zaw yang-wa.	Ū-da ...	Ū-mai (during prime). Ū-lā-an (when old).
20(*a*) What does B's father's or mother call B's husband.	Luk, Khwoi or Luk-mau.	Ngaw-mih ..	Ngai-hku ...	Nga-ok ...	Zaw-ouk ...	Sa-on ...	Ū-hkwoi ...	Men.
20(*b*) What does B's husband call B's—								
(1) Father	1 Paw-saw ..	Bā-bā ...	Sa ...	Nga-nyi ...	Yuk-hpaw ...	Yi-sa ...	Bè-ū ..	Bé-u.
(2) Mother	2 Mye-sau or Awk-nai.	Mā-mā ..	Ni ..	Nga-na ...	Yuk-ni ...	On-maw ..	Ū-kan ...	Kan.
20(*c*) What does A's father or mother call A's wife.	Luk-paū ...	Si-ma ...	Ngai-nam ...	Tan-maw ...	Tu-nam ...	Tu-maw ...	Bai ...	Pi.
20(*d*) What does A's wife call A's—								
(1) Father	} Same as 20(*b*)	Same as 20(*b*)	{ 1 Gu ...	Ngă-vung ...	Vang-maw ..	Yi-gu ...	} Tawchaw or	Pé-u-Kan.
(2) Mother			{ 2 Moi ...	Ngă-na ..	Ning-maw ...	Yi-moi ...	} Be-u-kan.	
21(*a*) What does B's brother call B's husband—								
(1) If latter is older than he ..	1 Pyi-Ukwoi or Pyi-man.	} Myi-shè ..	Hkan ...	Nga-hkan ...	Hkon ...	Hkan ...	{ 1 Yi-ek ...	} Men.
(2) If latter is younger than he	2 Nawng-hkwoi or Nawng-man.						{ 2 Nawng-khwoi.	
21(*b*) What does B's husband call B's brother—								
(1) If latter is older than he ...	} As above ..	{ 1 Kŏ-kŏ ..	} As above ...	As above ...	As above ...	As above ...	{ 1 Man-dang	1 Yuk.
(2) If latter is younger than he		{ 2 Kŏ-kŏ ...					{ 2 Man-det ...	2 Va.
22(*a*) What does B's sister call B's husband—								
(1) If latter is older than she...	Pyi-hkwoi-hkam.	Chi-fū ...	Gu ..	Ngă-maw ...	A-vang ...	Yi-gu ...	Yi-ek ...	Va.
(2) If latter is younger than she	Nawng-hkwoi hkam.	Myi-shè ..	Rat ..	Ngă-nan ...	Ă-be ..	Yi-rat ...	Nawng-khwoi	Yuk.
22(*b*) What does B's husband call B's—								
(1) Elder sister ...	1 Pyi-san ...	Chi-chi ..	Rat ..	Ngă-bai ...	Be ...	Yi-rat ...	Mai-dang ..	I-un.
(2) Younger sister ...	2 Nawng-saw or Na-san.	A-mye-tha..	Ngai-nam ...	Ngă-nan ...	Naung-zaw ...	Tu-maw	Wa ...	Va.
23(*a*) What does A's—								
(1) Elder brother	1 Nawng-pāu	Nye-ma ..	Ngai-nam ...	Ngai-nan ...	Naung-zaw ..	Tu-maw ...	Bai ...	Pi.
(2) Younger brother call A's wife.	2 Pyi-lo ..	Ma-la ..	Rat ..	Naung-zaw ...	Be ...	Yi-rat ...	Âw .	Âi.
23(*b*) What does A's wife call—								
(1) A's elder brother ...	1 Pyi-mau ..	Kŏ-kŏ ..	Gu ...	Nga-bai ...	Naung-zaw ...	Nga-gu ...	Yi-ek ..	Yuk.
(2) A's younger brother ...	2 Nawng-mān	A-byè-thaw .	Rat ...	Nga-maw ...	Mang ...	Yi-rat ...	Va ...	Va.
24(*a*) What does—								
(1) A's elder sister ...	1 Nawng-paū	A-mye-tha ...	} Ning ...	1 Nga-nan ...	Yuk-maw ..	Yi-ning ...	{ 1 Bè-i ...	Pi.
(2) A's younger sister call A's wife.	2 Pyi-nang or Pyi-sau.	Mā-lā ..		2 Nga-pai ...			{ 2 Âw ..	Âi.
24(*b*) What does A's wife call—								
(1) A's elder sister ...	1 Pyi-saw ...	Chi-chi ...	} Ning ...	1 Yuk-maw ...	Yuk-maw ...	Yi-ning ...	{ 1 Âw ..	Âi.
(2) A's younger sister ...	2 Nawng-san	Ă-myo-than ...		2 Ngă-nan ...			{ 2 Bè-i ...	Va.
25 What does A call his wife's—								
(1) Elder sister's husband ...	1 Pyi-hkwoi	Chi-fū ..	Hpu ...	Ngă-maw ...	(I forgot to ask about this).	Yi-mang ...	Byi ...	{ 1 Pyi.
(2) Younger sister's husband...	2 Nawng hkwoi.	Myi-shè ..	Ngai-nan ...	Ngă-nan ...		Nga-gu ...		{ 2 Va.
26 What does a woman call her husband's—								
(1) Elder brother's wife ..	1 Pyi-nang ..	Ma-la ..	Na ...	Ngă-pai ...	Pyi-maw ..	(I forgot to ask about this.)	Ma-dang ..	I-un.
(2) Younger brother's wife ...	2 Nawng-sau	Ă-mye-than ...	Ngai-nau ...	Ngă-nan ...	Naw ...		Ma-det ..	Pi.
27 What does a man call his son's wife's parent's or father and mother.	} 1 Paw-lawng	Bā-bā ...	Ka-hkau ..	Ngă-hkan ...	Hkon ..	Hkan ..	Bè-u ..	Pè.
	} 2 Mye-lawng	Mā-mā ..	Ni ...	Ngă-na ...	Ni ...	On-man ..	Kan ...	Kan.

NOTE.—In all the above illustration A is to be considered as a man.
In all the above illustration B is to be considered as a woman.

APPENDIX B-II.

Terms of Relationship in the dialects of the Tawnpeng State, Northern Shan States.

Miao Language.

1.	Father	Ysü.	30.	Wife's sister's child ..	Nyicho.
2.	Son	Mitto.	31.	Mother's sister's child	Kumbao.
3.	Mother	Na.	32.	Father's father ...	Yiö.
4.	Daughter	Mingsai.	33.	Father's mother ...	Baw.
5.	Elder brother (m.s.) ...	Ti-lao.	34.	Son's son (m.s.) (w.s.)...	Mit kü.
6.	Younger brother (m.s.)	Nyit kü.	35.	Mother's father . .	Yiö-kung.
7.	Elder sister (w.s.) ...	Tai-lao.	36.	Mother's mother ...	Baw-kung.
8.	Younger sister (w.s.) ...	Na hlwa.	37.	Daughter's son (m.s.) (w.s.)	Tsit kü.
9.	Elder sister (m.s.) ...	Mwa.			
10.	Elder brother (w.s.)	Nö or yütlam.	38.	Husband	Kai-yö.
11.	Younger brother (w.s.)	Nö or yutlam.	39.	Wife	Kapo.
12.	Father's brother ...	Tsunzur.	40.	Wife's father ...	Yiötsu.
13.	Brother's child ...	Döan dū.	41.	Wife's mother ...	Na-tai.
14.	Father's brother's wife	Nazur.	42.	Daughter's husband (m.s.) (w.s.)	Rö.
15.	Husband's mother's child	Nyit kü.			
16.	Father's brother's child	Nyit kü.	43.	Husband's father ...	Tsu.
17.	Father's sister ...	Paw-nyan.	44.	Son's wife (m.s.) (w.s.)	Myinya.
18.	Brother's child (w.s.) ...	Nyit ku.	45.	Husband's mother ...	Na.
19.	Father's sister's husband	Sa-gwi-yi.	46.	Wife's brother ...	Yüt hlan.
20.	Wife's brother's child . .	Nö-kü.	47.	Wife's sister ...	Na hlaw.
21.	Father's sister's child ...	Na-hlwa.	48.	Sister's husband (m.s.) (w.s.)	Tsa lo.
22.	Mother's brother ...	Tsutlang.			
23.	Sister's child ...	Yao-yi.	49.	Husband's brother ...	Yūt hlan.
24.	Mother's brother's wife	Elao.	50.	Husband's sister ...	Hmwa.
25.	Husband's sister's child	Mwa.	51.	Brother's wife (m.s.) (w.s.)	Nan tsu Tuhlan.
26.	Mother's brother's child	Nö ku.			
27.	Mother's sister ...	Tai.	52.	Wife's sister's husband	Tsu lo.
28.	Sister's child (w.s.) ...	Kum bao.	53.	Husband's brother's wife	Nan tsu.
29.	Mother's sister's husband	Tagwiyi.	54.	Son's wife's parents ...	Chua.

Lihsaw Language.

1.	Father	Baba.	30.	Mother's sister's husband.	A-wü.
2.	Mother	Mama.			
3.	Son	Nwaza.	31.	Wife's sister's child ...	Zadu.
4.	Daughter	Ami.	32.	Mother's sister's child...	Zadu.
5.	Elder brother (m.s.) ...	Koko.	33.	Father's father ...	Ala.
6.	Younger brother (m.s.)	Nyisa.	34.	Father's mother ...	A-pye.
7.	Elder sister (w.s.) ..	Jè-jè.	35.	Son's son (m.s.) (w.s.)...	Lippa.
8.	Younger sister (w.s.) ...	Nyima.	36.	Mother's father ...	Ala.
9.	Elder sister (m.s) ...	Akyi.	37.	Mother's mother ...	A-pye.
10.	Younger sister (m.s.) ..	Nyima.	38.	Daughter's son (m.s.) (w.s.)	Lippa.
11.	Elder brother (w.s.) ...	A-yi.			
12.	Younger brother (w.s.)	Nyisa.	39.	Husband	Za-gu.
13.	Father's brother ...	A-wo.	40.	Wife	Za-mung.
14.	Brother's child (m.s.) ...	Zadu.	41.	Wife's father ...	Baba.
15.	Father's brother's wife	Emaro.	42.	Wife's mother ...	Mama.
16.	Husband's mother's child	Haila.	43.	Daughter's husband (m.s) (w.s.)	Mè.
17.	Father's brother's child	Zadu.			
18.	Father's sister ..	Nyanya.	44.	Husband's father ...	Baba.
19.	Brother's child (w.s.) ...	Zadu.	45.	Husband's mother ...	Mama.
20.	Father's sister's husband	A wü.	46.	Son's wife (m.s.) (w.s.)	Chi-na.
21.	Wife's brother's child	Zadu.	47.	Wife's brother ...	Nyiza.
22.	Father's sister's child	A-pa.	48.	Wife's sister ...	Nama.
23.	Mother's brother ...	O-ma.	49.	Sister's husband (m.s.) (w.s.)	Je-fū.
24.	Sister's child ...	Zadu.			
25.	Mother's brother's wife	A wü.	50.	Husband's brother ...	Na-la.
26.	Husband's sister's child	Zadu.	51.	Brother's wife (m.s.) (w.s.)	Zanungma.
27.	Mother's brother's child	Zadu.			
28.	Mother's sister ...	Nyan nyan.	52.	Wife's sister's husband	Jè-fü.
29.	Sister's child (w.s.) ...	Zadu.	53.	Husband's brother's wife	Nyi-sü.
			54.	Son's wife's parents ...	Zinja.

(m. s.)=men speaking (w. s.)=women speaking.

APPENDIX B-II—*continued.*

TERMS OF RELATIONSHIP IN THE DIALECTS OF THE TAWNPENG STATE, NORTHERN SHAN STATES.

La or Wa Language.

1. Father	Kün.	30. Mother's sister's husband	Apao.
2. Mother	Ma.	31. Wife's sister's child	Gwaniao.
3. Son	Gwanbi.	32. Mother's sister's child	Gwaniao.
4. Daughter	Gwan-pun.	33. Father's father	Awk bi.
5. Elder brother (m.s.)	A-kye.	34. Father's mother	Awk pun.
6. Younger brother (m s.)	Hpu.	35. Mother's father	Nai-bi.
7. Elder sister (w.s.)	A-kye.	36. Mother's mother	Nai-pun.
8. Younger sister (w.s.)	A-hpo.	37. Son's son (m.s.) (w.s.)	Gwansoi.
9. Elder sister (m.s.)	A-kye.	38. Daughter's son (m.s.) (w.s.)	Gwansoi.
10. Younger sister (m.s.)	A-hpo.	39. Husband	Bi.
11. Elder brother (w.s.)	A-kye.	40. Wife	Pün.
12. Younger brother (w.s.)	A-hpo.	41. Wife's father	Nai-bi.
13. Father's brother	Kuniao.	42. Wife's mother	Nai-pun.
14. Brother's child (m.s.)	Hpo.	43. Daughter's husband (m.s.) (w.s.)	Ke.
15. Father's brother's wife	Ma-iao.	44. Husband's father	Awk bi.
16. Husband's mother's child	A-hpo.	45. Husband's mother	Awk pun.
17. Father's brother's child	Hpo.	46. Son's wife (m.s.) (w.s.)	Pün.
18. Father's sister	Ma-iao.	47. Wife's brother	Hpo.
19. Brother's child (w.s.)	Hpo.	48. Wife's sister, elder	Ji.
20. Father's sister's husband	A-pao.	49. Wife's sister, younger	Hpo.
21. Wife's brother's child	Iao.	50. Sister's husband (m.s.) (w.s.)	Ük.
22. Mother's brother	A-pao.	51. Brother's wife (m.s.) (w.s.)	Hpo.
23. Sister's child (m.s.)	Ma-iao.	52. Wife's sister's husband	Hpo.
24. Mother's brother's wife	Hpaw.	53. Husband's brother's wife	Pün.
25. Husband's sister's child	Gwaniao.	54. Son's wife's parents	Dona.
26. Mother's brother's child	Gwaniao.		
27. Mother's sister, elder	A-ting.		
28. Mother's sister, younger	Ma-iao.		
29. Sister's child (w.s.)	Gwaniao.		

Pale Language (Mantong Pales).

1. Father	Gun.	27. Mother's brother's child	Shan "lan" is used.
2. Son	Gawnaroi.	28. Mother's sister	Madao.
3. Mother	Ma.	29. Mother's sister's husband	Guntia.
4. Daughter	Goi ban	30. Wife's sister's child	Shan "lan" is used.
5. Elder brother (m.s.)	Ekat.	31. Mother's sister's child	Gawnaroi.
6. Younger brother (m.s.)	Wa.	32. Father's father	Da.
7. Elder sister (w.s.)	Ekat.	33. Father's mother	Ya.
8. Younger sister (w.s.)	Wa.	34. Son's son (m.s.) (w.s.)	Shan "lan" is used.
9. Elder sister (m.s.)	Ekat.	35. Mother's father	Da.
10. Younger sister (m.s.)	Wa.	36. Mother's mother	Ya.
11. Elder brother (w.s.)	Ekat.	37. Daughter's son (m.s.) (w.s.)	Shan "lan" is used.
12. Younger brother (w.s)	Wa.	38. Husband	E-mai.
13. Father's brother	Guntia.	39. Wife	Aw.
14. Brother's child (w.s.)	No word—Shan "lan" is used.	40. Wife's father	Da.
15. Father's brother's wife	Madao.	41. Daughter's husband	I-ya.
16. Husband's mother's child	Wa.	42. Wife's mother	Gun.
17. Father's brother's child	Gawnaroi.	43. Husband's father	Bü.
18. Father's sister	Gun.	44. Son's wife (m.s.) (w.s.)	Aw.
19. Brother's child	No word—Shan "lan" is used.	45. Husband's mother	Gun.
20. Father's sister's husband	Mŏ.	46. Wife's brother	Bü.
21. Wife's brother's child	No wŏrd—Shan "lan" is used.	47. Sister's husband	Madao.
22. Father's sister's child	Do.	48. Husband's brother	Aw.
23. Mother's brother	Bŭ.	49. Brother's wife (m.s.) (w.s.)	Madao.
24. Sister's child.	Shan "lan" is used.	50. Husband's sister	Wa.
25. Mother's brother's wife	Aw.	51. Wife's sister's husband	Guntia.
26. Husband's sister's child	Gun.	52. Husband's brother's wife	Madao.
		53. Son's wife's parents	Sinchia.

(m. s.) = Men speaking. (w. s.) = Women speaking.

APPENDIX B-II—*continued.*

TERMS OF RELATIONSHIP IN THE DIALECTS OF THE TAWNPENG STATE, NORTHERN SHAN STATES.

Pale Language (Man-wun Pales).

