

CENSUS OF PALESTINE 1931

VOLUME I

PALESTINE

PART I

REPORT

BY

E. MILLS, B.A., O.B.E.

ASSISTANT CHIEF SECRETARY
SUPERINTENDENT OF CENSUS



By authority

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CORRIGENDA

CENSUS REPORT

VOLUME I.

Page 87: For 'Artuf' read 'Arsuf'.

Page 127: Marginal table, last row, second column: for '169' read '164'.

Page 136: second table, row 45-50, second column: for '308' read '038'.

Page 289, paragraph 256, line 5 therein:

For 'four farmers for every ten agricultural labourers among the Jews' read

'fourteen farmers for every ten agricultural labourers among the Jews'.

VOLUME II.

Page 295: Row 'Public Force', column 15: for '1,264' read '1,246'.

Page 314: Summary at head of table is in respect of Palestine Nomads omitting gypsies in Nablus. The gypsies should be included and the summary should be:—

Total earners	...	18,797
Total working and non-working dependants		47,756
Total population	...	66,553

Page 515: Table XX, Preface: The last sentence should read:—

'The information is given in respect of subsidiary occupations only in cases in which for each of such subsidiary occupation at least fifty principal occupations were returned'.

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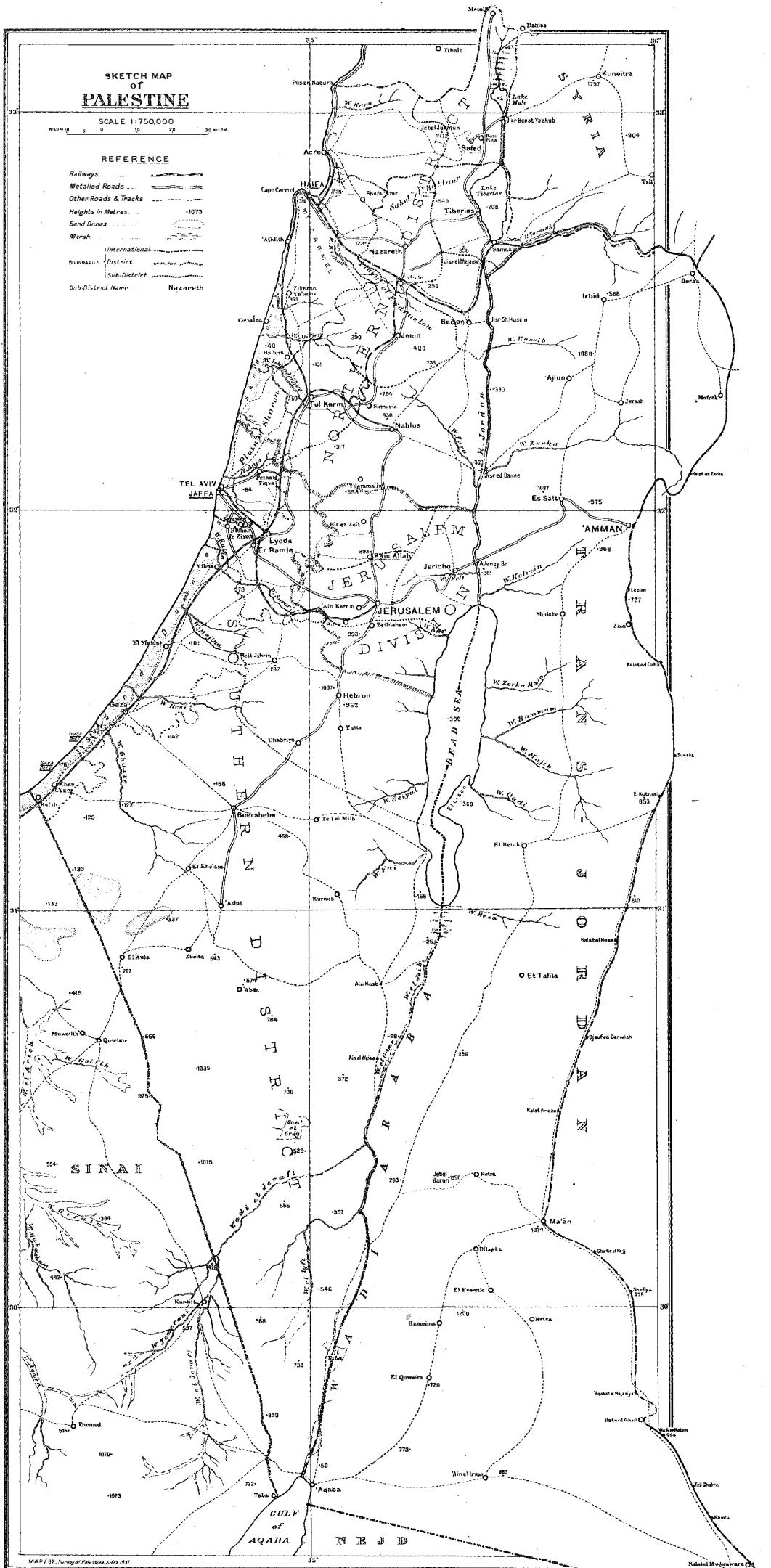
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CENSUS OF PALESTINE 1931

PALESTINE

PART I

REPORT

INTRODUCTION

THE second census of Palestine since the British Occupation in 1917 was taken as at midnight on the 18th of November, 1931. Operations began on the 1st of May in that year and the General Census Report was completed at the end of November, 1932. General.

The complete Census Report consists of four volumes :—

- (i) Population of villages, towns, and administrative areas, published in July, 1932.
- (ii) General Census Report — Report — Volume I.
- (iii) General Census Report — Principal Tables — Volume II.
- (iv) The Administrative Report.

The Administrative Report has not yet been completed and it is doubtful whether it will be printed ; and, even if it should be printed, whether it will be generally available to the public. It is a complete description of the census operations from beginning to end ; contains the detailed code of procedure for enumeration and for tabulation ; and includes comments as to the success or failure of the application of the rules, and, also, suggestions for the conduct of future censuses. It is, in fact, intended to be a guide to the next census authority. While this detailed and technical Administrative Report is of no great interest to the general reader, it may be useful if I summarize here the general characters of the complete census operations.

The taking of any census involves two distinct main operations ; first, the information sought must be obtained by a process of enumeration by which the information elicited from the persons, liable to make census returns, is recorded on special forms known as census schedules ; and, secondly, a process of tabulation, by means of which the information obtained is fitted to the framework of tables with definitions for rows and columns, and is, by this means, rendered significant and interpretable. The number of possible tables is very great if the various correlations and associations are complex, but a relatively small number of such tables give significant information. The significant information, so tabulated, is subjected to close analysis on the results of which the Census Report is framed.

Between the years 1917 and 1922 the Government were content to rely upon estimates of population derived mainly through the agency of the District Administration. In 1922 it was proposed to create a Legislative Council based as to its unofficial membership on popular franchise ; and, in order to determine the proportions in which the various communities should be represented among the unofficial members of the proposed Council, it was necessary to take a census which would yield the information as to the absolute numbers of persons who comprised the several communities. This census was taken on the 23rd of October, 1922, and divided the population not only by religious communities, but also into house-dwellers, whether in villages or in towns, and tent-dwellers who were assigned to a population defined as tribal. The enumerators were

Previous censuses.

departmental officers and in most cases they obtained the information required through village officials.

The second census was taken on the 18th of November, 1931, not quite nine years and one month after the first census¹, the date having been chosen with regard to the desirability of enumerating people when the migratory movement of the population was likely to be a minimum.

It is probable that late October gives the most satisfactory period for census-taking in Palestine since migration is then small and there is no risk of heavy rainfall which considerably reduces the mobility of the staff engaged in enumeration. Fortunately, rain did not fall heavily in 1931 until after the date of the census.

No special arrangements were made for tribal areas as defined in the census taken in 1922, but in certain instances a special enumeration was made of nomadic peoples who were reluctant to co-operate in a general census.

The legislative and administrative procedure for the enumeration.

The census was taken under a legal enactment, the Census Ordinance, 1931, appearing, together with the subordinate legislation, in the Census Gazette of the 16th of September, 1931. The Census Ordinance follows, in great part, the English enactment, the Census Act, 1920 (10 and 11 Geo. 5 Ch. 41). Both the Act and the Ordinance are of enabling character, provision for the executive administration of the census being contained in regulations and administrative instructions. The two principal differences between the Act and Ordinance are :—

- (i) Under the Act a census cannot be held in England more frequently than once every five years, whereas in Palestine it is lawful for the High Commissioner in Council to direct that a census be taken at any time.
- (ii) Special provision is made in the Census Ordinance whereby no information obtained in connexion with the taking of the census is admissible or can be used in evidence in any civil or criminal proceedings whatsoever, except in criminal proceedings for an offence under the Ordinance.

The inclusion of a provision under which census information may not be used in civil or criminal proceedings was not a strict legal necessity having regard to the terms of other sections of the Ordinance ; but the provision was deliberately made in order to put the matter beyond all doubt and so give confidence to a population which, in great part, is traditionally hostile to the taking of a census. Moreover, there are in Palestine persons, both Jews and Arabs, who have either entered the country without completing the proper formalities or who have remained in the country without registering as immigrants ; and the special provision undoubtedly enabled these persons to give the census information required without fear of legal consequences in respect of offences they may have committed by being in the country without having followed the proper procedure.

The subordinate legislation consisted of as few regulations as possible together with a complete code of administrative instructions. The schedule of questions and the forms to be used were made part of the regulations which appear in the Census Gazette to which reference has been made above. The administrative instructions were not published since they were of departmental character being directed to all officers of the district administration and various departments who assisted in the census administration.

Executive administration

The executive work for the census began in May, 1931, when instructions were issued that all houses throughout the country, town and village, should be numbered, and that the mosaic of census divisions in the country should be constructed. While these operations were in progress the Superintendent of Census was associated with an Arab Advisory Committee and a Jewish Advisory Committee for the purpose of submitting recommendations to the High Commissioner as to the form and content of the census schedule. The result of the deliberations of these two committees was a schedule about which there was little contention. Any question in Palestine is viewed from at least two political angles, and

¹ For most purposes this intervening period has been taken in the Census Report to be nine years exactly.— E.M.

the two committees are to be congratulated on having composed a schedule which caused no controversy, and which gave no opportunity for distortions in census information which would have been inevitable with a schedule regarded as political. The two committees were also largely responsible for the success of the census since they gave confidence to the people whom they represented, and organized a quiet but effective publicity on behalf of the census among those who, for various reasons, considered that public interest was best served by opposing the attempt to gather for the first time reliable data of sociological and economic character. The local Press also gave every assistance by helping the Census authorities to make plain their intentions and the scheme of operations.

The administrative instructions, to which reference has been made above, set out completely the procedure to be adopted in the taking of the census. That procedure is identical with that which has been adopted so successfully in India since 1871.

Administrative procedure.

The general scheme for the organization provided for the division of the country into census blocks each of which (except in areas inhabited by true nomads) contained from 50 to 80 houses and was in charge of an enumerator. Above the block came the circle comprising about 20 blocks under a supervisor who was responsible for the work of all the enumerators in his circle. Circles were grouped into charges under a charge superintendent who exercised general supervision over the operations and tested a proportion of the work of his subordinates. The district officer in charge of a sub-district controlled the whole operation within his jurisdiction.

The strength of the census staff was about 4,000 of whom more than 3,500 were enumerators chosen from the general public, the remainder of the staff consisting of public officers.

In Europe the census schedules are usually filled in by the head of the family but this is impracticable where the majority of the people are illiterate. In Palestine the schedules were, as a rule, filled in by the enumerators. It was not possible for them to enter all the required particulars of all persons residing in their blocks in the course of a few hours on the night of the census and therefore the bulk of the work was done beforehand. This method has the advantage that it permits superior census officers to test and revise, where necessary, the preliminary record taken by the enumerators.

Throughout the summer months classes were held at which census officers of each grade were instructed in census duties by an officer of a higher grade.

Census officers began their duties shortly after the 1st of October and prepared a rough draft of the census record. This was tested, revised, and copied into the census schedules. On the night of the census, the 18th of November, the record so prepared was brought up to date by the deletion of entries relating to persons no longer present and filling in the necessary particulars for newcomers. An exception was made of chief resident officers of hospitals and similar institutions who were obliged to make the census record themselves in respect of all persons falling to be included in those institutions for census purposes.

On the morning of the 19th of November the enumerators met their supervisors at places previously arranged and filled in the abstract for the block which is a form showing the number of persons, male and female, in each block. The supervisor after testing these figures prepared a summary for his circle which he then sent to his charge superintendent. The charge superintendent filled in a similar summary for his charge and sent it to his responsible district officer who prepared a like return for the sub-district. A provisional total of persons, male and female, was thus quickly prepared for each sub-district and district; and the district provisional totals were telegraphed to the Superintendent at Jerusalem who was thus able to declare a provisional total for the whole country within 20 hours of the completion of the enumeration.

The provisional total.

A special system of enumeration was devised for Beduin habitually dwelling in the southern tracts of Palestine who are traditionally opposed to the taking of a census. This enumeration was placed in the hands of a special officer of the

Special enumeration of non-synchronous tracts.

district administration ; and a representative sample of his enumerations of the sub-tribes was tested in order to elicit a statistical idea of the degree of accuracy of the whole of this special enumeration. The enumeration of the Beduin in the south of Palestine was, therefore, not completely synchronous with the Census of Palestine ; but, nevertheless, it was completed at the same period of the year. The Beduin in the north of Palestine are not strictly nomadic in habit, having settled like villagers in certain localities but dwelling in tents and not in houses. Such persons were enumerated under the general arrangements described above.

Principal features of the general enumeration.

It will be realized that the two main features of the enumeration were :—

- (i) the information was on the whole recorded by official enumerators drawn from the population (usually in the locality in which the enumerator himself resided) ; and
- (ii) the record was revised before the actual day of the census and was brought up to date by co-ordinated direction on the night of census day.

With regard to the first feature there were exceptions to the general rule that the information should be recorded only by controlled official enumerators. Practically all these exceptions were made in respect of institutions such as hospitals, convents, residential schools and gaols, where, as will be recognized, it would be most undesirable to permit the entry of persons engaged as subordinate census officials, and where legislation provided that the census obligations should be discharged by the responsible officers of the several institutions. With one exception the census schedules completed in respect of institutions were not highly satisfactory. The exception to this general criticism was provided by the Principal of the Women's Training College, Jerusalem, whose record of enumeration of the staff and residential pupils, containing only two minor errors, was a model for similar returns in any country.

With regard to the second feature, it is held by some authorities that the double enumeration is not essential, since the broad features of the results emerge from proportional statistics, which are affected only to a very small extent by the increased accuracy provided by a second enumeration occurring a short interval after the first enumeration. If the population enumerated be large, I do not dispute this opinion ; but vital occurrences and migration may have significant effects within a short time on a small population, and I am disposed to believe that, in Palestine, the second enumeration was well worth the additional labour and expense. Such simple tests as I and private persons working independently have been able to apply, since the census, tend to show that the accuracy of the results is generally indisputable ; but the actual changes in the record between the first and the second enumerations were sufficiently numerous and sufficiently great in magnitude to justify the inference that the first enumeration, by itself, was definitely less accurate than the revised and corrected enumeration.

The tabulation of the results.

The second stage of the census consisted of the collection in tabular form of all the information given in the census returns ; the analysis of the tables ; and the preparation of a comprehensive report setting out the significant features of the census figures.

The work of tabulation is complicated. There are three principal methods by which the process can be completed, namely, by the use of mechanical or electrical sorting and tabulating machines ; by the use of what is commonly called the " tick " system ; and by the use of what may be called the " slip " system. The cost of machines and the size of the Palestine population did not justify the use of the first system. The " tick " system was still in use in England in 1901, but it had been condemned many years before by Herr G. von Mayr as being an " awkward, untrustworthy and obsolete method ", and it has now been abandoned in most countries where the census is more than the mere counting of heads. The " slip " system which was invented by von Mayr in connexion with the Bavarian Census of 1871 was used in Palestine. In this system the information on the census schedules is transferred by code symbols on to small slips of paper coloured differently for different religions, there being one slip for one person in the enumerated population. When this coding operation is completed, the sorters take over the slips and sort for the various census tables into racks of

pigeon-holes properly labelled for each table. The slips in each pigeon-hole are then counted, and the totals are entered into tickets which are then taken over by compilers who post the totals on the tickets into special registers from which the final tables are compiled.

The coding and the sorting staffs in Palestine consisted of an establishment of 48 persons, working for seven months. In order to maintain this establishment it was necessary to employ 120 persons some of whom were departmental officers; the remainder being specially selected and employed on a temporary basis. Arabs, Jews and British personnel were employed without distinction.

The question naturally arises whether there is no "short cut" between the record of enumeration and the final tabulations. Clearly the delay lies in the operation of coding personal details either on to cards for sorting machines or on to slips conveniently shaped for use by hand sorters. I should hesitate to give an opinion without experiment in the various alternative methods that have been propounded from time to time. The Census Office in Palestine has, so far, been an ephemeron: it is created for its delightful day and it then ceases to exist. A permanent statistical office has the opportunity to conduct experiments in enumeration and tabulation and to prepare a census on the results of the experiment that offers the best prospects of success. Whether such an office can be established in Palestine in the near future is a matter for conjecture. That being so, it is unnecessary to speculate too earnestly as to the relative value of untried methods in Palestine. It was undoubtedly right to take the census in 1931 on a method which has stood the test of time in the sub-continent of India with its human problems greatly more complex and variegated than those of Palestine.

Alternative methods of tabulation.

The total votes provided for the census during the financial years in which the complete operations were conducted amounted to £P 11,000; but a proportion of this expenditure, being book transfers in respect of some departmental services, forms no additional charge to the tax-payer. Moreover revenue has been and will be realized from the sale of census publications. The actual cost of the census may, therefore, be taken to be £P. 8,500 or less than £P. 8,500 mils (£8. 10s. 0d.) per thousand of population. The cost of the census of England and Wales, 1921, was £9. 5s. 6d. per thousand of population. In comparing these figures it must be remembered that enumerators in England do not fill in the census schedules, so that the proportion of enumerators to population is about one quarter of the proportion in Palestine.

The cost of the census.

I have expressed within the text of the Report my gratitude to those who have contributed articles, notes or information on special subjects in which they were in a position to give authoritative opinion: and I have also indicated the sources from which various references are drawn.