1. Father	U. (Shan).	25. Mother's sister's husband.	Paü.
2. Mother	Mè (Shan).	26. Wife's sister's child ...	Lan (Shan).
3. Son	Gawnmiai.	27. Father's father ...	Awk.
4. Daughter	Gawnpan.	28. Father's mother ...	Len.
5. Elder brother (m.s.) ...	Bi (Shan)	29. Mother's father ...	Awk.
6. Elder sister (m.s.) (w.s.)	Bi-pan.	30. Mother's mother ...	Len.
7. Younger brother (m.s.) (w.s.)	Vè miai.	31. Daughter's son } 32. Son's son } ...	Lan (Shan).
8. Younger sister (m.s.) (w.s.)	Vè pan.	33. Husband	Tai.
9. Father's brother ...	Ao.	34. Wife	Yè.
10. Brother's child ...	Gawnbi.	35. Wife's father ...	Paü.
11. Father's brother's wife	Mădeng.	36. Wife's mother ...	Kan.
12. Husband's mother's child.	Nă-mao.	37. Daughter's husband (m.s.) (w.s.)	Lukkoi (Shan).
13. Father's brother's child	Lan (Shan).	38. Husband's father ..	Paü.
14. Father's sister ...	Kan.	39. Husband's mother ...	Kan.
15. Brother's child ..	Lan (Shan).	40. Son's wife (m.s) (w.s.) ...	Luk paü.
16. Father's sister's husband	Nawngkoi.	41. Wife's brother ...	Amao.
17. Wife's brother's child...	Ă-mao.	42. Wife's sister ...	Ma-i.
18. Father's sister's child ...	Lan (Shan).	43. Sister's husband (m.s.) (w.s.)	Kundet.
19. Sister's child ...	Lan (Shan).	44. Husband's brother ...	Amao.
20. Mother's brother, elder	Maye.	45. Husband's sister ...	Pa (Shan).
21. Mother's brother, younger.	A-mao.	46. Brother's wife ..	Amao.
22. Mother's brother's child	Lan (Shan).	47. Wife's sister's husband	Kundet.
23. Mother's sister ...	A-mya.	48. Husband's brother's wife	Pa (Shan).
24. Sister's child (w.s.) ...	Lan.	49. Son's wife's parents ...	Kan.

Pale Language (Kongweng Pales).

1. Father	Gun.	23. Mother's sister's husband.	Kunrang.
2. Mother	Ma.	24. Mother's sister's child ...	Madang.
3. Son	Gawn.	25. Wife's sister's child ...	Gawn madet.
4. Daughter	Gawnpan	26. Father's father ...	Ta-awk.
5. Elder brother (m.s.) ...	Pi (Shan).	27. Father's mother ...	Ya-awk.
6. Younger brother (m.s.)	Wa-mai.	28. Mother's father ...	Ta-nai.
7. Elder sister (m.s.) (w.s.)	Pi-nang (Shan).	29. Mother's mother ...	Ya-nai.
8. Younger sister (m.s.) (w.s.)	Wa-pan.	30. Son's son } 31. Daughter's son }	Lan (Shan).
9. Father's brother ...	Gunda.	32. Husband ...	Ta.
10. Brother's child (m.s.)	Gawn-pi-sai or Gawnwa (Shan).	33. Wife	Kaya.
		34. Wife's father ...	Ta-mai.
11. Father's brother's wife	Pe.	35. Wife's mother ...	Kan.
12. Husband's mother's child.	Wa.	36. Husband's father ...	Wa-pe.
		37. Husband's mother ...	Kan.
13. Father's brother's child	Gawndet.	38. Daughter's husband ...	Yuk.
14. Father's sister ...	Kan.	39. Son's wife ...	Bi.
15. Brother's child (w.s.) ...	Gawn-pi (Shan).	40. Wife's brother ...	Pe.
		41. Sister's husband ...	Yuk.
16. Father's sister's husband	Pe.	42. Wife's sister, elder ...	Madang.
17. Wife's brother's child	Gawn-pe.	43. Wife's sister, younger...	Madet.
18. Mother's brother ...	Pe.	44. Brother's wife ...	Nawng-paü. (Shan).
19. Sister's child ...	Dawn-pinang (Shan).	45. Husband's brother ...	Mao.
		46. Husband's sister ..	Wa-lu.
20. Husband's sister's child	Wa-ao.	47. Wife's sister's husband	Kundet.
21. Mother's brother's child	Gawn-pe.	48. Husband's brother's wife.	Madet.
22. Mother's sister ...	Madet.	49. Son's wife's parents ...	Pe.

(m. s.)=Men speaking (w. s.)=Women speaking.

APPENDIX B-II—*continued.*

TERMS OF RELATIONSHIP IN THE DIALECTS OF THE TAWNPENG STATE, NORTHERN SHAN STATES.

Pale Language (Huleng Pales).

1. Father	...	28. Mother's elder sister	... Gawn ma-an
2. Mother	...	29. Mother's younger sister	... Gawn madet.
3. Son	...	30. Father's father	... Guna.
4. Daughter	...	31. Father's mother	... Ma-aw.
5. Elder brother (m.s) (w.s)	... Pi-mao.	32. Mother's father	... Ya-awk.
6. Younger brother (m.s.) (w.s.)	Waimwa.	33. Mother's mother	... Ya-nai.
7. Elder sister (m.s.) (w.s.)	... Pitabya.	34. Son's son } 35. Daughter's son }	... Lan-i-mwa.
8. Younger sister (m.s.) (w.s.)	... Waratabya.		
9. Father's brother	... Pi-hpan.	36. Son's daughter } 37. Daughter's daughter }	... Lan-i-pwan.
10. Brother's child (m.s.)	... Gawnganan.		
11. Father's brother's wife	... Ma-an.	38. Husband ...	... Imwa.
12. Father's brother's child	... Gawnpinan.	39. Wife ...	... I-pana.
13. Husband's brother's child	. . Mame mwa	40. Wife's father	... Ta-nai.
14. Father's sister	... Ganni.	41. Wife'smother	... Ya-nai.
15. Brother's child (w.s.)	... Gawn-ganan,	42. Daughter's husband	... Kwe (Shan)
16. Father's sister's husband	... Biao.	43. Son's wife ...	... Lukpaŭ (Shan).
17. Wife's brother's child	... Gawn-maan.	44. Husband's father	... Biao-wa
18. Father's sister's child	... Gawn kan.	45. Husband's mother	... Gan.
19. Mother's brother	... Biao.	46. Wife's brother	... Biao.
20. Sister's child (m.s.)	... Gawn biao.	47. Sister's husband	... Biao.
21. Mother's brother's wife	.. Gan.	48. Wife's sister	... Wa.
22. Mother's brother's child	... Gawn gan.	49. Husband's brother	... Biao.
23. Mother's sister, elder	... Ma-an.	50. Brother's wife	... Biao.
24. Mother's sister, younger	... Madet.	51. Husband's sister	... Wa.
25. Sister's child (w.s.)	... Gawn gan.	52. Wife's sister's husband	... Nawngkwè (Shan)
26. Mother's sister's husband	... Ganan.	53. Husband's brother's wife	... Aw.
27. Wife's sister's child	... Gawn madet.	54. Son's wife's parents	... Biao.

Palaung Language.

1. Father	... Kŭn.	32. Mother's sister	... An-i-pun.
2. Son	... Kwan-i-me.	33. Sister's child (w.s.)	... Kwan vi-dang
3. Mother	... Ma.	34. Mother's sister's husband	An-i-me.
4. Daughter	... Kwan-i-pun	35. Wife's sister's child	... An.
5. Elder brother (m.s.)	... Vi-dang.	36. Father's father	... Ta.
6. Younger brother (m.s.)	... Wa-i-me.	37. Son's son (m.s.)	... Su.
7. Elder sister (w.s.)	... Di-dang.	38. Father's mother	... Ya.
8. Younger sister (w.s.)	... Wa.	39. Son's son (w.s.)	... Su.
9. Elder sister (m.s.)	... Di-dang.	40. Mother's father	... Ta.
10. Elder brother (w.s.)	... Vi-dang.	41. Daughter's son (m.s.)	... Su.
11. Younger sister (m.s.)	... Wa-i-pun.	42. Daughter's son (w.s.)	... Su.
12. Younger brother (w.s.)	... Wa-i-me.	43. Mother's mother	... Ya.
13. Father's elder brother	... An-i-me.	44. Husband	.. Ra-le or E-me. Kun-i.
14. Father's younger brother	... Kun-di.	45. Wife ...	... I-pun or Ma-i.
15. Elder brother's child (m.s.)	Kwan-vi-dang	46. Wife's father	... Pŏ.
16. Younger brother's child (m.s.)	Kwan wa.	47. Daughter's husband (m.s.)	Lu-Kuei.
17. Father's elder brother's wife.	An-i-pun.	48. Wife's mother	... Kan.
18. Father's younger brother's wife	Ma-di.	49. Daughter's husband (w.s.)	Lu Kuei.
19. Husband's mother's child	Kwan-vi.	50. Husband's father	... Pŏ.
20. Father's brother's child	... Vi-dang (same terms as for brothers and sisters).	51. Son's wife (m.s.)	... I-dŏ.
		52. Son's wife (w.s.)	... I-do.
		53. Husband's mother	... Vi.
		54. Wife's brother	... Vi.
21. Father's elder sister	... Vi-dŏ.	55. Sister's husband (m.s.)	... Vi.
22. Father's younger sister	... Dŏ-di.	56. Sister's husband (w.s.)	... Vi.
23. Brother's child (w.s.)	... Kwan-vi-dang	57. Wife's sister	... An-i-pun.
24. Father's sister's husband	Pŏ.	58. Husband's brother	... Vi.
25. Wife's brother's child	... Pa-dang.	59. Brother's wife (m.s.)	... De.
26. Father's sister's child	... Vi-dang.	60. Brother's wife (w.s.)	... Vi.
27. Mother's brother	... Pa-dang.	61. Husband's sister	... Vi.
28. Sister's child (m.s.)	... Kwan-vi-dŏ.	62. Wife's sister's husband	... An-i-me.
29. Mother's brother's wife	... Kan.	63. Husband's brother's wife	Vi.
30. Husband's sister's child	... Pa-dang.	64. Son's wife's parents	... Po (father).
31. Mother's brother's child	Vi-dang.		Kan (mother)

NOTE.—Showing how brothers and sisters are differentiated.

BROTHERS (ELDER).

Eldest	... Vi-dang.	Fourth	... Vi-dok.
Second	... Vi-di.	Fifth	... Vi-kru.
Third	... Vi-di-ya.	Sixth	... Vi-dawn.

SISTERS (YOUNGER).				SISTERS (ELDER).			
Eldest	...	...	Wa-dang.	Eldest	...	...	Di-dabg.
&c.	&c.	&c.	&c.	&c.	&c.	&c.	&c.

(m.s.)—Men speaking ... (w.s.)—Women speaking.

APPENDIX B-III—*continued.*

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Shan.

1.	Father ...	Ū or Paw.
2.	Mother ...	Mè.
3.	Elder brother (m.s.)	Pī sai, Pi ai.
4.	Elder sister (w.s.)	Pī nang.
5.	Elder / Younger } Sister (m.s.)	Pī nang. Nawng ging.
6.	Father's brother ...	Lung: ao.
7	Father's brother's wife.	Pā lo: ā nang.
8.	Father's brother's child.	Pī: nawng.
9.	Father's sister ...	Pā: ā.
10.	Father's sister's husband.	Lōng hkwè: ao hkwe.
11.	Father's sister's child.	Pī: nawng.
12.	Mother's brother ...	Lōng: na.
13.	Mother's brother's wife.	Pā.
14.	Mother's brother's child.	Lan.
15.	Mother's sister ...	Na.
16.	Mother's sister's husband.	Lōng hkwè: na hkwe.
17.	Mother's sister's child.	Lan.
18.	Grand father. Grand mother. — Father's father.	Hking.
19.	Grand father. Grand mother. — Father's mother.	Awk.
20.	Grand father. Grand mother. — Mother's father.	Pū.
21.	Grand father. Grand mother. — Mother's mother.	Nai.
22.	Husband ...	Hpō.
23.	Father-in-law. Mother-in-law. — Wife's father.	Pū nai.
24.	Father-in-law. Mother-in-law. — Wife's mother.	Awk nai.
25.	Father-in-law. Mother-in-law. — Husband's father.	Pu nai E: hking.
26.	Father-in-law. Mother-in-law. — Husband's mother.	Awk nai: awk.
27.	Wife's brother ...	Pī sai: nawng sai.
28.	Wife's sister ...	Pī nawng: nawng ying.
29.	Husband's brother	Pī: nawng.
30.	Husband's sister ...	Pī nawng: nawng ying.
31.	Wife's sister's husband.	Pī hkwe: nawng hkwè.
32.	Husband's brother's wife.	Pi lo: nawng paū.
33.	Son's wife's parents	Pu lawng: awk lawng.

1.	Son	Luk sai.
2.	Daughter	Luk ying.
3.	Younger brother (m.s.)	Nawng sai.
4.	Younger sister (w.s.) ...	Nawng ying.
5.	Brother (w.s.) Elder ... / Younger ...	Pī sai. Nawng sai.
6.	Brother's child (m.s.)...	Lau.
7.	Husband's mother's child.	Pi: nawng.
8.	Brother's child (w.s.) ...	Lau (sai: ying).
9.	Wife's brother's child...	Lan.
10.	Sister's child (m.s.) ...	Lan.
11.	Husband's sister's child	Lan.
12.	Sister's child (w.s.) ...	Lan.
13.	Wife's sister's child ...	Lan.
14.	Grand child. — Son's son (m.s.)	Lan.
15.	Grand child. — Son's son (w.s.)	Lan.
16.	Grand child. — Daughter's son (m.s.)	Lan.
17.	Grand child. — Daughter's son (w.s.)	Lan.
18.	Wife	Mè.
19.	Son-in-law. Daughter-in-law. — Daughter's husband (m.s.)	Luk hkwè.
20.	Son-in-law. Daughter-in-law. — Daughter's husband (w.s.)	Luk hkwè.
21.	Son-in-law. Daughter-in-law. — Son's wife (m.s.)	Luk paū.
22.	Son-in-law. Daughter-in-law. — Son's wife (w.s.)	Luk paū.
23.	Sister's husband (m.s.)	Pī hkwe: nawng hkwe.
24.	Sister's husband (w.s.)	Pi hkwè: nawng hkwè.
25.	Brother's wife (m.s.) ...	Pī lo: naung paü.
26.	Brother's wife (w.s.) ...	Pī lo: nawng paü.

(m.s.)=Men speaking. (w.s.)=Women speaking.

APPENDIX B-III—*continued.*

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Palaung : *Humông.*

1.	Father	Kun.
2.	Mother	Mā.
3.	Elder brother (m.s.) ...	Wai.
4.	Elder sister (w.s.) ...	Wai-ai-hpan.
5.	{Elder / Younger} Sister (m.s.)	{Wà / Wa} -i-hpan.
6.	Father's brother ...	Kun-an.
7.	Father's brothers' wife	An-i-hpan.
8.	Father's brother's child	Wai-i-wa.
9.	Father's sister ...	Kan-e-hpan.
10.	Father's sister's husband	Pö.
11.	Father's sister's child	Wai-i-hpan : wa-e-mè.
12.	Mother's brother ...	Pö dang : Pö dyat.
13.	Mother's brother's wife	Kawu pö.
14.	Mother's brother's child	Wai-i-wa.
15.	Mother's sister ...	Tè.
16.	Mother's sister's husband.	Kun an.
17.	Mother's sister's child...	Kawn te.
18.	Grand father. Grand mother. — Father's father	Tā.
19	Grand father. Grand mother. — Father's mother	Yā.
20.	Grand father. Grand mother. — Mother's father	Tā.
21.	Grand father. Grand mother. — Mother's mother.	Yā.
22.	Husband	I-mai.
23.	Father-in-law. Mother-in-law. — Wife's father...	Pö.
24.	Father-in-law. Mother-in-law. — Wife's mother	Kān.
25.	Father-in-law. Mother-in-law. — Husband's father.	Pö.
26.	Father-in-law. Mother-in-law. — Husband's mother.	Kān.
27.	Wife's brother ...	Pö dang: pö dyat.
28.	Wife's sister ...	Tè.
29.	Husband's brother ...	Kun-an.
30.	Husband's sister ...	Kan dyat.
31.	Wife's sister's husband	Kun-an.
32.	Husband's brother's wife	Aw.
33.	Son's wife's parents ...	Pö.

1.	Son ...	Kawn-i-mai.
2.	Daughter ...	Kawn-i-hpan.
3.	Younger brother (m.s)	Wa-i-mai.
4.	Younger sister (w.s.) ...	Wa-i-hpan.
5.	Brother (w.s.) {Elder ... / Younger}	{Wai / Wa} i-mai.
6.	Brother's child (m.s.)...	Kawn kun-an.
7.	Husband's mother's child.	Pö.
8.	Brother's child (w.s.)...	Kawn kun-an.
9.	Wife's brother's child...	Kwan pö.
10.	Sister's child (m.s.) ...	Kwan pö.
11.	Husband's sister's child	Kwan pö.
12.	Sister's child (w.s.) ...	Kwan kān.
13.	Wife's sister's child ...	Kawn-an.
14.	Grand child — Son's son (m.s.) ...	Sao.
15.	Grand child — Son's son (w.s.) ...	Sao.
16.	Grand child — Daughter's son (m.s.).	Sao.
17.	Grand child — Daughter's son (w.s.).	Sao.
18.	Wife	I-upan.
19.	Son-in-law Daughter-in-law — Daughter's husband (m.s.)	Ëk.
20.	Son-in-law Daughter-in-law — Daughter's husband (w.s.).	Ëk.
21.	Son-in-law Daughter-in-law — Son's wife (m.s.)	Aw.
22.	Son-in-law Daughter-in-law — Son's wife (w.s.)	Aw.
23.	Sister's husband (m.s.)	Ëk.
24.	Sister's husband (w.s.)	Ëk.
25.	Brother's wife (m.s.) ...	Aw.
26.	Brother's wife (w.s.) ...	Aw.