Acknowledgments and references

In regard to the complete census operations my indebtedness is heavy. In the first place the success of the census is due to the zeal and enthusiasm of the officers of the district administration. To have satisfied my demands for rigid obedience to the complicated code of procedure must have often tried their patience; but, now that the census is completed, they will, I hope, appreciate that precision and co-ordination of arrangements were essential, and will feel, as I do, that the work was well worth doing. My thanks are also due to those Directors of Departments, particularly of Education, Agriculture and Health, and to the Inspector General of Police for their very ready response to my requests for assistance. It would have been impossible, in many cases, to have enumerated the population if the services of a large proportion of the village schoolmasters had not been placed at my disposal; and the care and thoroughness with which educational and agricultural officers revised and checked the records of enumeration ensured the accuracy of the records. The General Manager of the Palestine Railways, the Inspector General of Police and the Director of the Department of Health readily gave me clerical assistance when I needed it.

Among the census staff within the tabulation office it is difficult to discriminate when all worked with such devotion and fidelity to duty. My association with them will always remain one of the happiest memories of my life. Mr. A.

Baradon of the Department of Customs, Excise and Trade and Mr. N. Slavny, assisted by Mr. C. Lubbat, were responsible for the compilations, and both of them spent long hours on very responsible, highly complicated and often tedious work. Mr. E. Fichman, as draughtsman, prepared most of the diagrams and graphs given in the Report Volume and I am obliged to him for his careful, painstaking work. Mr. J. Blumenfeld of the Chief Secretary's Office and Mr. A. Kreisman of the Department of Public Works, both acted at different times as Chief Clerk to the Census Office and saved me from dissipating energy on routine matters, while, at the same time, they maintained the machinery of the office in efficient order. Dr. R. Kaznelson, F.S.S. was employed for four months to assist me in the manifold computations that are a necessary preliminary to the analysis of census results. His work was of the greatest value, and he illumined by his knowledge of affairs in Palestine many of the perplexities that confronted me. Unfortunately, it was not possible to arrange that he should be associated with me throughout the whole of the analytical work, but those parts of the Report, concerned with matters in which he conducted researches, are greatly enriched by his collaboration. He is, moreover, responsible for having extracted the very complete comparative statistics that are given in the various chapters¹. Miss B. Petruska acted as secretary and copied my manuscript for the printers, a very heavy task demanding utmost concentration of attention. I am especially grateful for her care and thoroughness in all that she did. To my wife I am indebted for translations from the German of notes supplied by Dr. Hermann and Dr. Salzberger² and of various references: and also for undertaking that laborious task of preparing the index.

I must also express my sense of obligation to Mr. S. P. Vivian, C.M.G., Registrar-General, England and Wales, for the facilities he gave me in the spring of 1931 to study the matured preparations for the census taken in England and Wales in April of that year. My debt to Sir E. A. Gait, K.C.S.I. in respect of advice is incalculable. Sir Edward Gait was Superintendent of Census in Bengal in 1901 and was Census Commissioner for India in 1911, later holding the highest appointments in India under the Governor-General, and serving on retirement on the Council of the Secretary of State for India. Anyone contemplating for the first time the complicated and highly delicate mechanism of census operations is bound to be afflicted with a sense of timidity in setting up and controlling the necessary machinery in a country completely lacking in experience of this kind. Sir Edward Gait not only gave me the required sense of confidence, but also gave me a clear conception of the adaptation of means to end that has never left me. I should be lacking in grace if I failed to record that any success which may attend the Census of Palestine, 1931, is due primarily to Sir Edward Gait's wisdom and experience. I have, moreover, followed the arrangements of his own magisterial report of the census taken in India in 1911; and I have not hesitated to utilize freely the authoritative material of that report, where it seemed to me to be relevant to the characters of the small population of Palestine.

Finally, I have to express my obligations to Messrs. Whitehead Morris Limited, who have printed the two volumes of the Census Report. They have spared no pains to satisfy my requirements as to arrangement and varieties of fount. The results are elegant, the tabular matter is easily interpretable, and there is no undue strain upon the eyesight in the letterpress, or the diagrams, or the tables.

In conclusion, I dare not to hope that there will be found no errors in the Report. Checking of the enumeration and checking off the compilation of the tables were as complete as I could make them: but the checking of the remaining statistical matter was not so efficient. I trust, however, that such errors as may be found in the statistical matter will be of no great consequence.

E. MILLS.

¹ The principal sources for these statistics are:—

- (i) "Aperçu de la démographie des divers pays du monde" Published by the International Statistical Institute.
- (ii) "Statistique internationale des grandes villes" Published by the International Statistical Institute.
- (iii) "Methodik der Volkszählungen" — Franz Hiess, Jena, 1931.
- (iv) "Handbuch der mediz. Statistik" — Prinzing — 1931.
- (v) Various original census reports.

² See Chapter X (Infirmities).

CHAPTER I.—DISTRIBUTION OF POPULATION.

INTRODUCTORY.

1. THE bibliography of Palestine is of great proportions, and it is, therefore, unnecessary to enter in a Census Report great detail as to the physical characteristics of the country. Some description is, however, required in order to make plain a fundamental difficulty in discussing the census statistics of the population—a difficulty that will persist until regions which may be described as natural divisions are determined and proclaimed by legal enactment. General.

It will be evident that census statistics must be based on a framework of local division which is easily recognized and which is exactly determined. Such a framework is in existence at present and is determined by the division of the country into administrative areas, namely, villages with their varying forms of local government, towns of which the local government is municipal, sub-districts and districts in which administration lies directly with the executive government of Palestine.

2. A frame-work based on administrative divisions is adequate for the preparation of census statistics concerning the social and economic conditions of the population at one given point in time, and much value may be attached to such statistics: but by far the greater value of census statistics resides in the measurements of various social and economic tendencies of the population, and such measurements depend on the possibility of comparing one set of census statistics with the set derived from a previous census. Exact comparison implies rigidity of the framework within which the sets of statistics are collected: for example, the statistics of District A in 1922 are only comparable with the set of statistics of District A in 1931 if District A has not changed its form and superficial area during the period. The disadvantage of using the framework of administrative divisions lies in the fact that the grouping of administrative areas frequently changes so that the form and content of administrative divisions may be different at successive censuses. In order to establish exact comparison between the statistics of successive censuses taken in these circumstances, it is necessary to recast the statistics of the earlier census to fit with the framework of the later census. This operation has, in fact, been done in respect of the census of Palestine taken in 1922 and will be discussed in later paragraphs of this Report.

3. While the operation of recasting the statistics of 1922 was, by reason of the small quantity of statistical material available as a result of the census of 1922, not an excessively long task, such an operation for a complete demographic census is formidable and should be avoided as far as possible.

The means by which this difficulty can be avoided are to be found in making a fixed framework of reference which remains immutable over long periods of time. Such a framework is established by determining and proclaiming regions known as natural divisions. Leaving aside the rare chances of cataclysmal events extending over large areas, the natural divisions of a country change character very slowly, and these changes are imperceptible in long periods of history, only becoming perceptible in periods the ranges of which are marked by geological epochs. For all practical purposes, therefore, natural divisions constitute a rigid framework of reference for census statistics, and, as a consequence of their determination and use, the results of successive censuses become strictly comparable, and the labour of recasting census statistics at different times is completely avoided.

4. The simplest possible arrangement is of course given when administrative divisions and natural divisions coincide; but administrative divisions are determined on a variety of needs, administrative, political and economic, and the chances that these needs are satisfied by identity of administrative and natural divisions are infinitesimal. The most practical arrangement provides for an integral number of small administrative areas such as sub-districts within a natural division, the principal administrative division, such as the district, being shaped and sized according to convenience from time to time, provided that it contains also an integral number of sub-districts which are parts of one or more natural divisions. In such an arrangement the country is a complete mosaic of sub-districts which yields two patterns, first, the pattern of the natural divisions and, secondly, the pattern of the principal administrative divisions.

This arrangement enables the census authority to make use of the administrative machinery of government without dislocation, and provides him with the fixed framework of reference necessary to a proper formulation of comparisons, by which to measure trends and tendencies in the population. Thus, in the example under consideration, since the unit of administrative areas is given as the sub-district, and since both the natural and the principal administrative divisions consist of integral numbers of sub-districts, the comparative statistics are obtained by grouping the sub-districts into natural divisions, and the absolute statistics for administrative areas are obtained by grouping the sub-districts into districts. To determine ultimate changes in population, such as the variation in sex proportions at different ages, the comparative statistics of natural divisions are used; while the possibility of development of road communications, for example, in a district is related to the probable number of users from different localities, and this number is established on the basis of the absolute statistics of the administrative areas.

In this way the two-fold purpose of the census is achieved: the means of measurement are available by use of natural divisions which are unchanging for all practical purposes, and the absolute statistics of administrative areas are also available for the purposes which these statistics serve, no matter how these areas may have changed size or form in the intercensal periods.

Natural divisions not declared in Palestine.

5. In Palestine, however, natural divisions have not been determined under legal sanction and, consequently, comparison between the results of the census 1931 and the census 1922 is only possible after the figures of 1922 have been recast to correspond with the only determined framework in existence at the time of the census 1931, namely that given by the administrative divisions of the country at that time.

The executive arrangements for the census 1931 were not formulated until May in that year and, if the census were to be taken in 1931, it was not possible to determine natural divisions and re-arrange sub-districts in such manner as to give integral numbers of sub-districts for natural divisions and for districts. It will be clear, that, since each individual may have an opinion as to the natural divisions of a country, there must be a final authority if natural divisions are to form a permanent framework of reference for all purposes; and that the authority must therefore be a legal enactment. To prepare such an enactment involves consultation with competent opinion, when a variety of considerations becomes apparent in the problem; and, following such consultation, adjustments in sub-districts are necessary in order to give an integral number of sub-districts to each natural division without overlap of boundaries. Such a procedure occupies considerable time and the census of 1931 could not have taken place in that year if it had been decided beforehand to use natural divisions as its basis.

6. It must not be thought that the argument for forming natural divisions rests solely on the convenience of the census authority. Natural divisions are determined on a variety of considerations; but, generally speaking, geological formation and climatic characters have the most important influence on the definitions. Geology associated with topography reacts upon climate, and soil

values are to some extent determined by the same factors. In their turn, varying climate and soil are causative of different types of agriculture and different economic and social conditions. It follows that some of the attributes of a place or a unit of population in one part of a natural division are common to other parts of the same natural division, so that the effects of an act of policy or administration affecting these attributes will largely be common to the whole division. Technical departments, concerned with the development of the country in every form, are bound by force of circumstances to have regard to these considerations; that is to say, the operations of these departments are to a large extent governed by the conditions in natural divisions. In point of fact there is nothing novel in all this; from time immemorial it has been customary in Palestine to refer to the desert, and to the plain, and to the "mountain" or hill country; and a natural division of the country is no more than a part of the country naturally thought of as coherent and consistent in itself. The history of Palestine is indeed the history of its natural divisions in this sense. But, whereas it is usually enough for departments to operate on the crudest definitions of these divisions, the taking of a census demands complete precision of definition, and this precision can only be obtained in virtue of legal authority.

7. An attempt has been made in later parts of this Report to reveal tendencies in the population by referring the statistics to a framework of natural divisions and it is therefore of value to apply these considerations to Palestine as constituted at the present time. The country lies between the Mediterranean Sea on the west and the desert on the east: it lies south of the Lebanon which topographically may be regarded as a focal point for Palestine and Syria together and lies north of the Sinai desert. For purposes of this Report the eastern boundary is the median line of the Jordan Valley running south to a point just west of Aqaba because that part of Palestine which lies east of the Jordan, and which is known as Trans-Jordan, is under a separate administration, and the census of Palestine taken in 1931 relates only to that part of the whole territory which lies west of the Jordan.

A tentative scheme of natural divisions.

The complete definitions of the boundaries of Palestine so defined are:—

- (i) *South.* The frontier between Sinai and Palestine arranged during Lord Cromer's term of office in Egypt.
- (ii) *East.* A line drawn from a point two miles west of Aqaba in the Gulf of Aqaba up the centre of the Wadi Arraba, the Dead Sea and the River Jordan to the junction of the latter with the River Yarmuk, thence up the centre of the River Yarmuk to the Syrian frontier.
- (iii) *North.* The boundary defined in the Anglo-French Convention 1920 and rectified in 1922-1923. As a consequence of the rectification there were transfers of land and population between Syria and Palestine.
- (iv) *West.* The Mediterranean Sea.

In general terms the natural divisions based on topography and running from west to east are:—

- (i) The Maritime Plain.
- (ii) The Central Range.
- (iii) The western half of the Jordan Valley.

To these may be added¹:—

- (iv) The Beersheba area known as the Negeb.
- (v) The Shephelah which lies in the south between the Maritime Plain and the Central Range.

- (vi) Carmel which separates the Maritime Plain from the Plain of Esdraelion.
- (vii) The Plain of Esdraelion, which divides
- (viii) Upper and Lower Galilee, the northern part of the Central Range from the main mass.

Very roughly this grouping is covered by the following arrangement of the administrative sub-districts :—

- (i) *Maritime Plain.*
Gaza sub-district, Jaffa sub-district, Ramle sub-district, Tulkarm sub-district and that part of Haifa sub-district which lies to the south of Carmel.
- (ii) *The Central Range.*
Hebron sub-district, Bethlehem sub-district, Jerusalem sub-district, Ramallah sub-district, Nablus sub-district and Jenin sub-district.
- (iii) *The western half of the Jordan Valley.*
The most easterly portions of those sub-districts named in (ii) which include parts of the Jordan Valley together with parts of the Beisan, Tiberias and Safad sub-districts.
- (iv) *The Negeb.*
Beersheba sub-district.
- (v) *The Shephelah.*
The westerly parts of the Hebron sub-district.
- (vi) *Carmel.*
Part of the Haifa sub-district.
- (vii) *Esdraelion.*
Parts of the Haifa, Nazareth, Jenin, Beisan sub-districts.
- (viii) *Upper and Lower Galilee.*
Parts of the Acre, Nazareth and the Safad sub-districts.

Thus the sub-districts as constituted at present define the Negeb almost exactly, the Maritime Plain tolerably well and the Central Range fairly well : but the fit is not good in the remaining physical divisions. On the other hand the adjustments required to make a good fit for the most important divisions do not appear to be numerous particularly if regard be had only for special parts of the Jordan Valley. The advantages of having a fixed framework of reference defined by the Maritime Plain, the Central Range (or hill country), the Beersheba Plain, the Jordan Valley and Upper and Lower Galilee, each division having its own unique characters requiring consistent treatment in economic development, must be sufficiently obvious as to require no further pleading ; and as will be seen from the succeeding paragraphs concerning climate, the natural divisions defined by topographical considerations are almost identical with those defined by climate. Put in another form this statement is no more than to say that the general climate of Palestine is varied by the topography of the country.

Apart from this close correspondence between climate and topography there is also a fairly close association between topography and the geological formation of the country. The succession of rocks in descending order is as follows¹ :—

<i>Era</i>	<i>System</i>	<i>Situation.</i>
Quaternary ..	Recent Diluvial } ..	Littoral, Ghor.
Tertiary ..	Pliocene ..	Coastal Plain, Ghor.
	Miocene ..	Shephelah.
	Oligocene ..	Unknown.
	Eocene ..	Nablus, north-east Palestine, western foot-hills and patches of south-west and south-east Palestine.

¹ *The Handbook of Palestine and Trans-Jordan.* H. C. Luke & E. Keith-Roach, 2nd edition, Macmillan & Co. 1930.

<i>Era</i>	<i>System</i>	<i>Situation.</i>
Secondary ..	Cretaceous ..	The common strata of the Hill Country.
	Jurassic ..	Wadi Farah, Wadi Hathira, Hadira.
	Triassic ..	Unknown in Palestine.
Primary ..	..	Not identified but probably exists in South Palestine (Aqaba area).
Archean ..	..	Palestine (Aqaba area).

According to the Geological Adviser to the Government¹, it may be said that

in Palestine metallic minerals of economic value are unknown and coal probably does not exist; nevertheless the country possesses an average of mineral wealth, and in a sense, it has unique resources, for the occurrences of potash and bromine in the Dead Sea are without parallel elsewhere on the earth.

Apart from the absence of metallic minerals, Palestine has a most interesting geological variety within the limits of its small area. In the Ghor (rift) that is the basin of the Jordan and the Dead Sea, which may be a continuation of the Great Rift of Central Africa, it possesses a geological feature of great significance. It is probable² that the theory that this rift was caused by subsidence must be replaced by a theory based on the general uplift of the Trans-Jordan plateau. Indications of petroleum are frequent in most parts of the country. The non-metallic minerals consist of alum, gypsum, rock phosphate, rock salt and sulphur. Of metallic minerals the presence of manganese has been reported in regions approaching Aqaba.

3. The climate of the Mediterranean basin presents features so well-marked that "Mediterranean climate" finds its place in the classification of world climates. It is a climate which is found in the world wherever certain conditions obtain. Such conditions are that it is characteristic only of western edges of continents and then only between certain degrees of latitude. All regions possessing this climatic type are bordered by hot deserts on the side near the equator and, in general, they, like these deserts, are hot and dry in summer with outblowing winds. In winter, however, they come under the influence of the westerly wind belt and so enjoy moist mild winters. Generally speaking the winters become colder with progress eastward, but the average winter temperature is over 40° F. In summer the mean temperature lies as a rule between 70° F. and 80° F. but often exceeds the latter. The rainfall varies but the typical average lies between 10 and 40 inches in the year. In exposed situations there is often a heavier fall. In such a climate, with moist and sometimes chilly winters and with hot dry summers, the plants need to utilize the water which accumulates during winter and to protect themselves against lack of moisture during the summer. Shallow-rooted herbs and grasses requiring an even distribution of rain in spring and early summer are not to be found in these regions. In their place are evergreen shrubs and trees with a ground vegetation of flowering shrubs and herbs, usually with deep roots and with small tough leaves having a coating of wax or fine hairs to prevent excessive transpiration. Fruits, whether citrous or deciduous, flourish in such climatic conditions, but, unless the annual rainfall of winter is heavy, it is rare to find great forests. Grains such as wheat and barley grow well having been adapted by man to the exigencies of the climate, but in the ripening of fruits and grains there is a certain incompatibility between the desirable heat of summer and the undesirable lack of water which is characteristic of the summer, and, consequently, irrigation by water from snow-fed mountain ranges has played a principal part in the development of regions of this type. The truly Mediterranean climate is found in regions to the north and north-west and west of

¹ *Mineral Resources of Palestine and Trans-Jordan* 1930. G. S. Blake, B.Sc., A.R.S.M., F.G.S., M.I.M.M.