(m.s.)=Men speaking. (w.s.)=Women speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Palaung: *Pangnim.*

1.	Father	Kun.	18.	Grand father / Grand mother — Father's father	Hta.
2.	Mother	Mā.	19.	Grand father / Grand mother — Father's mother	Yā.
3.	Elder brother (m.s.)	Wai.			
4.	Elder sister (w.s.)	Wai-i-hpan.			
5.	Elder / Younger Sister (m.s.)	Wai / Wa i-hpan.	20.	Grand father / Grand mother — Mother's father	Hka.
6.	Father's brother	Kun dyat.	21.	Grand father / Grand mother — Mother's mother	Yā.
7.	Father's brother's wife	Au-i-hpan.	22.	Husband	I-mè.
8.	Father's brother's child	Wai.	23.	Father-in-law / Mother-in-law — Wife's father	Pō.
9.	Father's sister (elder)	Au-i-hpan	24.	Father-in-law / Mother-in-law — Wife's mother	Kōn.
	(younger)	Kōn-i-hpan.	25.	Father-in-law / Mother-in-law — Husband's father	Pō.
10.	Father's sister's husband (elder)	Au-i-me.	26.	Father-in-law / Mother-in-law — Husband's mother.	Kōn.
	(younger)	Pō.	27.	Wife's brother	Dè.
11.	Father's sister's child	Wai-i-hpan : wa-i-me.	28.	Wife's sister	Wai-i-hpan.
12.	Mother's brother	Pō dang : pō dyat.	29.	Husband's brother	Wa-i-me.
13.	Mother's brother's wife	Kōn pō.	30.	Husband's sister	Pi-kwi: nawng kwi.
14.	Mother's brother's child	Wai-i-wa.			
15.	Mother's sister	De.	31.	Wife's sister's husband	Pi-kwi: nawng kwe.
16.	Mother's sister's husband	An.	32.	Husband's brother's wife	De.
17.	Mother's sister's child	Kawn De.	33.	Son's wife's parents	De.

1.	Son	Kawn-i-me.	15.	Grand child — Son's son (m.s.)	Sū.
2.	Daughter	Kawn-i-hpan.	16.	Grand child — Son's son (w.s.)	Sū.
3.	Younger brother (m.s.)	Wai-i-mè.	17.	Grand child — Daughter's son (m.s.)	Sū.
4.	Younger sister (w.s.)	Wai-i-hpan.			
5.	Brother (w.s.) Elder / Younger	Wai / Wa i-me.	18.	Grand child — Daughter's son (w.s.)	Sū.
6.	Brother's child (m.s.)	Kwan dyat.	19.	Wife	I-hpan.
7.	Husband's mother's child.	Wai: wa.	20.	Daughter-in-law / Son-in-law — Daughter's husband (m.s.).	Luk-hkwè.
8.	Brother's child (w.s.)	Kōn dyat.	21.	Daughter-in-law / Son-in-law — Daughter's husband (w.s.).	Luk-hkwè.
9.	Wife's brother's child	Kōn dyat.	22.	Daughter-in-law / Son-in-law — Son's wife (m.s.)	Luk paü.
11.	Sister's child (m.s.)	Kōn dyat.			
12.	Husband's sister's child	Kōn dyat.	23.	Daughter-in-law / Son-in-law — Son's wife (w.s.)	Luk paü.
13.	Sister's child (w.s.)	Kōn dyat.	24.	Sister's husband (m.s.)	Pi-hkwe.
14.	Wife's sister's child	Kōn dyat.	25.	Sister's husband (w.s.)	Naung hkwe.
			26.	Brother's wife (m.s.)	Dè.
			27.	Brother's wife (w.s.)	Naung pān.

(m.s.)=Men Speaking. (w.s.)=Women Speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Palaung: *Maonoi*.

1.	Father	Gun.
2.	Mother	Mè.
3.	Elder brother (m. s.). ...	Wai.
4.	Elder sister (w. s.) ..	Wai-i-hpan.
5.	Elder / Younger } Sister (m. s.). { Wai / Wa } i-hpan.	
6.	Father's brother ...	Eu.
7.	Father's brother's wife...	Pa-en.
8.	Father's brother's child	Wai.
9.	Father's sister ...	Gan.
10.	Father's sister's husband	Hpŏ.
11.	Father's sister's child .	Kawn hpŏ.
12.	Mother's brother ...	Hpŏdang: hpŏ dyat.
13.	Mother's brother's wife	Hkaun hpŏ.
14.	Mother's brother's child	Wai-i-wa.
15.	Mother's sister ...	Tè.
16.	Mother's sister's husband	Gun-en.
17.	Mother's sister's child ...	Kawn tè.
18.	Grand father. Father's father	Htè.
19.	Grand mother. Father's mother	Yi.
20.	Grand father. Mother's father	Htè.
21.	Grand mother. Mother's mother	Yi.
22.	Husband	I-mai.
23.	Father-in-law. Wife's father	Hpŏ.
24.	Mother-in-law. Wife's mother	Gan.
25.	Father-in-law. Husband's father	Hpŏ.
26.	Mother-in-law. Husband's mother.	Gan.
27.	Wife's brother	I-a.
28.	Wife's sister ...	Wai-i-hpan.
29	Husband's brother ...	Gun-en.
30.	Husband's sister ...	Gan.
31.	Wife's sister's husband	Hpŏ.
32.	Husband's brother's wife.	Hpa-hka.
33.	Son's wife's parents ...	Hpŏ.

1.	Son	Hkawn-i-mai.
2.	Daughter	Hkawn-i-hpan.
3.	Younger brother (m. s.)	Wai-i-mai.
4.	Younger sister (w. s.) ...	We-i-hpan.
5.	Brother (w. s.) / Elder / Younger ...	Wai / We -i-mai.
6.	Brother's child (m. s.) ...	Hkawn-i-wai.
7.	Husband's mother's child.	Gau.
8.	Brother's child (w. s.) ...	Those questioned were unable to give different terms for these relationships, prefixing "hkawn" to name for parent only.
9.	Wife's brother's child ...	
10.	Sister's child (m. s.) ...	
11.	Husband's sister's child	
12.	Sister's child (w. s.) ...	Hkawn dyat.
13.	Wife's sister's child ...	Hkawn dyat.
14.	Grand child. Son's son (m. s.) ...	Sa.
15.	Grand child. Son's son (w. s.) ...	Sa.
16.	Grand child. Daughter's son (m. s.).	Sa.
17.	Grand child. Daughter's son (w. s.).	Sa.
18.	Wife	I-hpan.
19.	Son-in-law. Daughter's husband (m. s.).	E-a.
20.	Son-in-law. Daughter's husband (w. s.).	E a.
21.	Daughter-in-law. Son's wife (m. s.)	Ao.
22.	Daughter-in-law. Son's wife (w. s.)	Ao.
23.	Sister's husband (m. s.).	E-a.
24.	Sister's husband (w. s.).	E-a.
25.	Brother's wife (m. s.) .	Ao.
26.	Brother's wife (w. s.) ...	Ao.

(m. s.) = Men speaking. (w. s.) = Women speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Palaung: Raokying.

1.	Father	Gun.
2.	Mother	Ma.
3.	Elder brother (m. s.) ..	I-sat-o.
4.	Elder sister (w. s.) ...	I-sat-i-hpan.
5.	{Elder / Younger} Sister (m. s.).	{I-sat / Wai} -i-hpan.
6.	Father's brother ...	Wi-au-o.
7.	Father's brother's wife...	Ma-au-o.
8.	Father's brother's child	Kawn wi-au-o
9.	Father's sister ...	Gau-o.
10.	Father's sister's husband	Hpŏ-o.
11.	Father's sister's child ...	Gawn kan-o.
12.	Mother's brother ...	Kawn i-sat-o.
13.	Mother's brother's wife	Kawn hpŏ.
14.	Mother's brother's child	Wai-i-wa.
15.	Mother's sister ...	Tè.
16.	Mother's sister's husband	Gan-o.
17.	Mother's sister's child ...	Kawn te.
18.	Grand father. Grand mother. Father's father	Hta.
19.	Grand father. Grand mother. Father's mother	Ya.
20.	Grand father. Grand mother. Mother's father	Hka-o.
21.	Grand father. Grand mother. Mother's mother	Yaŭ.
22.	Husband	I-mai-o.
23.	Father-in-law. Mother-in-law. Wife's father ..	Hpŏ-o.
24.	Father-in-law. Mother-in-law. Wife's mother ...	Gan-o.
25.	Father-in-law. Mother-in-law. Husband's father	Hpŏ-o.
26.	Father-in-law. Mother-in-law. Husband's mother.	Gan-o (?)
27.	Father-in-law. Mother-in-law. Wife's brother...	Gan-o.
28.	Wife's sister ...	Ma-tai-o.
29.	Husband's brother ...	Hpŏ-o.
30.	Husband's sister ...	Gan-o.
31.	Wife's sister's husband	Hpŏ.
32.	Husband's brother's wife	Gan-o.
33.	Son's wife's parents ...	Hpŏ.

1.	Son ...	Kawn-i-mai.
2.	Daughter ...	Kawn-i-hpan.
3.	Younger brother (m.s.)	Wā-o.
4.	Younger sister (w.s.)	Wa-i-hpan.
5.	Brother (w.s.) {Elder ... / Younger ...}	I-sat-o. / I-sat-i-mai.
6.	Brother's child (m.s.)	Hlau-o.
7.	Husband's mother's child.	Gawn.
8.	Brother's child (w.s.)	Gawn Kan-o.
9.	Wife's brother's child	Gawn Kan-o.
10.	Sister's child (m.s.)	Gawn Kan-o.
11.	Husband's sister's child.	Gawn-wa-thai-o
12.	Sister's child (w.s.)...	Kawn-wa-o.
13.	Wife's sister's child	Kawn wa-thai-o.
14.	Grand child. Son's son (m.s.)	Kawn kawn-o.
15.	Grand child. Son's son (w.s.)	Kawn kawn-o.
16.	Grand child. Daughter's son (m.s.)	Kawn kawn-o.
17.	Grand child. Daughter's son (w.s.)	Kawn kawn-o.
18.	Wife	I-hpan-o.
19.	Son-in-law. Daughter-in-law. Daughter's husband (m.s.)	E-a.
20.	Son-in-law. Daughter-in-law. Daughter's husband (w.s.)	E-a.
21.	Son-in-law. Daughter-in-law. Son's wife (m.s.)	Ao.
22.	Son-in-law. Daughter-in-law. Son's wife (w.s.)	Ao.
23.	Sister's husband (m.s.)	E-a-o.
24.	Sister's husband (w.s.)	E-a-o.
25.	Brother's wife (m.s.)	Ma-an-o.
26.	Brother's wife (w.s.)	Gan-o.

(m. s.) = Man speaking. (w. s.) = Woman speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Kachin : Lahkawng.

1.	Father	Awa.
2.	Mother	Aun.
3.	Elder brother (m.s.) ...	Hpu-ba.
4.	Elder sister (w.s.) ...	A-wa.
5.	{Elder / Younger} Sister (m. s.)	Ka-na. / Ka-naw.
6.	Father's brother ...	Wa-di.
7.	Father's brother's wife	A-ni.
8.	Father's brother's child	Hpi.
9.	Father's sister ...	Naiwè.
10.	Father's sister's husband	Tsa.
11.	Father's sister's child...	Ani.
12.	Mother's brother ...	A-tung.
13.	Mother's brother's wife	Ni-ba.
14.	Mother's brother's child	Ngai-sha.
15.	Mother's sister ...	Na-tung.
16.	Mother's sister's husband.	Kao.
17.	Mother's sister's child	Nhtoi.
18.	Grand father. Grand mother. — Father's father.	Ji hkai.
19.	Grand father. Grand mother. — Father's mother.	A-woi.
20.	Grand father. Grand mother. — Mother's father.	Ji dwi.
21.	Grand father. Grand mother. — Mother's mother.	A-woi.
22.	Husband	Mdu-wa.
23.	Father-in-law. Mother-in-law. — Wife's father.	Atsu.
24.	Father-in-law. Mother-in-law. — Wife's mother.	Ni.
25.	Father-in-law. Mother-in-law. — Husband's father.	Aji.
26.	Father-in-law. Mother-in-law. — Husband's mother.	Moi.
27.	Wife's brother ...	Rat.
28.	Wife's sister ...	Ngai-nam.
29.	Husband's brother ...	Apo.
30.	Husband's sister ...	Ngainao.
31.	Wife's sister's husband	Ngaishu.
32.	Husband's brother's wife	Kao.
33.	Son's wife's parents ...	Ngainao.

1.	Son	La kasha.
2.	Daughter	Num kasha.
3.	Younger brother (m.s.)	Nan.
4.	Younger sister (w.s.) ...	Han.
5.	Brother (w.s.) {Elder / Younger}	Hpuba. / Nan.
6.	Brother's child (m.s.) ...	Sha.
7.	Husband's mother's child.	Tsa.
8.	Brother's child (w.s.) ...	Sha.
9.	Wife's brother's child...	Sha Arat.
10.	Sister's child (m.s.) ...	Nai-kri.
11.	Husband's sister's child	Nai-kri.
12.	Sister's child (w.s.) ...	Nai-kri.
13.	Wife's sister's child ...	Ngai-nam.
14.	Grandchild. — Son's son (m.s.)	Shu.
15.	Grandchild. — Son's son (w.s.)	Shu.
16.	Grandchild. — Daughter's son (m.s.)	Shu.
17.	Grandchild. — Daughter's son (w.s.)	Shu.
18.	Wife	Mdu jan.
19.	Son-in-law. Daughter-in-law — Daughter's husband (m.s.)	Naikri.
20.	Son-in-law. Daughter-in-law — Daughter's husband (w.s.)	Naikri.
21.	Son-in-law. Daughter-in-law — Son's wife (m.s.)	Ngainaw.
22.	Son-in-law. Daughter-in-law — Son's wife (w.s.)	Ngainaw.
23.	Sister's husband (m.s.)	Ago.
24.	Sister's husband (w.s.)	Ago.
25.	Brother's wife (m.s.) ...	Arat.
26.	Brother's wife (w.s.) ...	Arat.

(m. s.)=Man speaking. (w. s.)=Woman speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Palaung : Humai.

1.	Father	Kun.	18.	Grand father. Grand mother. — Father's father.	Hta.
2.	Mother	Ma.	19.	Grand father. Grand mother. — Father's mother.	Ya.
3.	Elder brother (m.s.) ..	Pi-ao.	20.	Grand father. Grand mother. — Mother's father.	Hta.
4.	Elder sister (w. s.) ...	Pi-i-hpan.	21.	Grand father. Grand mother. — Mother's mother.	Ya.
5.	Elder / Younger Sister (m.s.)	Pê-i-hpan. Wa.			
6.	Father's brother ...	(Elder) Kun dang (Younger) Kun dè.	22.	Husband	I-mai-ao.
7.	Father's brother's wife	(Elder) Ma dang (Younger) Ma de.	23.	Father-in-law. Mother-in-law. — Wife's father.	Hpè-o-ao.
8.	Father's brother's child	Pi.	24.	Father-in-law. Mother-in-law. — Wife's mother.	Kan-ao.
9.	Father's sister ...	(Elder) Ma dang Younger) Ma de.	25.	Father-in-law. Mother-in-law. — Husband's father.	Hpè-o-ao.
10.	Father's sister's husband	(Elder) Kun dang (Younger) Kun de.	26.	Father-in-law. Mother-in-law. — Husband's mother.	Kan-ao.
11.	Father's sister's child ...	Pi.	27.	Wife's brother ...	Hpi-ao.
12.	Mother's brother ...	(Elder) Kun dang (Younger) Kun dè.	28.	Wife's sister ...	Wa-i-hpan.
13.	Mother's brother's wife	Ai-ao.	29.	Husband's brother ..	Yŭk-ao.
14.	Mother's brother's child.	Pi.	30.	Husband's sister ...	(Elder) Hpi-ao Wa (Younger.
15.	Mother's sister ...	Pi-ao.	31.	Wife's sister's husband	Yŭk-ao.
16.	Mother's sister's husband.	Kan.	32.	Husband's brother's wife	Nawng Koiao.
17.	Mother's sister's child...	Pi.	33.	Son's wife's parents ...	Hpè-o-pè.

1.	Son	Kawn-i-mai.	14.	Grand child. — Son's son (m. s.)	Hlan-ao.
2.	Daughter... ...	Kawn-i-hpan.	15.	Grand child. — Son's son (w. s.)	Hlan-ao.
3.	Younger brother (m.s.)	Wa-ao.	16.	Grand child. — Daughter's son (m. s.)	Hlan-ao.
4.	Younger sister(w. s.)...	Wa-i-hpan.	17.	Grand child. — Daughter's son (w. s.)	Hlan-ao.
5.	Brother (w. s.) Elder ... / Younger...	Pi-ao. Wa-ao.	18.	Wife	I-mai-hpan.
6.	Brother's child (m. s.)...	Hlan-ao.	19.	Son-in-law. Daughter-in-law. — Daughter's husband (m. s.).	Koi-ao.
7.	Husband's mother's child.	Kawn.	20.	Son-in-law. Daughter-in-law. — Daughter's husband (w. s.).	Koi-ao.
8.	Brother's child (w. s.)...	Pi.	21.	Son-in-law. Daughter-in-law. — Son's wife (m.s.).	Hpi-ao.
9.	Wife's brother's child...	Hlan-ao.	22.	Son-in-law. Daughter-in-law. — Son's wife (w.s.).	Hpi-ao.
10.	Sister's child (m. s.) ...	Hlan-ao.	23.	Sister's husband (m. s.)	Yŭk-ao.
11.	Husband's sister's child.	Wa-ao.	24.	Sister's husband (w. s.)	Yŭk-ao.
12.	Sister's child (w. s.) ...	Hlan-ao.	25.	Brother's wife (m. s.) ...	Ai.
13.	Wife's sister's child ...	Hlan-ao.	26.	Brother's wife (w. s.) ...	Ai.

(m. s.) = Man speaking. (w. s.) = Woman speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Yang Lam.

1.	Father	Hpa.
2.	Mother ...	Mā.
3.	Elder brother (m. s.) ...	Mè-ai.
4.	Elder sister (w. s.) ..	Mè-nang.
5.	Elder / Younger } Sister / (m. s.) ...	Mè-nang. Tè-Kanya.
6.	Father's brother ...	Tīng.
7.	Father's brother's wife.	Kūn long.
8.	Father's brother's child.	Mai.
9.	Father's sister ...	Poi.
10.	Father's sister's husband.	Poi-long.
11.	Father's sister's child...	Mai.
12.	Mother's brother ...	Paw-long.
13.	Mother's brother's wife.	Kūn-long.
14.	Mother's brother's child.	Mai.
15.	Mother's sister ...	Ma-long.
16.	Mother's sister's husband.	Paw-long.
17.	Mother's sister's child	Mai.
18.	Grand father. Grand mother. — Father's father.	Ta-awk.
19.	Grand father. Grand mother. — Father's mother.	Ya-awk.
20.	Grand father. Grand mother. — Mother's father.	Ta-nai.
21.	Grand father. Grand mother. — Mother's mother.	Ya-nai.
22.	Husband	Ka-mè.
23.	Father-in-law. Mother-in-law. — Wife's father.	Paw-è.
24.	Father-in-law. Mother-in-law. — Wife's mother.	Kun-e.
25.	Father-in-law. Mother-in-law. — Husband's father.	Paw-e.
26.	Father-in-law. Mother-in-law. — Husband's mother.	Kun-e.
27.	Wife's brother ...	Mè-ai.
28.	Wife's sister ..	Mè-nang.
29.	Husband's brother ...	Mè-ai.
30.	Husband's sister ...	Me-dawng.
31.	Wife's sister's husband	Kaw-e.
32.	Husband's brother's wife	Me-dawng.
33.	Son's wife's parents ...	Ta-dawng.

1.	Son	Kwan karawè.
2.	Daughter ...	Kwan ka-ny.
3.	Younger brother (m. s.).	Tè kara-mè.a
4.	Younger sister (w. s.)	Te ka-nya.
5.	Brother (w. s.) Elder ... / Younger	Mè-ai-è. Te-kara-mè.
6.	Brother's child (m. s.)	Plī.
7.	Husband's mother's child.	Twè.
8.	Brother's child (w. s.)	Pli.
9.	Wife's brother's child	Pli.
10.	Sister's child (m. s.).	Pli.
11.	Husband's sister's child.	Pli.
12.	Sister's child (w. s.).	Pli.
13.	Wife's sister's child...	Pli.
14.	Grand child. — Son's son (m. s.)	Pli.
15.	Grand child. — Son's son (w. s.)	Pli.
16.	Grand child. — Daughter's (m. s.).	Pli.
17.	Grand child. — Daughter's son (w. s.).	Pli.
18.	Wife	Ka-ny-a.
19	Son-in-law. Daughter-in-law. — Daughter's husband. (m. s.).	Ka-mawn.
20	Son-in-law. Daughter-in-law. — Daughter's husband. (w. s.).	Ka-mawn.
21	Son-in-law. Daughter-in-law. — Son's wife (m. s.).	Ka-mūn.
22	Son-in-law. Daughter-in-law. — Son's wife (w. s.).	Ka-mūn.
23.	Sister's husband (m. s.).	Kaw-è.
24.	Sister's husband (w. s.).	Kaw-è.
25.	Brother's wife (m. s.).	Mawm-è.
26.	Brother's wife (w. s.).	Mawm-è.

(m. s.) Man speaking. (w. s.)=Woman speaking.

APPENDIX B-III—continued.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Taungthu.

1.	Father	Hpa.
2.	Mother	Me.
3.	Elder brother (m. s.)	We hko.
4.	Elder sister (w. s.) ..	We mu.
5.	Elder / Younger Sister (m. s.)	We / Hpû Mu.
6.	Father's brother ...	(Elder) Lüng (Younger) Upānang.
7.	Father's brother's wife	Mao nang.
8.	Father's brother's child.	Lī.
9.	Father's sister .	Me Tān.
10.	Father's sister's husband.	Lung.
11.	Father's sister's child	Lī.
12.	Mother's brother ...	(Elder) Lī long (Younger) Hpa yang.
13.	Mother's sister's husband.	Lī pā.
14.	Grand father. Grand mother. — Father's father.	Hpā hprā.
15.	Father's mother.	Mè taru.
16.	Mother's mother.	Mè hpra.
17.	Mother's mother.	Me taru.
18.	Husband ...	Ka wā.
19.	Father-in-law. Mother-in-law. — Wife's father	Hpā.
20.	Wife's mother.	Mè.
21.	Husband's father.	Hpā.
22.	Husband's mother.	Mè.
23.	Wife's brother ..	Wè.
24.	Wife's sister ...	Wè.
25.	Husband's brother ...	Wè.
26.	Husband's sister ...	Wè.
27.	Wife's sister's husband.	Wè.
28.	Husband's brother's wife.	Wè.
29.	Son's wife's parents	Pu long (male) Hpi long (female).

1.	Son	Po hko.
2.	Daughter ...	Po mu.
3.	Younger brother (m. s.).	Hpu hko.
4.	Younger sister (w. s.).	Hpu mu.
5.	Brother (w. s.) Elder ... / Younger	We / Hpu hko.
6.	Brother's child (m. s.)	Lī.
7.	Husband's mother's child.	Wè.
8.	Wife's brother's child	Li.
9.	Sister's child (m. s.)...	Li.
10.	Husband's sister's child.	Li.
11.	Grand child. — Son's son (m. s.)	Li.
12	Son's son (w. s.)	Li.
13.	Daughter's son (m. s.).	Li.
14	Daughter's son (w. s.).	Li.
15.	Wife	Karm mā.
16.	Son-in-law. Daughter-in-law. — Daughter's husband (m. s.).	Ma.
17.	Daughter's husband (w. s.).	Ma.
18.	Son's wife (m. s.).	Pā nein.
19.	Son's wife (w. s.).	Pā nein.
20.	Sister's husband (m. s.).	Hpā taru.
21.	Sister's husband (m. s.).	Hpā taru.
22.	Brother's wife (m. s.)	Mè taru.
23.	Brother's wife (w. s.).	Mè taru.

(m. s.) = Man speaking. (w. s.) = Woman speaking.

APPENDIX B-III—concluded.

TERMS OF RELATIONSHIP IN THE DIALECTS OF HSIPAW STATE, NORTHERN SHAN STATES.

Lihsaw.

1.	Father	Ba-ba.	15.	Grand father. Grand mother. — Father's father	Ā-pā.
2.	Mother	Ma-ma.	16.	Father's mother	A-za.
3.	Elder brother (m.s.)	Ko-ko.	17.	Mother's father	A-pā.
4.	Elder sister (w.s.)	Hsi-sè.	18.	Mother's mother	A-hpo.
5.	Elder / Younger — Sister (m.s)	Hsi-se. / Ng-yi-ma.	19	Husband	Za-gu.
6.	Father's brother (Elder)	U hpā	20.	Father-in-law. Mother-in-law. — Wife's father	Ba-ba.
	(Younger)	Wo-wo.	21.	Wife's mother	Ma-ma.
7.	Father's brother's wife	U-ma.	22.	Husband's father	Ba-ba.
8.	Father's brother's child	Gwa-saw.	23.	Husband's mother.	Ma-ma.
9.	Father's sister	A-ug-yi.	24.	Wife's brother	Ma-la.
10.	Father's sister's husband	Vī-vī.	25.	Wife's sister	Hsi-sè.
11.	Father's sister's child	Gwa-saw.	26.	Husband's brother (Elder)	Ko-ko.
12.	Mother's brother	Vī-vī.		(Younger)	ng-yi-za.
13.	Mother's brother's child	Za-du.	27.	Husband's sister	Hsi-sè.
14.	Mother's sister's husband	Vī-vī.	28.	Wife's sister's husband	Chi-fi.
			29.	Husband's brother's wife	Hsi-sè.
			30.	Son's wife's parents	Hu-hpa : hu-ma.

1.	Son	A-ta-fa.	10.	Grand child — Son's son (m.s.)	Li-pā.
2.	Daughter	A-myi-za.	11.	Son's son (w.s.)	Li-pā.
3.	Younger brother (m.s.)	Ng-yi-za.	12.	Daughter's son (m.s.)	Li-pā.
4.	Younger sister (w.s.)	Ng-yi-ma.	13.	Daughter's son (w.s.).	Li-pā.
5.	Brother (w.s.) Elder / Younger	Ko-ko. / Ng-yi-za.	14.	Wife	Za-mea.
6.	Husband's mother's child	Ng-yi.	15.	Son-in-law Daughter-in-law — Daughter's husband (m.s.).	Myé.
7.	Wife's brother's child	Li-pā.	16.	Daughter's husband (w.s.).	Myé.
8.	Sister's child (m.s.)	Sa-za.	17.	Son's wife (m.s)	Si-ma.
			18.	Son's wife (w.s.)	Si-ma.
9.	Wife's sister's child	Li-pā.	19.	Sister's husband (m.s.)	Chi-fi.
			20.	Sister's husband (w.s.)	Chi-fi.
			21.	Brother's wife (m.s.)	Mā-la.
			22.	Brother's wife (w.s)	Mā-la.

(m.s.) = Man speaking. (w.s.) = Woman speaking.

APPENDIX B-V.

Terms of Relationship in the Dialects of the South Hsenwi State, Northern Shan States.

Terms of Relationship.	Myen.	Lisaw.	Pale.	Wa.	Yang Tam.	Muhso.
Father	Ahpan	Baba	Boh	Hting	Ya	Ahpan.
Mother	Tè	Mama	Guen E Mai	Kwan rameh	Kwan Oh	Tè.
Elder brother (m.s.)	Ah Vi	Koko	Guen E Bun	Kwan Rabun	Kwan Ka Nya	Ah Vi.
Elder sister (m.s.)	Ah Vi	Chi Chey	Gwi An	Pu rameh; Po rameh	Twey	Ah Vi.
Elder sister (w.s.)	Ah Vi	Chi Chey	Vai E Bun	Pu rabun; Po rabun	Tey	Ah Vi.
Younger sister (m.s.)	Nga Ni-Mau	Ni Ma	Gwi An	Et or Ek	Mai	Nga Ni Mau.
Father's brother	Ahpan Vi Pa	U Hpa	Vai E Bun	Pu rameh; Po rameh	Twey	Ahpun Vi Pa.
Father's brother's wife	Nga Ni Vi Ma	U Ma	E Kat E Bun	Kwan Hsan	Plea	Nga Ni Vi Ma.
Father's brother's child	Nga Ni Vi Pa Ya	Ladu	Gun	Et Kwe (male) O Kwe (female).	Twey	Nga Ni Vi Pa Ya.
Father's sister	Ah Vi Ya	Ni Nya	Gun Teak	Kawn Hsan	Plea	Ah Vi Ya.
Father's sister's husband	Ah Wi Ma Pa Man Ya	U Zur	Madaw	Kawn Po	Plea	Ah Vi Ma Pa Man Ya.
Father's sister's child	Ah Ni Vi Pa Ya	Ladu	Gun	Kawn Hsan	Plea	Ah Ni Vi Pa Ya.
Mother's brother	Nga Vi Pan Ho E Tari	U Zur	Gun	Kawn Po	Plea	Nga Vi Pan Ho E Tari
Mother's brother's wife	Nga Vi Pa Mi Ma	Nu Ma	Gun	Kawn Hsan	Plea	Nga Vi Pa Mi Ma.
Mother's brother's child	Ah Ni Vi Pa Ya	Nu Zur	Gun	Kawn Hsan	Plea	Ah Ni Vi Pa Ya.
Mother's sister	Nga Vi Pan Mo E Tari	O Ma	Gun An	Kawn Hsan	Plea	Nga Vi Pan Ho E Tari
Mother's sister's husband	Ah Vi Ma Pa Man Ya	O Hpa	Gun An	Kawn Hsan	Plea	Ah Vi Ma Pa Man Ya.
Mother's sister's child	Ah Ni Vi Pa Ya	Ladu	Guen Teah	Kawn Hsan	Plea	Ah Ni Vi Pa Ya.
Father's father	Ahpu	Ah Hpa	Guen Teah	Kawn Hsan	Plea	Ahpu.
Father's mother	Ahpi	Ah Zur	E Bun Yè	Ramoin	Ka Nga	Ahpi.
Mother's father	Ahpu	Ah Hpi	Boh	Kawn Hpa Rameh	Teing	Ahpu.
Mother's mother	Ahpi	Ah Hpi	Poh	Kawn Hpa Rameh	Teing	Ahpi.
Husband	Ah Po Ma	Nu Zur	Aw	Kawn Hpa Rabun	Mawm	Ah Po Maw.
Wife's father	Ahpu	Baba	Aw	Kawn Hpa Rabun	Mawm	Ahpu.
Wife's mother	Ahpi	Mama	E-Ah	Et Kwe	Gaw	Ahpi.
Husband's father	Ahpu	Si Na	E-Ah	Et Kwe	Gaw	Ahpu.
Husband's mother	Ahpi	Si Na	Aw	O Kwe	Mawm	Ahpi.
Wife's brother	Nga Vi Pan	Koko	Aw	O Kwe	Mawn	Nga Vi Pan.
Wife's sister	Nga Vi Pan Vi Ma	Chi Chey	Hlan	Kawn hsan rabun	Ya	Nga Vi Pan, Vi Ma.
Husband's brother	Nga Vi Nga Po Maw	Koko	Hlan	Kawn hsan rabun	Ya	Nga Vi Nga Po Maw.
Husband's sister	Nga Vi Nga Po Maw	Chi Chey	Guen	Kōin	Pa	Nga Vi Nga Po Maw.
Wife's sister's husband	Nga Vi Nga Po Maw	Chi Fu	Ma	Mōa	Ma	Nga Vi Nga Po Maw.
Husband's brother's wife	Nga Vi Pa Vi Ma	Ma La	E Kat	Et or Ek	Mai	Nga Vi Pa Vi Ma.
Son's wife's parents	Nga Pu	Pu Hpa	E Kat or E Buen	O	Mai	Nga Pu.
Son	Nga Ya Pa	Abyu Ya	E Kat E Mai	O	Mai	Nga Ya Pa.
Daughter	Nga Ya Min	Ah Mi	E Mai Vai E Buen	Pu Rabun	Thay	Nga Ya Mi.
Younger brother (m.s.)	Nga Ni	Nu Zur	Guen Teah	Hting (elder); Koin Ai (Younger).	Leing	Nga Ni.
Younger sister (w.s.)	Nga Ni Ma	Ni Ma	Ma Dan	Hting	Ya	Nga Ni Ma.
Elder brother (w.s.)	Ah Vi	Koko	Guen Gon Teah	Kawn Po	Mai	Ah Vi.
Younger brother (w.s.)	Nga Ni	Nu Zur	Guen Vai E Buen	Hting (elder); Pao Rabun (Younger).	Poi	Nga Ni.
Brother's child (m,s.)	Nga Vi Ya Mi	Ladu	Ouen Ni Mai Un	Hting	Leing	Nga Vi Ya Mi.
Husband's mother's child	Nga Ni	Nu Zur	Guen Gon E Buen Teah	Kawn Po	Mai	Nga Ni.
Brother's child (w.s.)	Nga Vi Ya Mi	Ladu	Ma Va An	Hting (elder) Pao (Younger).	Mawm	Nga Vi Ya Mi.
Wife's brother's child	Nga Vi Pa Ya	Nu Zur	Ma Va E Buen Un	Hting	Leing	Nga Vi Pa Ya.
Sister's child (m.s.)	Nga yi Pa Ya	Ladu	Ma Va Teah	Kawn Po	Mai	Nga Vi Pa Ya.
Husband's sister's child	Nga Vi Pa Ya	Ladu	Ma Va E Buen	Mi Yi (elder) Mi-I (Younger).	Ya	Nga Vi Pa Ya.
Sister's child (w.s.)	Nga Vi Pa Ya	Ladu	Ma Va E Mai Un	Hting	Leing	Nga Vi Pa Ya.
Wife's sister's child	Nga Vi Pa Ya	Ladu	Ma Va Teah	Kawn Po	Mai	Nga Vi Pa Ya.
Son's son (m.s.)	Nga E Ti Vi Pa Ya	Ni Hpa	Guen Un	Ta	Ta	Nga E Ti Vi Pa Ya.
Son's son (w.s.)	Nga E Ti Vi Pa Ya	Ni Hpa	Ma Un	Yia	Ya	Nga E Ti Vi Pa Ya.
Daughter's son (m.s.)	Nga E Ti Vi Pa Ya	Ni Hpa	Guen Ma	Ta	Ya	Nga E Ti Vi Pa Ya.
Daughter's son (w.s.)	Nga E Ti Vi Pa Ya	Ni Hpa	Ya	Yia	Ya	Nga E Ti Vi Pa Ya.
Wife	Nga Maw	Nu	E Mai	Kraw	Ta	Nga Maw.
Daughter's husband (m,s.)	Nga Vi Pai Ya Mi Ah Pa Maw.	Myur	Boh	Hting; koin Ninawn	Ta Ni	Nga Vi Pai Ya Mi Ah Pa Maw.
Daughter's husband (w.s.)	Nga Vi Pai Ya Mi Ah Pa Maw.	Myur	Gun	Hting; Moa	Ya Ni	Nga Vi Pai Ya Mi Ah Pa Maw.
Son's wife (m.s.)	Nga Ku Ma	Si Ma	Boh	Hting, Kōin Ninawn	Pa	Nga Ku Ma.
Son's wife (w.s.)	Nga Ku Ma	Si Ma	Gun	Hting; Moa	Ya	Nga Ku Ma.
Sister's husband (m.s.)	Nga Vi Pa Ma	Chi Fu	Ma Daw	Et Kwe (elder); Po Rameh (younger).	Mai	Nga Vi Pa Maw.
Sister's husband (w.s.)	Nga Vi Pa Maw	Chi Fu	Ma An	O Kwe (elder); Po Rabun (younger).	Mai	Nga Vi Pa Maw.
Brother's wife (m.s.)	Nga Vi Pa Maw	Ma La	Guen An	Et Kwe (elder); Po Rameh (younger).	Mai	Nga Vi Pa Maw.
Brother's wife (w.s)	Nga Vi Pa Maw	Ma La	Gun	O Kwe (elder); Po Rabun (younger).	Mai	Nga Vi Pa Maw.
Son's daughter	Nga Vi Pa Ya Mi Ah Pa Maw.	Ni Ma	Boh	Et Kwe (elder); Po Rameh (younger).	Kaw	Nga Vi Pa Ya Mi Ah Pa Maw.
Daughter's daughter	Nga Vi Pa Ya Mi Ah Pa Maw.	Ni Ma	Boh	O Kwe (elder); Po Rabun (younger).	Leing	Nga Vi Pa Ya Mi Ah Pa Maw.