² Blake *loc. cit.*

Palestine which lies between them and the associated hot deserts. Nevertheless Palestine to some degree displays the general characteristics of this typical climate influenced, however, by its proximity to the hot deserts and to regions possessing the temperate continental type of climate, and varied by its topography. The bulk of the country lies between latitude 30° N. and 33° N. on the west of the continent of Asia, and the hot deserts of Arabia, and Nubia lie between it and the equator. The summer is hot and dry except on the Maritime Plain, and the winter is cool and moist. The rainfall has two well-marked periods in each autumn and winter seasons. The former rain begins in late October and November and, on the average, is not large, but is important as marking the end of summer drought. The rainfall steadily increases during the months of December, January and February, begins to abate in March and is practically ended in April. The rains of March and April are the latter rains of Scripture and are of the utmost importance to agriculture. Hail and snow fall on the higher hills of the Central Range and thunderstorms are characteristic of the winter season. Frost is rare: but during summer nights very heavy dew is deposited, mitigating, to some extent, the severity of the summer drought. The characteristic winds are the moisture-laden inblowing west and south-west winds of winter and the dry north and north-west winds of summer. These summer winds are the outblowing winds of the regions of the Mediterranean basin lying to the north, influenced by the diurnal differences of the heating of sea and land which are the cause of daily sea-breezes and nightly land-breezes in Palestine as in all countries with a sea-coast. The rule as to outblowing summer winds in countries with a Mediterranean climate is not quite applicable to Palestine which lies in the track of winds outblowing from the truly Mediterranean regions to the north and north-west and inblowing into the hot deserts. As has been said above, the country is on the fringes of the hot deserts associated with the Mediterranean type of climate, and, for this reason, receives, as inblowing, summer winds that are outblowing from the territories more remote from these deserts. In great part, however, these summer winds traverse a portion of the sea and, while not able to precipitate moisture on a hot land, they serve to relax a heat that would otherwise approximate to that of the hot deserts. Desert heat is experienced in Palestine when the *shiroq* (from *sharq* meaning "east") or sirocco wind blows: this wind comes directly from the hot deserts from the south or the south-east or the east generally in late April and May and occasionally in late September and October. These winds are accompanied by abrupt rises in temperature, are quite dry and are laden with fine sand. They cause great discomfort to man, and, if too persistent or continuous, do positive harm to vegetation.

The mean annual temperature varies between 62° F. and 68° F. but somewhat extreme ranges of heat are found in summer around the Central Range; the winter temperature, however, rarely falls to freezing point. Humidity in summer is a characteristic of the coastal area. It follows that rainfall is of supreme importance to the life of the country. Examination of the records of rainfall of the last ten seasons at Jerusalem, Haifa, Gaza and Nazareth yields the following results:—

Station	Mean annual rainfall millimetres 1922-1931	Coefficient of * variation per cent.
1	2	3
Gaza	332.1	19.1
Jerusalem	419.5	30.9
Haifa	644.3	16.0
Nazareth	624.9	23.4

* The co-efficient of variation is the percentage ratio of the standard deviation to the arithmetic mean —F.M.

Ten years is not a long period in meteorological observation, but examination of the longer series of records available at these stations shows that the co-efficient

of variation is of the same order as that shown for the observations of ten years. The co-efficients are small showing that the variation in annual rainfall is small so that there is remarkable constancy in the annual volume of natural water supply. It is not less remarkable that with a constant annual rainfall of volume roughly equal to that of the rainfall of the east of England there have been in the history of the country few permanent constructions for the conservation of water. It is not untrue to say that the history of Palestine is to be interpreted in terms of a failure to conserve its supply of water. The general mean rainfall of the last ten years is, however, somewhat smaller than the mean annual rainfall of a series of years prior to the war¹; and, while the variability of rainfall is comparatively slight, the reduction in the quantity of rainfall has given cause for annual anxiety as to the prospects of agriculture and water conservation generally. As will be seen from Diagram No. 1 (Graph c presentation of rainfall), the areas on which the heaviest deposits of rain are found are on the summits of the hill country, described as the Central Range, and on Mount Carmel and on the summits of Upper Galilee. On the other hand the Jordan Valley receives practically no rain. Hence the rainfall is governed by topography, and a classification of natural divisions of the country based on rainfall is practically identical with the classification determined on purely geological and topographical considerations.

9. This brief description of the climate of Palestine is rendered necessary by consideration of the sociological factors that go to make a civilization. It is generally held that climate and civilization are directly associated, and undoubtedly the climate of the Mediterranean basin, favourable to man and plants alike, has nurtured some of the great civilizations of the world. Certain of these civilizations have left their impress on Palestine, and the hot desert region lying to the south of the country has also played, as it continues to play, a part in the destinies of the country. The Mediterranean climate undoubtedly conduces to ease of living and engenders a spirit of content. The hot desert climate on the other hand induces an irritable restlessness due to the unrelaxing strain after the necessities of life which is the cause of the historical migrations which have overwhelmed the country during different periods. These two influences of climate are found in the population of Palestine just as Palestine physically lies on the frontier between the two climatic types.

Due to the immigration of Jews from Europe another social effect of a different climatic type will now influence the history of Palestine. The cool temperate oceanic type of climate, which in Europe is sub-divided into the north-west European type and the central European type, is one which is the most favourable to the development of the human race. The continuous distribution of bleak days throughout the year particularly in north-west Europe is a stimulant leading to vigour of mind and body which, in turn, is causative of social efficiency of high degree. The cold desert climate of eastern Russia and the temperate continental climate of south eastern Europe are productive of other individual and social characters. The sociologist may well speculate on the effects and counter effects, the actions and reactions that will be brought into existence in the social experiment of introducing people, habituated by long years of tradition under these different climatic influences, and possessed, therefore, of qualities adapted to these environments, into a country the climate of which appears to nurture qualities of a different though not necessarily a less valuable order. Some of the effects in social organization, industrial activity and economic development will be measurable by means of censuses taken at regular intervals. The census taken in 1931 determines the points from which measurements can be made in the future.

10. Since the British Occupation of Palestine in 1917 there has been one enumeration of the people. That was done in October 1922, and its principal object appears to have been to determine the proportions of the religious communities in Palestine in order to set up the electoral machinery required for the establishment of the Legislative Council which was proposed at that time but which never came into being.

General comparisons between the census of 1922 and the census of 1931.

¹ This may suggest that the rainfall is cyclic with a definite period of years.—E.M.

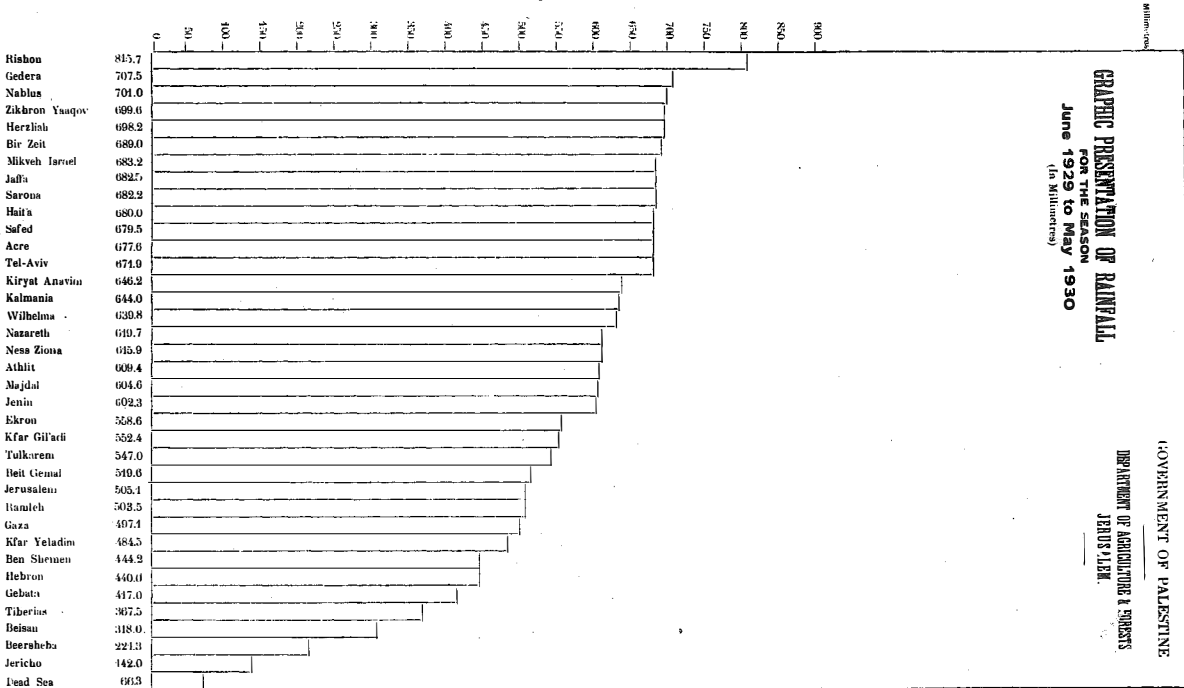
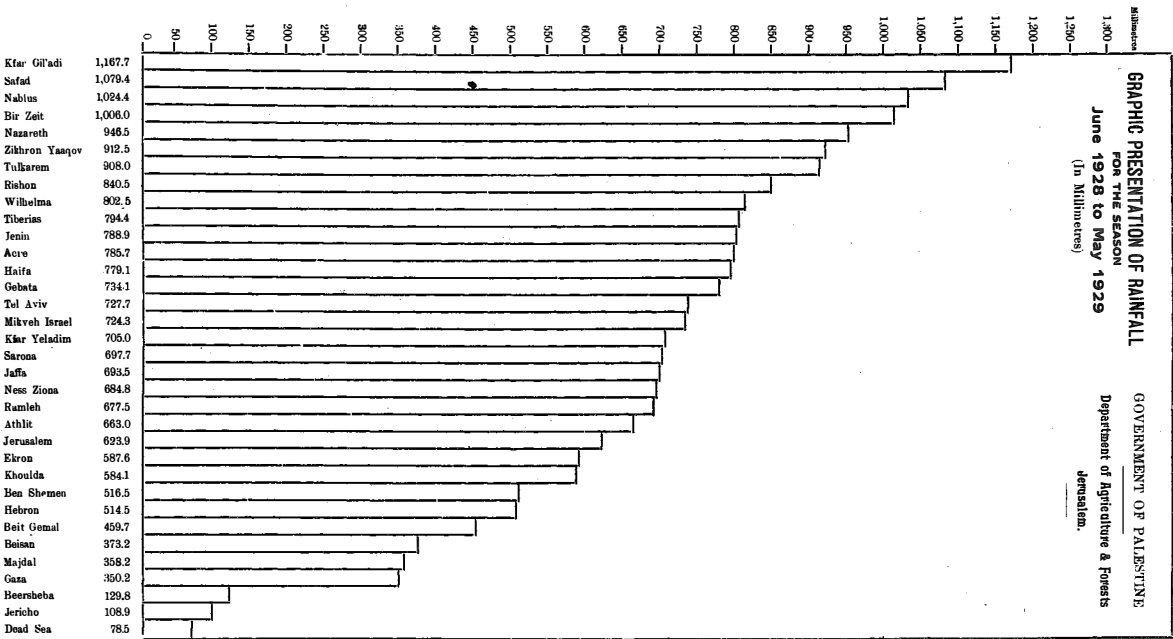