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-V.

List of terms of relationship in the dialects of the Karenni Subdivision of the Southern Shan States.

Terms of Relationship.	Brè.	Mano.	Padaung.	Yinbaw.	Karenni.	Yangalai.
Father	A-Hpā	Hpa	Hpā	Hpa	Hpè	A-hpa.
Son	A-hpo	Hpo (Hpa Hko).	Hpauk	Hpauk	Hpu	Hpu.
Mother	Mo-ke-i	Mo	Mong	Mong	Mo	A-mü.
Daughter	Hpu-mu	Hpo (Ma-Mo)	Hpao-hpra-mu.	Hpaukhpra-mo.	Hpu-hpre-maw.	Hpu-mon.
Elder brother (M. S.)	Hē-wè	Wè	Goi-hpré-hko	Wia-hpré-hko	Vya-hprè-hku	Hē-wè.
Younger brother (M. S.)	Hē-bu	Bu	Pu	Pu	Per	Ke-pauk.
Elder sister (M. S.)	Hē-wè-mā-mu	Wè-pa-mo	Pu Goi	Goi	Vya	Ka-ve-mon.
Elder sister (W. S.)	He-bu-mā-hkaw.	Wè-pa-mo	Pu Goi	Wai	Vya	Ka-ve-mon.
Younger sister (M. S.)	He-bu-mā-mu	Bu-a-mo	Pu-hpra-mu	Pu-hprè-mo	Po-hprè-maw	Ka-ponmon.
Younger sister (W. S.)	He-bu-mā-hkaw.	Bu-pa-mo	Pu-hpra-mu	Pu-hprè-mo	Po-hprè-maw	Ka-ponmon.
Brother's child (M. S.)	Hpo-du	Hpo-du	Hpôkli	Hpaukli	Hpu-du	Hpo-du.
Brother's child (W. S.)	Hpo-du	Hpo-du	Hpôkli	Hpaukli	Hpu-du	Hpo-du.
Father's brother's wife	Mo-du	Mo-du	Sa	Sa	Mo-du	Ka-hki.
Father's brother's child	Tha-u-bu	Pu-bu	Naungbo	Naungbo	Perbu	Wônbu.
Father's sister	Mo-du	Mo-du	Sa	Sa	Mo-du	Mein.
Father sister's husband	Hpa-du	Hpa-du	Nè	Nai	Hpè-du	Maik.
Wife's brother's child			Hpôkli	Hpaukdū	Hpu-du	Ta-na.
Father's sister's child	Tha-u-bu	Pu-bu	Hpôkli	Hpaukdu	Hpu-dū	Hpo-du.
Mother's brother	Hpa-du	Hpa-du	Nè	Sa	Hpè-dū	Ka-maik.
Sister's child (M. S.)	Hpo-du	Hpo-du	Hpôkli	Hpaukdu	Hpu-dū	Hpo-du.
Mother's brother's wife	Hki	Mo du	Nè	Nai	Na	Ka-mein.
Husband's sister's child	Hpu-du	Hpo-du	Hpôkli	Hpaukdu	Hpu-du	Hpo-du.
Mother's sister	Mo-du	Mo-du	Sa	Sa	Mo-du	Mein.
Sister's child (W. S.)	Hpo-du	Hpo-du	Hpôkli	Hpaukdu	Hpu-du	Hpo-du.
Mother's sister's husband	Hpè-dū	Hpa-du	Ma-hkôk	Ma-hkôk	Né	Maik.
Wife's sister's child		Hpo-du	Hpôkli	Hpaukdu	Hpu-du	Hpo-du.
Mother's sister's child	Tha-u-bu	Pu-bu	Hpôkli	Hdaukdu	Hpu-du	Hpo-du.
Father's father	A-hpi	Hpū	Hpu	Hpu	Hper	Hpauk.
Son's son (M. S.)	A-lī	Lī	Lī	Lī	Ler	Lai.
Son's son (W. S.)	A-lī	Lī	Lī	Lī	Ler	Lai.
Mother's father	A-hpi	Hpu	Hpu	Hpu	Hper	Hpauk.
Daughter's son (M. S.)	A-lī	Lī	Hpôklī	Li	Ler	Lū.
Daughter's son (W. S.)	A-lī	Lī	Hpôkli	Li	Ler	Lū.
Mother's mother	A-hpi-ma-mu	Hpi	Hpé	Hpè	Hper	A-hpaik.
Husband	Hē-wo	Wo	Gwā	Gwā	Vyè	Ka-va.
Wife	Mā	Ma	Mā	Mā	Mè	Ka-ma.
Wife's father	Mū-pra	Mi-pwa	Pra	Pra	Hprè	Ka-pra.
Daughter's husband (M. S.)	Maw	Maw	Ma-hko	Ma-hko	Nè	Ma.
Wife's mother	Mū-pra	Mi-pwa	Pra	Pra	Hprè	Ka-pra.
Daughter's husband (W. S.)	Maw	Maw	Ma-hko	Ma-hko	Ne	Ma.
Husband's father	Mū-pra	Mi-paw	Pra	Pra	A-hpro	Ka-pra.
Son's wife (M. S.)	Dè	Dè	Di	Di	Dya	Ka-diak.
Son's wife (W. S.)	Dè	Dè	Di	Di	Dya	Ka-diak
Husband's mother	Mū-pra	Mi-pwa	Pra	Pra	Hprè	Ka-pra.
Wife's brother	Dē	Nè	Nai	Nai	Nā	Nein.
Sister's husband (M. S.)	Dē	Nè	Nai	Nai	Nā	Hki.
Sister's husband (W. S.)	De	Hki	Nai	Nai	Nā	Hki
Wife's sister	Chī	Hki	Nai	Nai	Chi	Ta-nein.
Husband's brother	Chī	Hki	Nai	Nai	Chi	Hki.
Brother's wife (M. S.)	Chī	Hki	Nai	Shan	Chi	Hki.
Brother's wife (W. S.)	Ka-na	Ka-na	Ka-nā	Shan	Chi	Tanein.
Wife's sister's husband	Ka-na	Ka-nē	Ka-nā	Shan	Ka-nā	Ta-na.
Husband's brother's wife	Ka-na	Ka-na	Ka-nā	Nein	Ka-nā	Ta-yauk.
Son's wife's parents	Hpo-maw	Ka-maw	Ko-myè	Ka-maw	Hku-mē	Ta-ma.

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-VI.

TERMS OF RELATIONSHIP IN DIALECTS OF THE SOUTHERN SHAN STATES.

English.	Shan.	Yang Wan Kun.	Yang Hsek.	Yang Lam.	Paungthu.
Father	Paw, U	Pā	Pā	Pa	Hpa.
Mother	Mè	Mā	M	Ma	Mū.
Elder brother (M.S.)	Pi-Sai, Pi-Ai	Mai-Karame	Mai-Karame	Mri-Karame	Ve Hko.
Elder sister (W.S.)	Pi-Nāng	Mai-Kanya	Mai-Kanya	Mai-Kanya	Ve Mu.
Elder sister (M.S.)	Pi-Nāng	Mai-Kanya	Mai-Kanya	Mai-Kanya	Ve Mu.
Younger sister (M.S.)	Nawng Ying	Sambo, Drost	Taw Kanya	Twe Kanya	Hpu Ma.
Father's brother (elder)	Lung	Deng	Ling	Ling	Hpa Tan.
Father's brother (Younger)	Paw Ao	Deng	Ling Hsang	Paw	Hpa Nang.
Father's (elder) brother's wife	Pā	Wa'i	Wa'i	Kun	Mu Tan.
Father's (younger) brother wife	Ā	Wai	Kun	Kun	Mu Nang.
Father's brother's child	Pi	Mai	Mai	Mai	Ve.
Father's sister (elder)	Pā	Wa'i	Paw	Paw	Hpi.
Father's sister (younger)	Mè A	Kun	Wa'i	Twe	Hpi.
Father's (elder) sister's husband.	Paw Lung	Deng	Deng Hsang	Deng Hsang	Hpu.
Father's (younger) sister's husband.	Paw Na, Ao	Paw	Deng Hsang	Deng Hsang	Hpu.
Father's sister's child	Pi	Mai	Mai	Mri	Mak.
Mother's brother (elder)	Paw Lung	Deng	Deng	Deng	Hpu.
Mother's brother (younger)	Paw Na	Paw	Ling Hsang	Ling Hsang	Hpu.
Mother's brother's wife	Me Pa	Wa'i	Wa'i	Wa'i	Hpi.
Mother's brother's child	Pi	Mai	Mri	Mai	Mak.
Mother's sister (elder)	Pā	Wa'i	Kun	Kun	Mu Tan.
Mother's sister (younger)	Me Na	Wa'i	Wa'i	Wa'i	Mu Nang.
Mother's elder sister's husband	Paw Lung	Deng	Deng Hsang	Deng Hsang	Hpa Tan.
Mother's younger sister's husband	Paw Na	Paw	Paw	Paw Ē	Hpa Nang.
Mother's sister's child	Pi	Mai	Mai	Mai	Mak.
Father's father	Hking	Ta	Ta Ē	Ta Ē	Hpu.
Father's mother	Awk	Ya	Ya Ē	Ya Ē	Hpi.
Mother's father	Pu	Ta	Ta Ē	Ta Ē	Hpu.
Mother's mother	Nai	Ya	Va Ē	Ya Ē	Hpi.
Husband	Hpo	Ta-O	Kam-E-Ē	Kam-e-Ē	Wa.
Wife's father	Paw (Sao)	Pa	Paw Hsang	Paw Hsang	Hpu.
Wife's mother	Mè (Sao), Awk Nai	Ma	Kun Ē	Kun Ē	Hpi.
Husband's father	Paw (Sao)	Pa	Paw Hsang	Paw Hsang	Hpu.
Husband's mother	Mè (Sao)	Ma	Kun Ē	Kun Ē	Hpi.
Wife's brother (elder)	Pi	Mai	Mai	Mai	Mak.
Wife's brother (younger)	Nawng Sai	Hsam Bo	Twe	Twe	Hpu.
Wife's sister	Pi Nang	Mai	Mai	Mai	Mu Tan.
Husband's brother (elder)	Pi	Mai	Mai	Mai	Hpa Tan.
Husband's brother (younger)	Nawng	Hsam Bo	Twe	Twe	Hpa Nang.
Husband's sister	Pi-Nang	Mai	Mai	Mai	Ka-Ning.
Wife's (elder) sister's husband	Pe-Hkwe	Kaw	Ko Ē	Kaw Ē	Hpa Tan.
Wife's (younger) sister's husband.	Nawng Hkwe	Sambo Hkre	Twe Ē	Twe Ē	Hpu.
Husband's brother's wife	Pi-Lo	Mawm	Mawm	Mawm	Mu Tan.
Son's wife's parents (father)	Pu-Lawng	Ta'-Dawng	Ta'-Dawng	Ta'-Dawng	Mak.
Son's wife's parents (mother)	Nai-Lawng	Ya'-Dawng	Ya'-Dawng	Ya'-Dawng	Mawng Po.
Son	Luk Sai	Kawn Karame	Kwan I	Kwan Ē	Po Hko.
Daughter	Luk Ying	Kawn Kanya	Kwan Kanya	Kwan Kanya	Po Mu.
Younger brother (M.S.)	Nawng Sai	Sambo Karame.	Taw Karame	Twe	Hpu Hko,
Younger sister (W.S.)	Nawng Ying	Sambo Kanya	Taw Kanya	Twe Kanya	Hpu Mu.
Elder brother (W.S.)	Pi Ai, Pi Sai	Mai Karame	Mai Karame	Mai Karame	Ve Hko.
Younger brother (W.S.)	Nawng Sai	Sambo Karame.	Taw Karame	Twe Ē	Hpu Hko.
Brother's child (M.S.)	Lan Sai, Lan Ying.	Lan Karame	Pli-Ē	Pli Ē	Po Hko.
		Lan Kanya	Pli-Ē	Pli Ē	Po Mu.
Husband's mother's child (male).	Pi, Nawng	Mai	Mai Karame Ē	Mai KarameE	Hpatan, Hpanang
Husband's mother's child (female).	Pi, Nang, Nawng Ying.	Mai Kanya	Mai Ē	Twe E	Mutan, Munang
Brother's child (W.S.)	Lan	Lan	Pli	Twe	Po.
Wife's brother's child	Lan	Lan	Pli	Twe	Li.
Sister's child (M.S.)	Lan	Lan	Pli	Pli	Li.
Husband's sister's child	Lan	Lan	Pli	Pli	Li.
Sister's child (W.S.)	Lan	Lan	Pli	Pli	Li.
Wife's sister's child	Lan	Lan	Pli	Pli	Po.
Son's son (M.S., W.S.)	Lan	Lan	Pli	Pli	Li.
Daughter's son (M.S., W. S.)	Lan	Lan	Pli	Pli	Li.
Wife	Me	Ya-O	Kanya Ē	Kanya E	Ama.
Daughter's husband (M.S., W.S.)	Luk Hkwe	Ke-O	Kwan Ē	Kwan E	Ma.
Son's wife (M.S., W.S.)	Luk Pau	Mwe	Mwe Ē	Mawn E	Hpanam.
Elder sister's husband (M.S., W.S.).	Pi Hkwe	Kaw	Ko Ē	Kaw E	Mak.
Younger sister's husband (M.S, W.S.)	Nawng Hkwe	Sambo Hke	Hkwe Ē	Kkwe E	Mak.
Elder brother's wife (M.S., W.S.).	Pi Lo	Mawm	Mawm	Mawm	Mu Tan.
Younger brother's wife (M.S, W.S.).	Nawng Pau	Sambo Mwe	Mwe Ē	Kwan E	Mu Naung.

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-VII.

Terms of relationship in the Hkün and Lu dialects of Kengtung State of the Southern Shan States.

Father	... Paw.	Mother's father	... Twè-pu.
Mother	... Me.	Daughter's son	... Lan (M.S. & W.S.).
Elder brother (M.S.)	... Pi-sai-long.	Mother's mother	. Mè-twi (M.S. & W.S.).
Elder sister (W.S.)	... Pi-yinglong.	Husband	... Hpo. .
Elder sister (M.S.)	... Pi-ying.	Wife	... Me.
Elder brother (W.S.)	... Pi-sai.	Wife's father	... Pawme.
Father's brother	... Lung.	Daughter's husband	Luk Hkwe (M.S.).
Father's wife	... Ao.		Lukpai (W.S.).
Father's child	... Pi-sai (senior).	Wife's mother	... Me.
	Nawngsai (junior).	Husband's father	.. Paw.
Father's sister	... Pa.	Son's wife	... Lukpai (M.S. & W.S.).
Father's husband	... Lung.	Husband's mother	Paw.
Father's child	... Nawngsai (son).	Wife's brother	... Nawngsai.
	Nawng-ying (daughter).	Sister's husband	... Nawnghkwe (M.S. & W.S.).
Mother's brother	... Lung (senior).	Wife's sister	... Pi-nang.
	Na (junior).	Husband's brother	Pi-sai.
Sister's child (M.S.)	... Lan.	Brother's wife	... Pi-pai (elder brother's M. S. & W.S.).
Mother's brother's wife	Pa.		Nawngpai (younger brother's) M. & W.S.
Husband's sister's child	Lan.		
Mother's brother's child	Pi-sai (senior).		
	Nawngsai (junior).	Husband's sister	... Nawng-ying.
Mother's sister	.. Pa (senior).	Wife's sister's husband.	Pi-hkwe.
	Na (junior).		
Mother's child	... Nawngsai (son).	Husband's brother's wife	Pi-pai.
	Nawng-ying (daughter).	Son's wife's parents	Pi-sai (f), Pi-ying (m.).
Mother's husband	... Lunghkwe.	Son	... Luksai.
Wife's sister's child	... Lan.	Daughter	... Lukying.
Mother's sister's child	... Nawngsai (son).	Brother's child (W.S.)	Lansai.
	Nawng-ying (daughter).	Husband's mother's child	Lan.
Father's father	... Twè-pu.	Brother's child (W.S.)	Lan.
Son's son	... Lan (M.S. & W.S.).	Wife's brother's child	Lan.
Father's mother	... Twè-ya.		