DIAGRAM No. 1.

There are practically no records of the census of 1922 to show what were the *quaesita* and the method by which the information was obtained. Judging from the Report of the Census 1922 (*Report and General Abstracts of the Census of 1922, taken on the 23rd of October, 1922.* Compiled by J. B. Barron, Esq., O.B.E., M.C., Superintendent of the Census) information was obtained as to numbers of population by districts, sub-districts and towns and by tribal areas in each sex and religion : and as to age and civil condition for sub-districts and districts. There seems to have been an intention to collect information as to the occupations of the people, but either the intention was abandoned or the information yielded was not susceptible of classification by the census machinery available at the time. The enumeration appears to have been done by clerical officers of the Government; but, seeing that on the average one enumerator was responsible for the enumeration of about 1,500 persons, it is certain that, in many cases, the information recorded could not have been obtained directly from the persons responsible for giving replies to the census questions, and must have been given indirectly through the agency of *Mukhatir* (village headmen) and the heads of *hamulehs* (the family clans) into which each village population is normally divided. Turning now to the information that was tabulated, the only tabulations, apart from those of the absolute figures of population of localities by sex and religion, which give an elementary idea of the social structure of the population, were those of age and civil condition by sex. The age groups were : 'Under 5 years', '5-15 years', '15-25 years', '25 years and over', and so give very little significant information, the intervals being absent above the age of 25 years. The tabulation for civil condition links together the numbers returned as divorced and widowed. This has been a common device where persons have been reluctant to return themselves as divorced, and have been allowed to return themselves as widowed, or would probably have untruthfully done so. On the other hand, objection has sometimes been taken to the single classification of divorced and widowed together on the ground that widowhood is an honourable condition whereas dissolution of marriage by divorce may not be so. In Palestine divorce may take place among Moslems and Jews in circumstances which do not necessarily constitute a reproach to either party, so that, on this ground, and on the general ground of the objection of some of the widowed to be classified with the divorced, there seems to be sufficient reason for classifying divorced and widowed persons separately as has been done in the tabulations of the census of 1931.

These difficulties alone make exact comparison between the results of the census 1931 and of the census 1922 difficult. Nevertheless, a measure of comparison is possible in expressing some of the characteristics proportionally, although it would not be justifiable to be dogmatic as to the conclusions to be drawn from the comparisons.

To these difficulties must be added the fundamental difficulties arising from the changes in administrative divisions since 1922 ; from the different methods of enumerating and classifying the nomadic population in 1922 and 1931 ; and finally from actual errors occurring in the location of certain tribes in 1922 in relation to the sub-districts constituted at that time. As has been pointed out in the earlier part of this chapter, such difficulties will always arise so long as the census is based on changing administrative divisions. On this present occasion some of the principal tables of the census 1922 have been recast to conform with the administrative divisions of the country as these were established at the time of the census 1931. For reasons that will appear later, this recasting was only possible in regard to certain of the tables of 1922 namely those showing the absolute numbers of the population by sex and religion in each district and sub-district. The revised tabulation is given in an Appendix included in Volume II of this Report.

The method of recasting the results of the census of 1922.

11. The census of 1931 yields statistics of four populations :—

- (i) The population of non-synchronous tracts in certain sub-districts, *i.e.* the tribal populations in the sub-districts of Gaza, Beersheba, Hebron, Bethlehem, Jericho, Jaffa, Ramle, and also a small number of gypsies in the Nablus sub-district enumerated in a special manner ;

- (ii) The settled population, *i.e.* the population which was enumerated completely in the manner provided by statute ;
- (iii) The municipal population, *i.e.* that part of the general population which was enumerated in areas of municipal jurisdiction including that of Tel Aviv ; and
- (iv) The total population which is the sum of the two populations described in (i) and (ii) above.

For purposes of comparison the population of 1922 must be similarly classified. Now, after having made allowance for errors in the localization of certain tribes, the tabulations of 1922 reveal correctly the tribal areas in each sub-district : but the correspondence with 1931 is only established if no regard is had to tribal areas shown in 1922 save in those sub-districts where non-synchronous tracts appear in 1931. For all other sub-districts the tribal population of 1922 must be merged into the settled population to correspond with the fact that in 1931 no tribal areas were recognized except those non-synchronous tracts where a special mode of indirect enumeration was adopted. In this way the population of 1922 is divided into four classes each of which corresponds to the like class established by the census of 1931. Before the method can be applied it is first necessary to make the changes required by the mutations in the district boundaries ; this having been done the result is a complete recast of the tabulations of 1922 to which the method can be applied. The method, however, cannot be applied to the tabulations for age and civil condition, because there is in existence no material to enable these tabulations to be made separately for both settled and tribal populations as defined above. These tabulations were in respect of the total population, and are comparable only with tabulations of the total population of 1931.

It may be added that the census authority at the time of the next census will have available all the slips¹ of the census record of 1931 so that, if it should be necessary to recast any or all of the tables of 1931 to conform with the framework of reference established for that census, there will be no difficulty in satisfying the necessities of the case except that of the time available for the completion of the census operations. The difficulty as to time will be negligible if a Statistical Office shall by then have been established.

12. Before the introductory section is closed it is necessary to state the basis of the presentation of the census results in relation to the population. The phrase "population of a district" proves, on examination, to be far from precise unless a definition is given to "population". The established machinery of many Administrations provides for the presentation of results on the basis of the *de jure* population : of other States, on the basis of the *de facto* population. The *de facto* population of a district comprises all persons present in the given district at a given moment, while the *de jure* population of that district comprises all those persons who are usual residents in the district, including those temporarily absent and excluding those only momentarily present. In France a distinction is drawn between these two populations and the "*population municipale*", which is equivalent to the *de jure* population less prisoners, inmates of institutions, members of garrisons and the like. The practice in the United States has varied, and in 1890 there were in use three conceptions of the population, each with its own specific definition. In general, however, all classifications depend ultimately on the two sets of ideas underlying the conceptions of *de facto* and *de jure* populations. In Palestine circumstances compel tabulations based on the two conceptions. The population consists primarily of a large settled majority and a small nomadic minority. The enumeration of the settled population was conducted on a *de facto* basis, while that of the nomadic population of Beersheba², which was, at the time of the census, scattered towards the northern parts of Palestine, was conducted on a *de jure* basis in relation to the sub-district of

Results presented on basis of *de facto* population.

¹ See the explanation on sorting and compilation given in the introduction.—E.M.

² And small elements in other sub-districts of the Southern district, which, however, are not truly nomadic and are evolving towards settled life.—E.M.