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-VIII.

TERMS OF RELATIONSHIP IN DIALECTS OF THE NORTHERN ARAKAN DISTRICT.

English.	Mro.	Ahnu.	Chaungtha.	Kyaw.	Kami.
Father	Pa At	Pa	Ah Bah	Pa	Nga Ai.
Mother	Na We	Nu	Ah Mè	Nu	Neik.
Elder brother (M. S.)	Ya At	Ta At	Ah Ko Gree	Oo	Yike.
Elder sister (W. S.)	Ya At	Pa E	Ah Mai	Oo	Yike.
Elder / Younger sister (M. S.)	Ya At	Ah Se Co Me	Ah Mai	Oo	Yike.
	Na Pe	Loiya	Nyi Mah	Nauk	Umbai.
Father's brother	Pa At Kho	Ahkapa	Ah Bai	Pon Ngak	Nga ai mho.
Father's brother's wife	Na We Ta	Ahkape	Ah Ywai	Pid Nauk	Ah Ni To.
Father's brother's child	Na Pe	Ahsahe	Nyi	Nauk	Umbai.
Father's sister	Na E	Ahkane	Ah Ree	Ka No	Ah Nee.
Father's sister's husband	Puk Pre	Run	Ah Khan	Mrun	Prun.
Father's sister's child	Mauk Pe	Su	Yauk Pah	Ka Mway	Mouksa.
Mother's brother	Pa We	Pu	Ah Khan	Tarapu	Umpu.
Mother's brother's wife	Pa E	Pa E	Ah Ree	Tarape	Umpe.
Mother's brother's child	Ma Kon	Su	Yauk Pah	Kahway	Natsa.
Mother's sister	Na We Ta	Ne Le	Ah Ywai	Pin Ngak	Niketo.
Mother's sister's husband	Pa At Kho	Palè	Ah Bai	Pon Ngak	Nga At Khi.
Mother's sister's child	Na Pe	Nhaw Lè	Nyi	Nauk	Umbai.
Father's father	Pa We	Pu	Ah Pho	Kapu	Aumsee.
Father's mother	Pa E	Nu	Ah Baung	Kape	Aumsee.
Mother's father	Pa We	Pu	Ah Pho	Kapu	Aumsee.
Mother's mother	Pa E	Pe	Ah Baung	Kape	Aumsee.
Husband	Na Pa	Ah Wah	Lan	Masal	Yo Oh.
Wife's father	Pa We	Pu Oo	Thagaung or Ah Khan	Tarapu	Umpu.
Wife's mother	Pa E	Pe E	Ah Ree	Tarape	Umpe.
Husband's father	Puk Pre	Run	Ah Khan	Mrun	Prun.
Husband's mother	Na E	Ne	Ah Ree	Kane	Ah Nee.
Wife's brother	Pa Pre	Pu Oo	Yauk Pah	Ka Mway	Natsa.
Wife's sister	Na Pe	Nu Le	Kri Ma	Nauk	Umbai.
Husband's brother	Na Pe	Nhow	Met	Nauk	Umbai.
Husband's sister	Ya At	Ah Sai	Rauk Ma	Nauk	Toke So.
Wife's sister's husband	Na Pe	Pa Lè	Nyi	Saraung	Umbai
Husband's brother's wife	Na Pe	Tatywe	Nyi Ma	Nauk	Yike.
Son's wife's parents	Nat Kaing	Su	Kha-Mak	Ka Mway	Natsa.
Son	Sa Pa	Ahsahe	Tha	Sapa	Sapo.
Daughter	Sa Nu	Ahsama	Tha Mè	Sanu	Sanoke.
Younger brother (M. S.)	Na Pe	Nhow	Nyi	Nauk	Umbai.
Younger sister (W. S.)	Na Pe	Su	Nyi Ma	Nauk	Umbai.
Elder brother (M. S.)	Puk Pre	Ah Youk	Maung Gree	Sapa	Yike.
Younger brother (M. S.)	Puk Pre	Loi Ya	Maung She	Sapa	Umbai.
Brother's child (M. S.)	Sa Pa	Ahsahe	Tha	Sapa	Sapo.
Husband's mother's child	Ya At	Nhow	Met	Nauk	Umbai.
Brother's child (W. S.)	Na Pe	Ah Youk	Tu	Sapa	Umbai.
Wife's brother's child	Pa Pre	Pu	Tu	Rawa	Mokesa.
Sister's child (M. S.)	Lo Khe	Ah Su Lai	Tu	Samuk	Mokesa.
Husband's sister's child	Lo Khe	Su	Tu	Samuk	Umbai.
Sister's child (W. S.)	Na Pe	Su	Tha	Sapa	Katu.
Wife's sister's child	Tok Pe	Su	Tha	Sapa	Katu.
Son's son (M. S.)	Tok Pe	Su	Mrin	Tu	Katu.
Son's son (W. S.)	Tok Pe	Su	Mrin	Tu	Katu.
Daughter's son (M. S.)	Tok Pe	Su	Mrin	Tu	Katu.
Daughter's son (W. S.)	Tok Pe	Su	Mrin	Tu	Katu.
Wife	Na Pwe	Yon	Maya	Napwe	Ahyu.
Daughter's husband (M. S.)	Mauk Sa	Mok	Tha-mak	Samuk	Mokesa.
Daughter's husband (W. S.)	Mauk Sa	Mok	Tha-mak	Samuk	Mokesa.
Son's wife (M. S.)	Na Sein	Ya Wa	Krwe-ma	Rawa	Sin Ngo.
Son's wife (W. S.)	Na Sein	Ya Wa	Krwe-ma	Rawa	Lin Ngo.
Sister's husband (M. S.)	Mauk Pe	Netthara	Yauk-pah	Ka Mway	Natsa.
Sister's husband (W. S.)	Na Pe	Netthara	Met	Nauk	Umbai.
Brother's wife (M. S.)	Na Pe	Ka Nhow Wa	Ma Ree	Nauk Nu	Umbai.
Brother's wife (W. S.)	Ka Muk	Ka Nhow Wa	Rauk Ma	Nauk Nu	Ah Moke.

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-IX.

TERMS OF RELATIONSHIP IN DIALECTS OF THE PAKÔKKU HILL TRACTS ADMINISTRATIVE AREA.

English.	Chinbôk.	Chinbôn.	Yindu.	Remarks.
NOTE.—As the terms of relationship are not used without a possessive pronominal prefix, the possessive pronoun *Ka* has been prefixed in all cases *Ka* = my.				
Father	Kă-ba	Ka-paw-wa	Kă-paw.	
Son	Kă-za	Ka-zaw	Ka-zaw.	
Mother	Kă-nu	Kă-nu	Kă-nu.	
Daughter	Kă-za hmu-mi	Kă-zag-hnu	Kă-za n'hni-mi.	
Elder brother (M. S.)	Ka-pwe	Ka-hta	Ka-pwe.	
Younger brother (M. S.)	Ka-nau	Ka-nau	Ka n'ka-bwi.	
Elder sister (W. S.)	Ka-pai	Ka-si	Ka-pa.	
Younger sister (W. S.)	Ka-nau hmu-mi	Ka-nau	Ka-bak-sung.	
Elder sister (M. S.)	Ka-bè	Ka-si	Ka-pa-ō.	
Younger sister (M. S.)	Ka-bè hmaw	Ka-nau	Ka-bak-shi-ō.	
Elder brother (W. S.)	Ka-beng wai	Ka-hta	Ka-pe-ō.	
Younger brother (W. S.)	Ka-beng hmaw	Ka-nau	Ka-pe-zō.	
Father's elder brother (W. S.)	Ka-bâk dōm	Ka-paw-liu	Ka-maw.	
Father's younger brother (W. S.)	Ka-bâk chwi	Ka-paw-shwi	Ka-bwi-ō.	
Brother's son (M. S.)	Ka-za	Ka-zaw	Ka-zaw.	
Brother's daughter (M. S.)	Ka-za hmu-mi	Ka-zaw-hnu	Ka-zan'hni-mi.	
Father's brother's wife	Ka-hnuk-dōm	Ka-mōk	Ka-nu-ō.	
Father's brother's son	Ka-zak-hmaw	Ka-hta	Ka-pe-zō.	
Father's brother's daughter	Ka-zak hmu-mi	Ka-si	Ka-zi.	
Father's elder sister	Ka-ni-ko	Ka-zi	Ka-zi-ō.	
Father's younger sister	Ka-ko-tha	Do.	Ka-zi.	
Brother's son (W. S.)	Ka-zak-wai	Ka-zaw	Ka-n'htang-ō.	
Brother's daughter (W. S.)	Ka-zak-nu	Ka-zaw-hnu	Ka-li.	
Father's sister's husband	Ka-hmak	Ka-hmauk	Ka-kwe-zō.	
Wife's brother's son	Ka-bok-ko-dōm	Ka-pu	Ka-du.	
Wife's brother's daughter	Ka-dai-tha	Do.	Ka-du ba-zaw.	
Father's sister's son	Ka-tu	Ka-tu	Kang-maw.	
Father's sister's daughter	Ka-tu hmu-mi	Do.	Ka-du.	
Mother's elder brother	Ka-bo-shrō	Ka-mu-bôk	Ka-pu-bu.	
Mother's younger brother	Ka-bo-ko	Ka-pu	Ka-puk sung-zaw.	
Sister's son (M. S.)	Ka-du	Ka-tu	Ka-du.	
Sister's daughter (M. S.)	Ka-du-hnu	Do.	Ka-du ba-zaw.	
Mother's elder brother's wife	Ka-bi-ko	Ka-mōk	Ka-pi-bi.	
Mother's younger brother's wife	Ka-bi-ko-tha	Ka-mo-hta	Ka-pik-shwi.	
Husband's sister's son	Ka-du	Ka-tu	Ka-du.	
Husband's sister's daughter	Ka-du-hnu	Do.	Ka-du ba-zaw.	
Mother's brother's son	Ka-bo-ko-tha	1 Ka-pu 2 Ka-goi	Ka-kwe-zaw	1=Elder brother's son. 2=Younger brother's son.
Mother's brother's daughter	Ka-dai-tha	Ke-ze	Ka-n'leng-zaw.	
Mother's eldest sister	Ka-dai zak-dōm	Ka-zi	Ka-sung-nu.	
Mother's younger sister	Ka-dai-za	Do.	Ka-nuk-shwi.	
Mother's youngest sister	.....	.....	Ka-ta-nam.	
Sister's son (W. S.)	Ka-za n'shuam	Ka-tu	Ka-du.	
Sister's daughter (W. S.)	Ka-zak-hnu	Do.	Ka-du ba-zaw.	
Mother's elder sister's husband	Ka-nu-za	Ka-mōk	Ka-hnu-mă.	
Mother's younger sister's husband	Ka-bu	Ka-mo-hta	Ka-n'hak-za.	
Mother's youngest sister's husband	.....	.....	Ka-kwe-zaw.	
Wife's sister's son	Ka-pok-kwe	Ka-tu	Ka-du.	
Wife's sister's daughter	Ka-dai-zak p'shrum	Do.	Ka-du ba-zaw.	
Mother's sister's son	Ka-bu-za	Ka-hta	Ka-kwe-zaw.	
Mother's sister's daughter	Ka-dai-za	Ka-si	Ka-bai.	
Father's father	Ka-pu-shrō	Ka-mo-pauk	Ka-maw.	
Father's mother	Ka-nu ka-ba	Ka-maw	Ka-hnu-baw.	
Mother's father	Ka-pu-shrō	Ka-mo-pauk	Ka-maw.	
Mother's mother	Ka-pi-shrō	Ka-maw	Ka-pa-bwi.	
Son's son (M. S.)	Ka-n'shuan	Ka-tu	Ka-zaw a-zaw.	
Son's son (W. S.)	Do.	Do.	Do.	
Daughter's son (M. S.)	Ka-zak hnu-n'shuan	Do.	Ka-du.	
Daughter's son (W. S.)	Do.	Do.	Do.	
Husband	Ka-je	*Ka-be-ha	Ka-pa-mi	*Means spouse.
Wife	Kak-chu	Ka-bi-ha	Kang-hni-mi.	
Wife's father	Kak-kwe	Ka-mo-pauk	Ka-pu-bu.	
Wife's mother	Ka-pi-shrō	Ka-maw	Ka-pi-bi.	
Husband's father	Ka-pu-shrō	Ka-ze	Ka-zi.	
Husband's mother	Ka-pi-shrō	Ka-zi	Ka-zi-ō.	
Daughter's husband (M. S.)	Ka-du-kwe	Ka-tu	Ka-kwe-zaw.	
Daughter's husband (W. S.)	Do.	Do.	Do.	
Son's wife (M. S.)	Ka-za hmu-mi	Ka-nau-hni	Ka-zak-chu.	
Son's wife (W. S.)	Do.	Do.	Do.	
Wife's elder brother	Ka-kwe	Ka-gōe	Ka-kwe-zaw.	
Wife's younger brother	Ka-kwe hmaw	Do.	Do.	
Wife's elder sister	Ka-bai	Ka-maw	Ka-n'leng-zaw.	
Wife's younger sister	Ka-chaw-nau	Do.	Do.	
Husband's elder brother	Ko-pwe-yo	Ka-za-baw	Ka-tôn-zaw.	
Husband's younger brother	Ka-ze-hmaw	Do.	Ka-hle-zaw.	
Husband's elder sister	Ka-ni-ko	Ka-du	Ka-paw-baw.	
Husband's younger sister	Ka-ni-ko hmaw	Do.	Ka-paw baw-zaw.	
Wife's elder sister's husband	Ka-du	Ka-ze	Ka-kwe-zaw.	
Wife's younger sister's husband	Ka-hmak	Do.	Do.	
Husband's elder brother's wife	Ka-nōk-dōm	Ka-zi	Ka-nu-pa.	
Husband's younger brother's wife	Ka-nōk-chwi	Do.	Do.	
Son's wife's parents	Ka-kwi-rui	Ka-du	Ka-pu-bu.	
Sister's husband (M. S.)	Ka-hmak	Ko-hmauk	Ka-kwe-zaw.	
Sister's husband (W. S.)	Do.	Ka-ze	Do.	
Elder brother's wife (M. S.)	Ka-pwe ak-chu	Do.	Ka-uu-pa.	
Younger brother's wife (M. S.)	Ka-nau ak-chu	Do.	Do.	
Elder brother's wife (W. S.)	Ka-nu-dal	Ka-hmō	Do.	
Younger brother's wife (W. S.)	Ka-nok chwi-za	Do.	Do.	

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-X.

Terms of relationship in dialects of the Chin Hills Administrative Area.

Laiyo dialects.

Father	Ka-pa.
Mother	Ka-nu.
Elder brother (m.s.) ...	Ka-oo.
Elder sister (w.s.) ...	Ka-oo.
Elder sister (m.s.) ...	Far-nu-oo-pa.
Younger sister (m.s.) ...	Far-nu-now-tar.
Father's brother ...	Ka-pa-seow.
Father's brother's wife	Ka-pa-wi-nu-pee.
Father's brother's child	Ka-pa seow-far-te'.
Father's sister ...	Ka-nee.
Father's sister's husband	Ka-rang.
Father's sister's child ...	*Male* Too-pa *Fem.* Too-nu.
Mother's brother ...	Ka-nu-tar-pa.
Mother's brother's wife	Ka-nu-tar-pa-nu-pee.
Mother's brother's child	Ka-nu (oo-wi-or-now-wi) far-te'.
Mother's sister ...	Nu-seow.
Mother's sister's husband	Ka-nu (oo or now) pa-sal.
Mother's sister's child ...	Ka-nu (oo or now) far-te'.
Father's father ...	Ka-pa-pa.
Father's mother ...	Ka-pa-nu.
Mother's father ...	Ka-nwee-pa.
Mother's mother ...	Ka-nwee-nu.
Husband	Pa-sal.
Wife's father	Ka-nu-pee-pa.
Wife's mother	Ka-nu-pee-nu.
Husband's father ...	Ka-pa-sal-pa.
Husband's mother ...	Ka-pa-sal-nu.
Wife's brother	Ka-nu-pee-tar-pa.
Wife's sister	Ka-nu-pee-(oo or now) nu.
Husband's brother ...	Ka-pa-sali-(oo or-now).
Husband's sister ...	Ka-pa-sali-far-nu (oo-pa or now-tar).
Wife's sister's husband	Ka-nu-pee (wi or now) pa-sal.
Husband's brother's wife	Ka-pa-sali-wi (or now) nu-pee.
Son's wife's parents ...	Ka-far-te-nu-pee (pa or nu).
Son	Far-pa.
Daughter	Far-nu.
Younger brother (m.s.)	Ka-now-pa.
Younger sister (w.s.) ...	Ka-now-nu.
Elder brother (w.s.) ...	Tar-pa-oo-pa.
Younger brother (w.s.)	Tar-pa-now-tar.
Brother's child (m.s.) ...	*Male* Ka-oo-far-pa *Fem.* ka-oo-far-nu.
Husband's mother's child	Ka-pa-sali-nu *Male* Far-pa. *Fem.* Far-nu.
Brother's child (w.s.) ...	Ka-tar-pa-far.
Wife's brother's child ...	Ka-nu-pee-tar-pa-far-te'.
Sister's child (m.s.) ...	Ka-far-nu-far-te'.
Husband's sister's child	Ka-pa-sali-far-nu-far-te'.
Sister's child (m.s.) ...	Ka-far-nu-far-te'.
Wife's sister's child ...	Ka-nu-pee-now-nu-far-te.
Son's son (m.s.) ...	Ka-far-pa-far pa.
Son's son (w.s.) ...	Ka-far-pa-far-pa.
Daughter's son (m.s.) ...	Ka-far-nu-far-pa.
Daughter's son (w.s.) ...	Ka-far-nu-far-pa.
Wife	Nu-pee.
Daughter's husband (m.s.)	Ka-far-nu pa-sal.
Daughter's husband (w.s.)	Ka-far-nu-pa-sal.
Son's wife (m.s.) ...	Ka-far-pa-nu-pee.
Son's wife (w.s) ...	Ka-far-pa-nu-pee.
Sister's husband (m.s.)	Ka-far-nu-pa-sal.
Sister's husband (w.s.)	Ka-swe'-pee-pa-sal.
Brother's wife (m.s.) ...	Ka (oo or now) nu-pee.
Brother's wife (w.s.) ...	Ka-tar-pa (oo pa or now tar) nu- pee.

Siyin dialect.

Father	Pa.
Mother	Nū.
Elder brother	Ou (m.s.)
Elder sister	Ou (w.s.)
Elder / Younger sister ...	Ou (m.s.) / Nou (m.s.)
Father's brother ...	Pa-niou.
Father's brother's wife...	Nu-niou.
Father's brother's child	Ou-or-Nou.
Father's sister	Ni.
Father's sister's husband	Ngān.
Father's sister's child ...	Tu-pa or Tu-nu.
Mother's brother ...	Pu.
Mother's brother's wife	Son-nu.
Mother's brother's child	Pū.
Mother's sister ...	Nu Nioū.
Mother's sister's husband	Mark-pa.
Mother's sister's child ...	Nil.
Father's father ...	Pū.
Father's mother ...	Pi.
Mother's father ...	Pū.
Mother's mother ...	Pi.
Husband	Pasall.
Wife's father	Son-pa.
Wife's mother	Son-nū.
Husband's father ...	Toe-pasall.
Husband's mother ...	Toe-nu-pi.
Wife's brother	Son-pa.
Wife's sister	Nu-pal.
Son	Tah
Daughter	Tah-nu.
Younger brother ...	Nou (m.s.)
Younger brother ...	Nou.
Brother's child ...	Tah (m.s.)
Husband's mother's child	Moe.
Brother's child ...	Tah (w.s.)
Wife's brother's child ...	Son-pā or Son-nū.
Sister's child	Tu-pa or Tu-nu (m.s.)
Husband's sister's child	Tah.
Sister's child	Tu-pa or Tu-nu (w.s.).
Wife's sister's child ...	Tah.
Son's son	Tū (m.s.).
Son's son	Tū (w.s.)
Daughter's son	Tū (m.s.)
Daughter's son	Tū (w.s.)
Wife	Yi.
Daughter's husband ...	Mark-pa (m.s.)
Daughter's husband ...	Mark-pa (w.s.)
Son's wife	Moe-nū (m.s.)
Son's wife	Moe-nū (w.s.)
Sister's husband ...	Mark-pa (m.s.)
Sister's husband ...	Ou (w.s.)
Husband's brother ...	Nou.
Husband's sister ...	Moe.
Wife's sister's husband	Nu-pal.
Husband's brother's wife	*Nil.*
Son's wife's parents ...	*Nil.*
Brother's wife ...	Ou-nu (m.s.)
Brother's wife ...	Moē. (w.s.)

(M.S.) Man speaking. (W.S.) Woman speaking.

APPENDIX B-X—concluded.

TERMS OF RELATIONSHIP IN DIALECTS OF THE CHIN HILLS ADMINISTRATIVE AREA.

Haka dialect or Boungshe.

Father	K' pā.	Daughter	K' fa-nu.
Mother	K' nû.	Younger brother (m.s.)	K' nāo.
Elder brother (m.s.) ...	K' û.	Younger sister (w.s.) ...	K' nāo.
Elder sister (w.s.) ...	K' û.	Elder	K' trā ; K' u.
Elder sister (m.s.) ...	K' farr ; K' û.	Brother (w.s.) younger	K' tra.
Younger sister (m.s.) ...	K' farr.	Brother's child (m.s.) ...	K' u fa ; K' fā.
Father's brother ...	K' pā.	Husband's mother's child	(a son) K' trā (if daughter, Elder) K' û (younger) K'nāo.
Father's brother's wife	K' nû.		
Father's brother's child	K' nāo.		
Father's sister	K' nî.		
Father's sister's husband	K'trang.		
Father's sister's child ..	K' nî fā ; K' tû.	Brother's child (w.s.) ...	K' vā.
Mother's brother (elder)	K' pù.	Wife's brother's child ...	K' nupî trā fa
Mother's brother's wife	K' pî.	Sister's child (m.s.) ...	K' tu.
Mother's brother's child	K' pû.	Husband's sister's child	K' tu.
Mother's sister ...	K' nû.	Sister's child (w.s.) ...	K' fā.
Mother's sister's husband	K' pu.	Wife's sister's child ...	K' fā.
Mother's sister's child ..	K' pu.	Son's son (m.s.) ...	K' tu.
Father's father ...	K' pu.	Son's son (w.s.) ...	K' tu.
Father's mother ...	K' pî.	Daughter's son (m.s.) ...	K' tu.
Mother's father ...	K' pu.	Daughter's son (w.s.) ...	K' tu.
Mother's mother ...	K' pî.	Wife	Nupî.
Husband	Vā.	Daughter's husband (m.s.)	K' tu.
Wife's father	K' pu.	Daughter's husband (w.s.)	K' tu.
Wife's mother	K' pî.	Son's wife (m.s.) ..	K' fā.
Husband's father ...	K' pā.	Son's wife (w.s.) ...	K' fā.
Husband's mother ...	K' nu.	Sister's husband (m.s.)...	K' tu.
Wife's brother ...	K' pu.	Sister's husband (w.s.)...	K' tu.
Wife's sister (younger)...	K' nau.	Brother's wife (m.s.) ...	(elder) K'u (younger) K' nāo
Husband's brother ...	K' trā.	(if about the same age)	K' maw (if older) K' u.
Husband's sister (elder)	K' nî (younger) K' nau.	(if younger) ...	K' nāo.
Son's wife's parents ...	K' pu le K' pî.	Brother's wife (w.s.) ...	K' nāo.
Son	K' fā-pa.		

(M. S.) Man speaking. (W. S.) Woman speaking.

APPENDIX B-XI.

List of Terms of Relationship in the Kadu Language.

Father		Awa.	Husband's sister ...		Ah-tay.
Mother		Amo.	Wife's sister's husband		Yauk-pha.
Elder brother (M. S.)		Ao-mu.	Husband's brother's wife		Ah-tay.
Elder sister (W. S.) ...		Ah-tay.	Son's wife's parents ...		Khay-mat.
Elder sister (M.S.) ...		Do.	Son		Sa.
Younger sister (M. S.)		Na-si.	Daughter		Do.
Father's brother ...		Ok-si.	Younger brother (M. S.)		Na-si.
Father's brother's wife		Ah-shi.	Younger brother (W. S.)		Do.
Father's brother's child		Na-si.	Brother (W. S.) Elder		Ah-mu-shan.
Father's sister ...		Na-ton.	Brother (W. S.) Younger		Yon.
Father's sister's husband		Yauk-pha.	Brother's child (M. S.)		Do.
Father's sister's child		Na-si.	Husband's mother's child		Wan-si.
Mother's brother ...		Wan-si.	Brother's child (W. S.)		Yon.
Mother's brother's wife		Na-ton.	Wife's brother's child		Do.
Mother's brother's child		Na-si.	Sister's child (M. S.) ...		Do.
Mother's sister ...		Ah-si.	Husband's sister's child		Do.
Mother's sister's husband.		Wan-si.	Sister (W. S.) ...		Ah-tay.
Mother's sister's child		Na-si.	Wife's sister's child ...		Yon.
Grand-father. Grand-mother.	Father's father	Ok-naing.	Grand-child.	Son's son (M. S.)	Sa-don.
				Son's son (W. S.)	Do.
	Father's mother	Ah-htaung.		Daughter's son (M. S.)	Do.
	Mother's father	Ok-htaung.		Daughter's son (W. S.)	Do.
	Mother's mother	Ah-htaung.		Wife	Eit.
Husband		Ha-la.	Daughter-in-law. Son-in-law.	Daughter's husband (M. S.)	Lok-kway.
Father-in-law. Mother-in-law.	Wife's father ...	Paw-saung.		Daughter's husband (W. S.)	Do.
	Wife's mother	Me-saung.		Son's wife (W. S.)	.....
	Husband's father	Paw-saung.		Son's wife (M. S.)	.....
	Husband's mother	Me-saung.		Sister's husband (M. S.)	Pi-kway.
Wife's brother ...		Yauk-pha.		Sister's husband (W. S.)	Do.
Husband's brother ...		Ok-si.		Brother's wife (M. S.)	Ah-tay
Wife's sister		Naung-saung.		Brother's wife (W. S.)	Do.

(M. S.)=Man speaking. (W. S.)=Woman speaking.

APPENDIX B-XII.

List of Terms of Relationship in the Talaing Language.

Father	Apa.
Mother	Yaing.
Elder brother (M. S.) ...	Kaung.
Elder sister (W. S.) ...	Poar.
Elder sister (M. S.) ...	Do.
Younger sister (M. S.) ...	Dai.
Father's elder brother ...	Anar.
Father's younger brother	Audi.
Father's brother's wife ...	Briar-ana.
Father's elder brother's child	Kun-anart.
Father's younger brother's child.	Kun-mudi.
Father's elder sister ...	E-nar.
Father's younger sister ...	Sidi.
Father's elder sister's husband.	Hayaing-e-nar.
Father's younger sister's husband.	Hayaing-de-di.
Father's elder sister's child	Kun-e-naing.
Father's younger sister's child	Kun-kyi-di.
Mother's elder brother ...	Anaing.
Mother's younger brother ...	Mudi.
Mother's elder brother's wife.	Brêya-anaing.
Mother's younger brother's wife.	Brê-yamudi.
Mother's elder brother's child.	Kun-anaing.
Mother's younger brother's child.	Kun-mudi.
Mother's elder sister ...	E-naing.
Mother's younger sister ...	Sidi.
Mother's elder sister's husband.	Karaw-e-naing.
Mother's younger sister's husband.	Karaw-de-di.
Mother's elder sister's child	Kun-poar-amai.
Mother's younger sister's child.	Kun-de-amai.
Grand-father. Grand-mother. — Father's father ...	Pa-noot.
Grand-father. Grand-mother. — Father's mother ...	May-noot.
Grand-father. Grand-mother. — Mother's father ...	Pa-noot.
Grand-father. Grand-mother. — Mother's mother ...	May-noot.
Husband	Ka-raung.
Father-in-law. Mother-in-law. — Wife's father	Kun-soi-karoung.
Father-in-law. Mother-in-law. — Wife's mother ...	Kun-soi-brêya.
Father-in-law. Mother-in-law. — Husband's father ...	Kun-soi-karoung.
Father-in-law. Mother-in-law. — Husband's mother ...	Kun-soi-brêya.
Wife's elder brother ...	Kun-soi-kaung.
Wife's younger brother ...	Desini.
Wife's elder sister	Kun-sai-poar.
Wife's younger sister ...	Desini-brêya.
Husband's elder brother ...	Kun-sai-kaung.
Husband's younger brother.	De-sè-ni.
Husband's elder sister ...	Poar-baing.
Husband's younger sister ...	Desini-brêya.
Wife's elder sister's husband.	Hayan-poar-baing.
Wife's younger sister's husband.	Hayan-de-si-ni.
Husband's elder brother's wife.	Hayan-kim-sai-kaung.
Husband's younger brother's wife.	Hayan-de-si-ni. Hayan-humandi.

Son's wife's parents ...	Kun-sai-kun. Apa-ha-aw-oar.
Son	Kun.
Daughter	Kunbarê.
Younger brother (M. S.)	Dai.
Younger sister (W. S.) ...	Dai-brê.
Elder brother (W. S.) ...	Kaung.
Younger brother (W. S.)	Dai.
Elder brother's child (M. S.)	Kun-kaung.
Younger brother's child (M. S.)	Kun-di.
Husband's mother's child...	Kun-khon-soi.
.....	.....
.....	.....
Elder brother's child (W. S.)	Kun-kaung.
Younger brother's child (W. S.)	Kun-di.
Wife's elder brother's child.	Kunkhow-soi-kaung.
Wife's younger brother's child.	Kūnhamandi.
.....	.....
.....	.....
Elder sister's child (M. S.)	Kun-ei-poar.
Younger sister's child (M. S.)	Kun-di-uwar.
Husband's elder sister's child.	Kun-kaung-soi-poar.
Husband's younger sister's child.	Kundi-brêya.
.....	.....
.....	.....
Elder sister's child (W. S.)	Kun-poar.
Younger sister's child (W. S.)	Kundi-brêya.
Wife's elder sister's child	Kun-kaung-soi-poar.
Wife's younger sister's child.	Kun-de-sai-ne.
.....	.....
.....	.....
Grand-child. — Son's son (M. S.)	Kun-soung-ni-ka-roung.
Grand-child. — Son's son (W. S.)	Do.
Grand-child. — Daughter's son (M. S.) ...	Do.
Grand-child. — Daughter's son (W. S.) ...	Do.
Wife	Brê.
Son-in-law. Daughter-in-law. — Daughter's husband (M. S.)	Haman.
Son-in-law. Daughter-in-law. — Daughter's husband (W. S.)	Do.
Son-in-law. Daughter-in-law. — Son's wife (M. S.)	Ha-aw.
Son-in-law. Daughter-in-law. — Son's wife (W. S.) ...	Do.
Elder sister's husband (M. S.)	Kawn-rê.
Younger sister's husband (M. S.)	Haman-di.
Elder sister's husband (W. S.)	Kawn-rê.
Younger sister's husband (W. S.)	Haman-di.
Elder brother's wife (M. S.)	Poar-baing.
Younger brother's wife (M. S.)	Ha-aw-di.
Elder brother's wife (W. S.)	Poar-baing.
Younger brother's wife (W. S.)	Brê-ya-di.

(M. S.) = Man speaking. (W. S.) = Woman speaking.

APPENDIX B-XIII.

List of terms of relationship in the Kachin Languages.

English.	1st person.	2nd person.	3rd person.
Father	Wa	N wa	Kăwa.
Son	Shadang sha.		
Mother	Nu	N nu	Kănu.
Daughter	Shăyi sha.		
Elder brother	Hpu	N hpu	Kăhpu.
Younger brother	Nau	N nau	Kănau.
Elder sister	Na	N na	Kăna.
Younger sister	Nau	N nau	Kănau.
Father's brother	(Elder) Wadi. (Younger) Wadoi.		
Brother's child	Sha	N sha	Kăsha.
Father's brother's wife	(Elder) Tung. (Younger) Ndoi.		
Husband's mother's child	(Elder) Ku	N ku	Kăku.
	(Younger) Rat	N rat	Kărat.
Father's brother's child	(Elder) hpu	N hpu	Kăhpu.
	Younger Nau	N nau	Kăhau.
Father's sister	Moigyi.		
Brother's child (W. S.)	Nam	N nam	Kănam.
Father's sister's husband	Ku	N ku	Kăku.
Wife's brother's child	Nam	N nam	Kănam.
Father's sister's child	Hkau	N hkau	Kăhkau.
Mother's brother	Tsa	N tsa	Kătsa.
Sister's child	Hkri	N hkri	Kăhkri.
Mother's brother's wife	Ni	N ni	Kăni.
Husband's sister's child	Hkri	N hkri	Kăhkri.
Mother's brother's child	(Elder) Nam	N nam	Kănam.
	(Younger) Tung.		
Mother's sister	Ndoi.		
Sister's child (M. S.)	Hkri	N hkri	Kăhkri.
Mother's sister's husband	(Elder) Wadi. (Younger) Wadoi.		
Wife's sister's child	Sha	Nsha	Kăsha.
Sister's child (W. S.)	Sha	Nsha	Kăsha.
Mother's sister's child	(Elder) Hpu	Nhpu	Kăhpu.
	(Younger) Nau	N nau	Kănau.
Father's father	Ji hkai.		
Son's son	Shu	Nshu	Kăshu.
Father's mother	Woi hkai.		
Mother's father	Ji dwi.		
Mother's mother	Woi dwi.		
Daughter's son	Shu	Nshu	Kăshu.
Husband	Maduwa.		
Wife	Madujan.		
Wife's father	Tsa	N tsa	Kătsa.
Daughter's husband	Hkri	Nhkri	Kăhkri.
Wife's mother	Ni	N ni	Kăni.
Husband's father	Ku	N ku	Kăku.
Son's wife	Nam	N Nam	Kănam.
Husband's mother	Moi	Nmoi	Kămoi.
Wife's brother	Hkau	Nhkau	Kăhkau.
Sister's husband (M. S.)	Hkau	Nhkau	Kăhkau.
(W. S.)	Ku	N ku	Kăku.
Wife's sister	(Elder) Rat	N rat	Kărat.
	(Younger) Nam	N nam	Kănam.
Husband's brother	(Elder) Ku	N ku	Kăku.
	(Younger) Ra	N rat	Kărat.
Brother's wife (M. S.)	(Elder) Rat	N rat	Kărat.
	(Younger) Nam	N nam	Kănam.
(W. S.)	Ning	N ning	Kăning.
Wifes' sister's husband	(Elder) hpu	N hpu	Kăhpu.
	(Younger) Nau	N nau	Kănau.
Husband's brother's wife	(Elder) Na	N na	Kăna.
	(Younger) Nau	Nnau	Kănau.
Son's wife's parent's (M. S.)	Hkau	N hkau	Kăhkau.
(W. S.)	Ni	N ni	Kăni.