Beersheba to which these nomads are specially linked, no matter where they may be their physical presence. The administrative convenience of the *de facto* basis of enumeration is, of course, indisputable, and, if the census day is suitably chosen so that at the time there is little physical movement of population, there is almost complete correspondence between the *de facto* and the *de jure* populations. It will be seen in a later chapter that a census query as to the usual residence of persons enumerated was adopted for a purpose not relevant to the present discussion: it may have failed of that purpose, but, as a test of the correspondence between the *de facto* and the *de jure* populations of persons permanently resident and settled in Palestine, it shows a practical identity between the two populations, from which phenomenon it may be inferred that the date of the census was well chosen. If that had not been the case, and if the facilities of mechanical tabulation had been available, it would have been a relatively simple matter to have constructed the census results for a *de jure* population from the record of enumeration of the *de facto* population. If a population be homogeneous there is no great scientific value in adopting such refined methods. In Palestine the population is not homogeneous, and other resources not being available, the results have been tabulated on a geographical basis for the *de facto* population and also on the basis of religious confessions. The tabulation on the basis of religious confessions is founded on a conception which is akin to that underlying that of a *de jure* population. There is no necessary legal relationship between a person and the religion he professes, neither does his profession of a religion necessarily make that person a legal member of one of the recognized religious communities in Palestine¹. Nevertheless, there is a general correspondence between the populations of persons holding an identical faith and the religious communities within the spiritual jurisdiction of a hierarchy maintaining and ordering that faith as a human institution. It follows that tabulations on the basis of religious confessions are founded on a recognition of the special attachment of persons to the religious institutions recognized as part of the spiritual equipment of the several communities. Such tabulations partake of the nature of tabulations based on conceptions of unique legal relationships, and are thus to be treated as akin to tabulations on the basis of *de jure* populations. These distinctions are important in Palestine: Moslems, Jews and Christians all differ in respect of tradition, habit of life, standard of living and other functions of population. The census results are entirely misleading unless they are analysed in respect of these component populations. It will be abundantly confirmed in some of the later chapters that, however unfortunate it may appear to differentiate a population in respect of the religious confessions of its members, distorted or misleading views of the important factors operating on the life of the people are acquired by avoiding that differentiation. No statistician will use today the crude statistics of a heterogeneous population; and, indeed, in a country such as Switzerland where *canton* and community are both important, the census administration has adopted the complete conception of *de jure* relationships. Since, in Palestine, local government by districts is not developed, it suffices for most purposes at present to tabulate by religious confessions for the whole country, although, as will be seen later, in certain respects it is desirable to tabulate some results by smaller geographical divisions such as districts and sub-districts and also by religious confessions.

In summary the matter can be briefly stated in the following terms:—

- (i) The enumeration of the great majority of the population, defined as settled, was on the *de facto* basis;
- (ii) The enumeration of the nomadic population, a small minority, was on the *de jure* basis;
- (iii) The results for the settled population show that there is almost complete identity between the *de facto* and the *de jure* settled populations;
- (iv) The results show that *de jure* conceptions as regards religious groups are essential for an accurate survey of the condition and life of the people.

¹ For further explanation of the meaning of religious communities in Palestine in the legal sense see Chapters III and IV.—E.M.

AREA, DISTRIBUTION AND DENSITY.

13. The plane area of Palestine is estimated at 26,158 square kilometres inclusive of a water area (Dead Sea, the Sea of Galilee and Lake Huleh) of 675 square kilometres. The land area is thus 25,483 square kilometres¹. A slight increase of area has taken place since the census of 1922 as a consequence of the rectification of the northern boundary in 1922-1923. The following tables shows the apportionment of territory consequent on the rectification :—

SUMMARY OF CHANGES OF AREA OF PALESTINE SINCE 1922.*

Sub-districts	Area transferred to Syria from Palestine (—) square kilometres	Area transferred from Syria to Palestine (+) square kilometres	Area transferred to Trans-Jordan (—) square kilometres
Acre Sub-district	— 3.25	60.25	..
Safad Sub-district	— 7.25	226.50	..
Tiberias Sub-district .. .. .	..	20.75	— 18.25
Beisan Sub-district .. .. .	..	..	— 50.50
Net gain since 1922 + 228.25	— 10.50	+ 307.50	— 68.75

* Figures supplied by the Director of the Department of Surveys.

The sub-district of Beersheba is by far the largest in area, while that of Jaffa is the smallest. The tabulation of the results by administrative divisions will reveal therefore large variations due to the lack of correspondence between social and economic clusterings of population and divisions devised to meet the requirements of close administration.

14. The main statistics will be found in Tables I, III, IV, VI and VII in Volume II of this Report, and the following Subsidiary Tables will be found at the end of this chapter :—

- Subsidiary Table I.* — Distribution of total population and area by administrative divisions.
- Subsidiary Table II.* — Density of population and proximity of persons.
- Subsidiary Table III.* — (a) Distribution of total population according to density.
(b) Distribution of rural population according to density.
(c) Distribution of urban population according to density.
- Subsidiary Table IV.* — Distribution of the settled population between towns and villages.
- Subsidiary Table V.* — Towns classified by population.
- Subsidiary Table VI.* — Number per mille of the total population and of each main religion who live in towns.
- Subsidiary Table VII.* — Certain statistics of towns.
- Subsidiary Table VIII.* — Persons per house and houses per square kilometre. (For the settled population only).

¹ Expressed in square miles the total area is 10,100 square miles, the land area being 9,839 square miles. The figures have not the sanctity of complete accuracy since the sub-district of Beersheba has not been surveyed and its area is considerable.—E.M.

The population enumerated as at midnight on the 18th of November, 1931, consisted of 1,035,821 persons of whom 66,553 were enumerated under the special system adopted for nomads. The provisional total, declared within 20 hours of the enumeration, was 1,035,154 persons. There was thus an error of only 0.06 per cent. on the correct total. The general distribution of the population in the districts and sub-districts is illustrated in Diagram No. 2.

Accuracy
of the
statistics.

The substantial accuracy of the total figures for the country is unchallengeable. Elaborate precautions were taken to ensure completeness of record¹. It will be seen later that, as in all other countries, a number of very young children under one year of age were probably omitted from the record of enumeration. In addition, there were a number of Jews, opposed to the census on political grounds, who endeavoured to evade the administrative network. In most cases the numbers and the sex of these persons were obtained from indirect sources, although, in other personal particulars, the record is deficient: in other cases, summary proceedings for offences under the Census Ordinance, 1931, sufficed to elicit the numbers and the sex of the delinquents. Apart from the omission of young infants incidental to all censuses, the record may be taken as accurate to 0.01 per cent. and perhaps less. The question of the omission of young infants is fully discussed in Chapter V (Age). It will be seen that the error on this account is fairly serious but not worse than in European countries, and that it occurs in the Moslem community and not in the Jewish or Christian communities. In comparative work the error is of small importance since it occurs at every census and its proportionate magnitude in relation to the complete population aged 0-1 years appears to be fairly constant.

The median
of area and
population.

15. An interesting relation between area and distribution of population is given by the distance between the median of area and the median of population. The median of area is a point such that a line drawn through it from West to East divides the area equally North and South; and a line drawn through it from South to North divides the area equally East and West. The median of population is a point with a similar relation to the distribution of population.

The map given in Diagram No. 3 shows both points. The median of area is near Dhaheriyeh in the Hebron sub-district and is at the point defined by Longitude 35°01' E. and Latitude 31°25' N. The median of population is near Deir Ghassaneh on the northern boundary of Ramallah sub-district, and is at the point defined by Longitude 35°04' E. and Latitude 32°03' N.

The median of population thus lies six kilometres east and seventy kilometres north of the median of area. It is of some interest that the median of population lies just north of the boundary between the ancient kingdoms of Judah and Israel.

The distance between the two medians is striking evidence of the emptiness of the southern parts of Palestine in respect of population. If development be possible south of Beersheba then the consequence of the resultant migration of people to that area will be the movement of the median of population towards the median of area.

Another conception of the distribution of population is given by the centroid of population, which is a point corresponding to the centre of gravity of a material object. The position of the centroid of population has not been determined; but the emptiness of the southern regions and of the eastern parts of Palestine adjacent to the Jordan Valley gives it a position somewhat to the north and west of the median of population.

Density.

16. The relations subsisting between the populations of the administrative areas and the populations are expressed in Subsidiary Table No. I at the end of this chapter. The two most significant features are in respect of the Beersheba sub-

¹ I authorized a large sea-going steamship in Jaffa Port with a large complement of foreign passengers (about 400) not connected with Palestine to lie outside Palestine waters during the night on the ground that the executive officers of the ship were unable to complete the census record between the time of the ship's arrival in the evening and the time of departure on the following morning.—E.M.

district, the area of which is about 47 per cent. of the area of the country and the population of which is about 5 per cent. of the total population ; and of the Jaffa sub-district, the area of which is not quite 1.5 per cent. of that of the country, and the population of which is about 14 per cent. of the total population.

The mean density of the population of a district is expressed as the number of persons assumed to be distributed uniformly over the district per unit of square measure ; that is, it is the ratio of the total population of the district to the total area of the district expressed in the chosen units of square measure. Diagram No. 4 (Density map) illustrates the population densities of the sub-districts of Palestine, the actual figures being found in Subsidiary Table No. *II*. These densities are based on the total populations of the sub-districts and therefore make no distinction between urban and rural populations. There is naturally less variation in the densities of the rural population than in those of the total population. In the total population related to sub-districts, the density varies between 434 persons per square kilometre in the Jaffa sub-district to 4 persons per square kilometre in the Beersheba sub-district. The variations in the densities are illustrated in Diagram No. 5 where the rectangles associated with the sub-districts show in striking manner the relations between populations and areas. The base of each rectangle is proportional to the area of the sub-district with which it is associated, while the vertical side of the same rectangle is proportional to the population density of the sub-district. The area of each rectangle, therefore, represents on the assigned scales the total population of the sub-district with which the rectangle is associated. It will be seen that the rectangle for Beersheba sub-district is little more than a thick line while that for Jaffa sub-district is a tall narrow column. The Jerusalem sub-district ranks immediately after Jaffa sub-district in regard to density of population, the Haifa sub-district taking third place. The densities in these three sub-districts are of course, dominated by the urban populations of Jerusalem city, Jaffa and Tel Aviv towns, and Haifa town. The comparative smoothness of the densities in the sub-districts of the Northern district, other than Haifa sub-district, indicates a crude uniformity of the conditions of life as determined by the relation between populations and the areas on which they subsist.