(M. S.) = Man speaking. (W. S.) = Woman speaking.

APPENDIX B.-XIV.

List of terms of relationship in various Karen dialects.

English.	Sagau.	Mo-pwa.	Bwe.	Karenni.	Kothi.	Konoo.	Gaiko.	Padaung.	Bres.
Father	Pah	Apa	Apa	Peh	A-paw	A-pa	Pah	A-pa	A-pa.
Mother	Mo	A-mer	A-mer	Myu	A-yur	Mo	Mü	A-mü	A-mo.
Son	Po-kwa	Fokwa	Po-ker	Poo-koo	Paw-koo	Po-ker	Paw-kü	Paw-koo	Poker.
Daughter	Po-mü	Fomer	Po-moo	Poo-mo	Paw-moo	Po-moo	Paw-moo	Paw-moo	Po-moo.
Elder brother (M. S.)	Wai-ko	Way-l'kaw	Waipoker	Viaprekoo	Ya-er-doo	Po-do-pwe	Waya-pler	Way-adoo	Way-do-pwe.
Elder sister (W. S.)	Wai-po-mü	Way-mü	Wai-th'kaw	Viapremaw	Ya-er-noo	Way-moodo-pwe.	Way-müa-pler.	Way-moo-adoo.	Apwai.
Younger brother (M. S.).	Puth'da	Po-l'da	Poo-po-ker	Per-prai-koo.	Poo-nai-a'	Pi-kaw-mi-ko.	Poo-pro-ker	Poo-prai-koo.	Poo-ma-ker
Younger sister (W. S.).	Pü-po-mü	Fomer lada	Poo-per-moo.	Per-prai-maw.	Poo-nai-pra-moo.	Pi-kaw-mo	Poo-pro-mü	Poo-prai-maw.	Poo-ma-moo.
Elder sister (M. S.)	Wai-po-mü	We-mü	Waipermer	Via-pre-maw.	Ya-er-moo-adoo.	Way-moo-do-pwe.	A-plu	Way-moo-a-pra.	Way-ma-moo.
Younger sister (M. S.)	Pü-müda	Fomer-po	Pü-per-moo	Pü-prai-maw.	Ya-er-moo-a.	Pi-kaw-mo	Poo-pro-mü	Poo-prai-maw.	Poo-ma-moo.
Elder brother (W. S.)	Po-wai-ko	Wai-vo-kwa.	Wai-per-ker.	Via-pre-koo	Ya-er-a-doo	Way-do-pway.		Way-doo-prai.	Weh-do-pway.
Younger brother (W. S.)	Pu-th'da	Folada	Poo-thai-day.	Per-prai-koo.	Poo-rai-a	Pe-kaw-me-ko.	A-pler	Way-prai	Weh-do-pway.
Father's brother	Pa-tee	Ah-pwa	Peh-tee	Peh-doo	Doo-pa	A-to	A-doh	Peh-doo	A-see.
Brother's child (M. S.)	Po-do	Foder	Per-der	Poo-doo	Paw-daw	Po-do	Paw-doo	Pondoo	Per-der.
Father's brother's wife.	Mü-ga	Mah-mah	Mah-mah	Mü-doo	The-poo-weh.	A-toh	A-dih	Mer-doo	Ma-ma.
Husband's mother's child.	Wai	Way	Wai	Dah	Weh-poo	The-poo-way.	Nay	Nigh	The-poo-the-way.
Father's brother's child.	Tkwa	L'wha	G'ber	Per-boo	The-poo-weh.	Th-g'-bo	Nga-boo	Tha-g-bo	A-ber.
Father's sister	Mü-ga	Mah-mah	Mah-mah	Mü-doo	Doo-mü	A-toh	A-doh	Mer-doo	Ma-ma.
Brother's child (W. S.)	Po-do	Foder	Per-der	Poo-doo	Paw-doo	Mer-der	Maw-doo	Pondoo	Per-der.
Father's sister's husband.	Pa-ter	Pwa-pwa	Peh-tee	Peh-doo	Doo-pa	A-tok	A-doh	Peh-doo	A-pwa.
Wife's brother's child	Pa-do	Foder	Per-der	Poo-doo	Paw-doo	Per-der	Paw-doo	Pondoo	Per-der.
Father's sister's child	Tkwa	L'wha	G'ber	Per-boo	The-poo-weh.	Tha-g-bo	Nga-boo	Tha-g'-bo	A-ber.
Mother's brother	Pa-tee	Pwa-pwa	Peh-tee	Peh-doo	Doo-pa	A-toh	A-doh	Peh-doo	A-pwa.
Sister's child (M. S.)	Po-do	Foder	Per-der	Poo-doo	Paw-doo	Per-der	Paw-doo	Pondoo	Per-der.
Mother's brother's wife.	Mü-ga	Mah-mah	Mah-mah	Mü-doo	Doo-mü	A-toh	A-toh	Mer-doo	Ma-ma.
Husband's sister's child.	Po-do	Foder	Per-der	Poo-doo	Paw-doo	Per-der	Paw-doo	Pondoo	Per-der.
Mother's brother's child.	T'kwa	L'wha	G'ber	Per-boo	The-poo-weh.	The-g'-bo	Nga-boo	Tha-g'bo	A-ber.
Mother's sister	Mü-ga	Mah-mah	Mah-mah	Mü-doo	Doo-mü	A-toh	A-to	Peh-doo	A-see.
Sister's child (W. S.)	Po-do	Foder	Per-der	Poo-doo	Paw-doo	Per-der	Paw-doo	Pondoo	Per-der.
Mother's sister's husband.	Pa-tee	Pwa-pwa	Peh-tee	Peh-doo	Doo-pa	A-toh	A-to	Peh-doo	A-pwa.
Wife's sister's child	Pa-do	Foder	Per-der	Poo-doo	Po-doo	Mer-der	Paw-doo	Pondoo	Per-der.
Mother's sister's child	T'kwa	L'wha	G'ber	Per-boo	The-poo-weh.	The-g'-bo	Nga-boo	Tha-g-bo	A-ber.
Father's father	Pü	Apü	A-poo	Pwer	A-po	A-poo	A-poo	Poo	A-poo.
Father's mother	Pee	Ah-pie	A-pee	Pya	A-pay	A-pee	A-pee	Pee	A-pee.
Mother's father	Pü	Pü	Poo	Pwer	Po	Poo	Poo	Poo	Poo.
Mother's mother	Pee	A-pee	Pee	Pya	A-pay	Pee	Pee	Pee	Pee.
Son's son (M. S.)	Lee-kwa	Lway-wha	Lay-kwa	Lway-prai-koo.	Lay-paw-kaw.	Pee-mee-ko	Lü-pro-koo	Le-pro-koo	Li-ker.
Son's son (W. S.)									
Daughter's son (M. S.)									
Daughter's son (W. S.)									
Husband	Wah	A-wa	Wah	Veh	Wah	Wa	Wo	Wah	Wah.
Wife	Mah	A-mah	Meh	May	Ma	Pwe	Mah	Mah	Meh.
Wife's father	Mee-pwa-po-kwa.	Fokwa	Mee-pwa	Prai-prai-koo.	Thee-sa-a	Mee-pway	Pra-pro-kü	Pra-pro-kü	Mee-pway.
Wife's mother	Mee-pwa-po-mü.	Pree-pwa	Mee-pwa	Prai-prai-maw.	Thee-ka-pra-moo.	Mee-pway-a-moo.	Pra-pra-moo.	Pra-pra-mü	Mee-pway-Mah-moo.
Husband's father	Mee-pwa	Mee-pwa	Mee-pwa	Prai	Thee-ka-sa	Mee-pway	Pra	Pra	Mee-pway.
Husband's mother	Mee-pwa-po-mü.	Mee-pwa	Mee-pwa	Prai	Thee-sa-a	Mee-pway	Pra	Pra	Mee-pway.
Daughter's husband (M. S.)	Ma-po	Mah	Mah-po	Meh		Mah-po	K'maw	K'maw	Ma-per.
Daughter's husband (W. S.)									
Son's wife (M. S.)	Dai	Day-mü	Dai	Dya	Dye	Deh	Deh	Deh	Deh.
Son's wife (W. S.)									
Wife's brother	Yaw-pah	Yo-pa	Yo-pah	Dah	Nigh	Yo-pah	Nay	Nay	Yo-pah.
Sister's husband (M. S.)									
Sister's husband (W. S.)									
Wife's sister	Day-mü	Way-mer	Day	Kee	Koo-ma	Day	Nay	Neh	Day.
Husband's brother	Wai	Way	Wai	Dah	Yer	Yo-pah	Nay	Nigh	Yo-pah.
Husband's sister	Wai-mü	Pü-mü	Day	Kee	The-g'nah	Day	Nay	Neh	Day.
Brother's wife (M. S.)									
Brother's wife (W. S.)									
Wife's sister's husband.	Daw-pü-wai.	Taw-mü-way.	Yo-pa	Nah	Neh	Yo-ma	Nay	Neh	Yo-pah.
Husband's brother's wife.	Daw-pu-wai-mü.	Way-mü	Day	Kee	The-g'nah	Day	Nay	Neh	Day.
Son's wife's parents	Do.	Der	Ga-mah	Kaw-meh	The-g'ma	Ga-mah	Tha-g'-maw.	Kaw-way	Ga-mah.

(M. S.) = Man speaking. (W. S.) = Woman speaking.

APPENDIX B-XIV.—concluded.

List of Terms of Relationship in various Karen Dialects—concld.

English.		Karen.	
		Two.	Sgau.
	Father	Hpa	Pa.
	Mother	Mo	Mo.
	Elder brother (M. S.)	Wè	Wè.
	Elder sister	Wè (Mu)	Wè (Mu).
Elder / Younger	Sister (M. S.)	Wè (Mu)	Wè (Mu).
	Father's brother	Hpu (Mu)	Pu (Mu).
	Father's brother's wife	Hpahte	Hpati.
	Father's brother's child	Mogao	Muga.
	Father's sister	Tahkwa	Tahkwa.
	Father's sister's husband	Moga	Muga.
	Father's sister's child	Hpahti (Man)	Hpati.
	Mother's brother	Takhwa	Takhwa.
	Mother's brother's wife	Hpahti (Manson)	Hpatihpo.
	Mother's brother's child	Moga	Muga.
	Mother's sister	Takhwa	Takhwa.
	Mother's sister's husband	Gabûn	Mugahpo.
	Mother's sister's child	Hpahti (Manson)	Hpatihpo.
		Takhwa	Takhwa.
Grand-father.	Father's father	Hpu	Hpu.
	Father's mother	Hpi	Hpi.
Grand-mother.	Mother's father	Hpu	Hpu
	Mother's mother	Hpi	Hpi.
	Husband	Wa	Wa.
Father-in-law.	Wife's father	Meinsha (Hkwa)	Mipga (Pohkwa).
	Wife's mother	Meinsha (Mu)	Mipga (Pomu).
Mother-in-law.	Husband's father	Meinsha (Hkwa)	Mipga (Pohkwa).
	Husband's mother	Meinsha (Mu)	Mipga (Pomu).
	Wife's brother	Hkeinnine	Yawhpa.
	Wife's sister (Elder / Younger)	Hkeinnine	Pudemu.
	Husband's brother (Elder / Younger)	Hkeinnine	Pudekhwa.
	Husband's sister (Elder / Younger)	Kheinnine	Pudemu.
	Wife's sister's husband	Hkeinnine	Chinè.
	Husband's brother's wife	Hkeinnine	
	Son's wife's parents	D'aung	Do.
	Son	Hpo (Kwa)	Hpo (Kwa).
	Daughter	Hpo (Mu)	Hpo (Mu).
	Younger brother (M. S.)	Hpu (Kwa)	Pu (Kwa).
	Younger sister (W. S.)	Hpu (Mu)	Pu (Mu).
	Brother (W. S.) (Elder / Younger)	Wè (Kwa)	We (Kwa).
		Hpu (Kwa)	Pu (Kwa).
	Brother's child (M. S.)	Muru	Hpodo.
	Husband's mother's child	Hkeinnine	Chenè.
	Brother's child (W. S.)	Muru	Hpodo.
	Wife's brother's child	Muru	Hpodo.
	Sister's child (M. S.)	Muru	Hpodo.
	Husband's sister's child	Muru	Hpodo.
	Sister's child	Muru	Hpodo.
	Wife's sister's child	Muru	Hpodo.
Grand-child.	Son's son (M. S.)	Li	Li.
	Son's son (W. S.)		
	Daughter's son (M. S.)		
	Daughter's son (W. S.)		
	Wife	Wa	Wa.
Son-in-law.	Daughter's husband (M. S.)	Mat	Mah.
	Daughter's husband (W. S.)		
Daughter-in-law.	Son's wife (M. S.)	Dai	Dè.
	Son's wife (W. S.)		
	Sister's husband (M. S.)	Hkeinnine	Yawhpa.
	Sister's husband (W. S.)	Hkeinnine	
	Brother's wife (M. S.)	Hkeinnine	Wemu.
	Brother's wife (W. S.)		

(M. S.)=Man speaking. (W. S.)=Woman speaking.

APPENDIX B-XV.

NOTE ON TERMS OF RELATIONSHIP IN THE SALON OR MAWKEN LANGUAGE.

The Mawken relationships are interesting and, it seems to me, worthy of record. It is strange that while they are so careful to distinguish between elder and younger brother, the wife of an elder or younger brother, and the husband of an elder or younger sister, they should have no term for cousin. A cousin (first cousin) is called *ja*, which is the word for friend. The principle upon which the differences are noted has not been discovered; but there must be some reason for it.

The following is the list of relationships to which names are given. The word for wife *beni* is the same as that for female; and the word for husband is the same as that for male *käni*.

This must be borne in mind when studying the terms employed.

The word for man in general (mankind in common; or a single member of the human race) is *manoot*: Man and wife are *käni* koo *beni*. The father is called *apong* and the mother *enong*.

A grand-father is *ebäp* and a grandmother *eboom*.

Children in general are called *chänat* (the singular and plural being denoted by one word). One's own child is called *'anäk*. If a son it is *anäk käni;* if a daughter *anäk beni;* an uncle (father's or mother's elder brother) is spoken to as *tawhä käni;* while an uncle (father's or mother's yonguer brother) is called *nye käni*. The case of aunts is similar. A father's or mother's elder sister is called *tawhä beni;* and a father's or mother's younger sister is alluded to as *wä beni*. There is no general term for brother or sister. The general terms for uncle and aunt, are *kamon* and oowa. It is always necessary to speak of elder or younger brothers and sisters and their wives and husbands. I have not discovered if they have, and lay great stress upon the old saying "Age before Honour" but in all their relationships primogeniture is carefully noted. An elder brother is *aka käni* and a younger brother *ooooe käni*. An elder sister is *aka beni* and a younger sister is *ooooe beni*.

Brothers-in-law are likewise distinguished. An elder brother's wife is *loowä;* a younger brother's wife is *epan beni*. An elder sister's husband is *bei* and a younger sister's husband is *epan käni;* nephews and nieces are not distinguished, apparently, as only one word is given for each, regardless of their being children of elder or younger brothers. Nephew is *kamawn käni;* and niece is *kamawn beni*.

A father-in-law (on either side) is *tawkä käni;* and a mother-in-law is *tawkä beni*. It is well to notice the change from *h* to *k* in the words for uncle or aunt and father-in-law or mother-in-law. If a man's wife dies and he takes another she is called *beni nek* (*nek* mean small, or lesser). In the same way if a woman marries another man when her first husband dies the second husband is called *käni nek*. Also, the term *nek* is applied throughout the relationships; and a boy or girl calls his or her step-mother *enong nek* (lesser mother) and step-father *apong nek*.

Cho cho käni and cho cho beni are the terms for grandson and grand-daughter, respectively. While a daughter-in-law is nyätoi beni and a son-in-law is nyatoi käni.

The usual custom is for a man to have only one wife; and a woman to have only one husband. In case of death it is not uncommon for the living party to remain unmarried. *Some* Mawken have two wives at once, but it is spoken of as *amon ha* (not good). There is much family affection: though the Mawken are not demonstrative. I have not seen a mother kiss her child nor a child its mother.

In the Mawken language there is no need for *c*; but the sound ch (called in Pitman's Phonography *chay*) is in common use.

A recent discussion upon the sound in the Burmese word *choung* has shewn that some think the sound is *ty*. But it is difficult to see how any one can have any doubt as to *ty* and *ch*. The difference is simply tested by pronouncing the two sounds; when it will be found that the tip of the tongue and the teeth are required for *ty*; while for *ch* the tip of the tongue is not raised and the sound is fired off from the gum-base of the teeth and the part of the tongue above the tip. Anyone who has studied voice-production and has grasped something of Emil Behnke's book, "The mechanism of the Human Voice," will be clear on the point. In committing Mawken to writing and employing Roman letters (more correctly, perhaps, Manaen letters) the double consonant employed has been *ch* and not *ty*. Which shall be used for choung, is left to those whom it concerns. As the word is *generally* heard, the sound is *ch*. The correct sound may be *ty;* but, if so, no Burman I have yet heard pronounces it so.

This aside illustrates the writer's lines in writing Mawken phonetically.

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PART I.—REPORT

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