Another method of showing explicitly the relations between populations and areas is to suppose that the population of a district is distributed uniformly over the district and then to determine the linear distance between near neighbours. Proximity.

A uniform distribution is an arrangement known to fruit-growers as a *quincunx*. Not only is this distribution uniform but it is the most economical arrangement that can be devised¹ for discrete units in a given area, each unit forming equilateral triangles with its nearest neighbours. If d be the distance between nearest neighbours and n be the number of persons (or occupied houses or villages if the number be sufficiently great) per 100 square kilometres, then² d is given by the equation :—

$$\log_{10} d = 1.031235 - \frac{1}{2} \log_{10} n$$

The proximity, or distance between nearest neighbours, is given for the whole country and the sub-districts in Subsidiary Table No. *II*. Certain of the proximities are illustrated in Diagram No. 6. These relations express in striking

¹ I have been struck by the number of orange groves in the country in which the *quincunx* is not used. Provided that the most economical pattern is not objectionable on agricultural grounds for this class of fruit, some orange groves would give slightly higher yields if this arrangement were adopted.—E.M.

² The proof is very simple. The system of equilateral triangles gives three sets of equilateral hexagons covering the whole area where the number of points is sufficiently great. The three sets of hexagons contain the same number of hexagons. If there be N hexagons in a set then the area of N hexagons is equal to the area (100 square kilometres) containing the n points. Also it can be shown that $n = 3N$

$$\begin{aligned} \text{Area} &= 100 \text{ square kilometres} = N (\text{area of one hexagon}) \\ &= N (6 \times \text{area of one triangle}) \\ &= 3N \cdot 3\frac{1}{2} \frac{n \cdot 3\frac{1}{2}}{2} d^2 = \frac{n \cdot 3\frac{1}{2}}{2} d^2 \therefore d^2 = \frac{200}{n \cdot 3\frac{1}{2}} \end{aligned}$$

whence the equation in the text follows.—E.M.

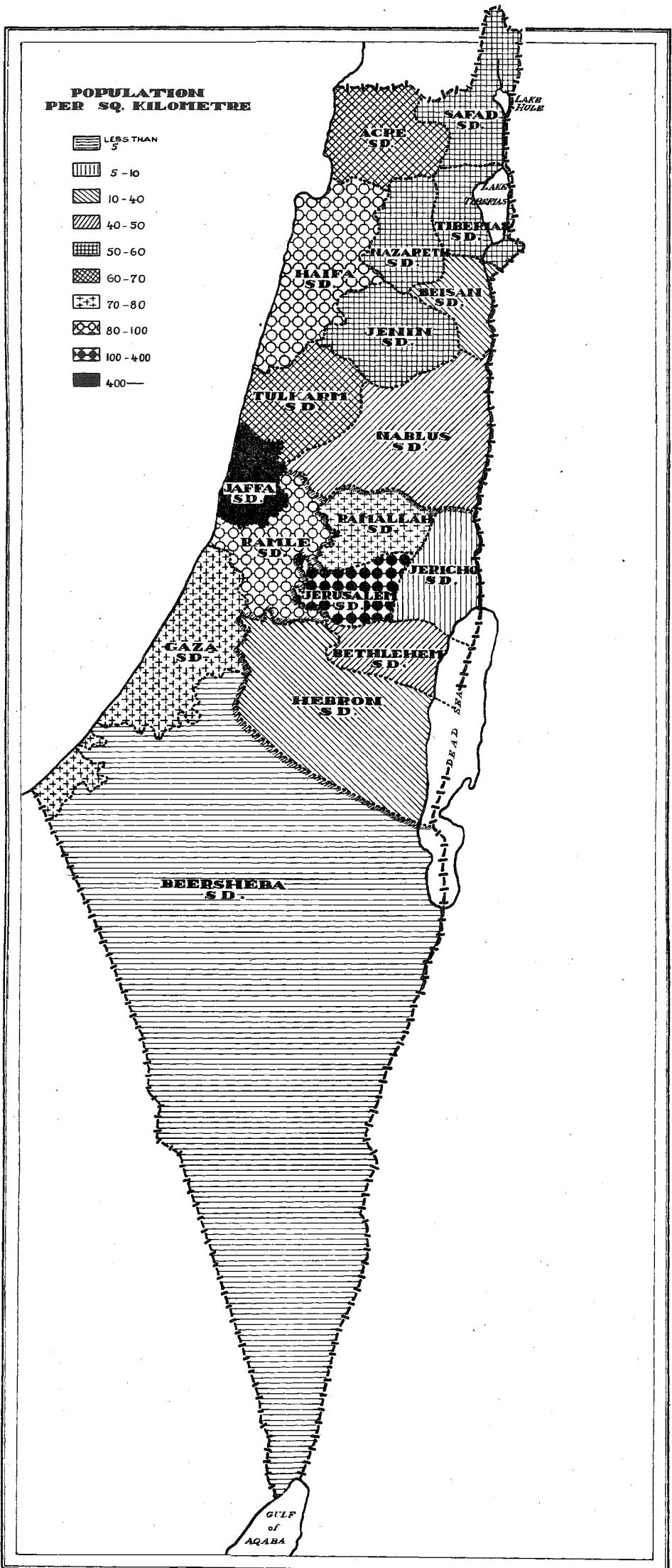


DIAGRAM No. 4

PALESTINE
RELATION BETWEEN POPULATION
AREA AND DENSITY OF
POPULATION.

SCALE
 HORIZONTAL: 1CM = 2000 SQ. KILOMETRES.
 VERTICAL : 1CM = 10,000 PERSONS PER 100 SQ. KILOMETRES.
 0.25Q. CM = 50,000 PERSONS

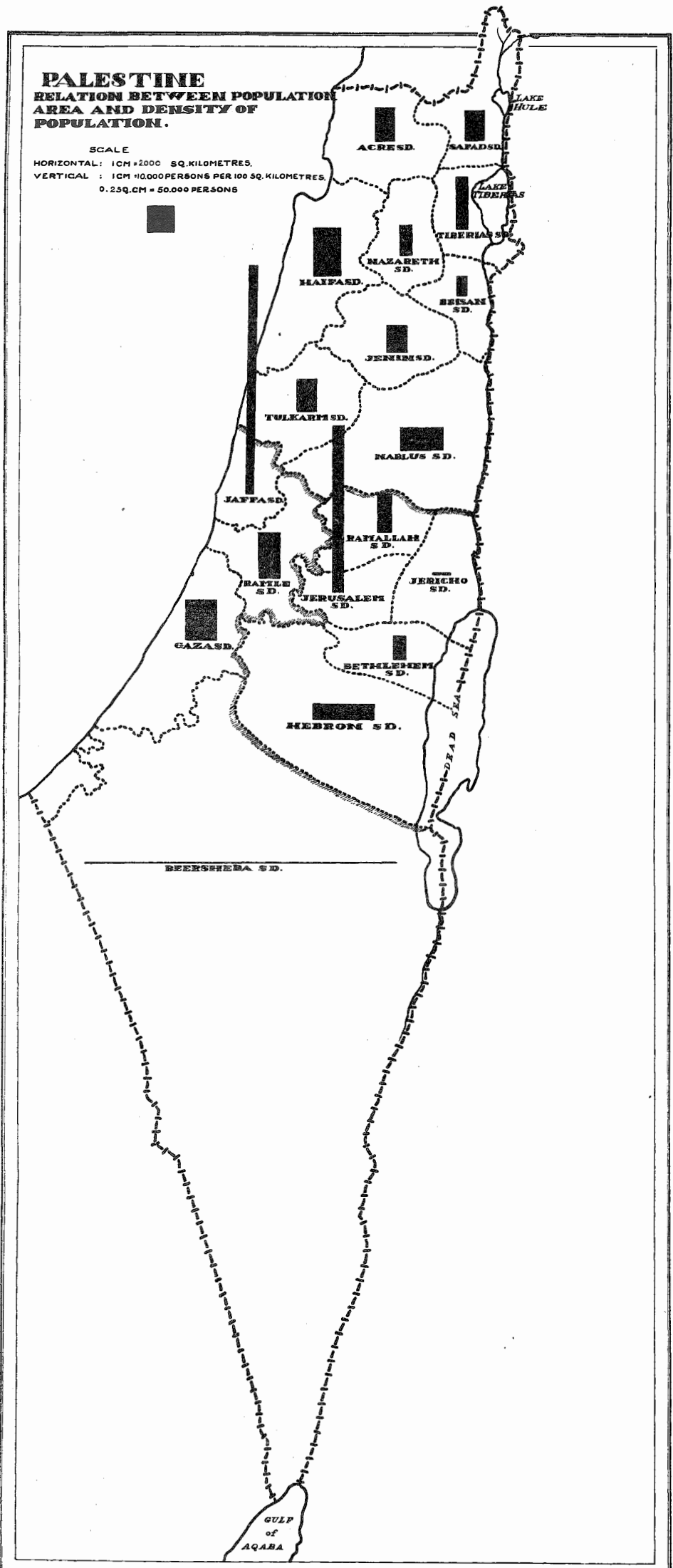


DIAGRAM No. 5

PROXIMITY IN METRES OR POPULATION ASSUMED
TO BE UNIFORMLY DISTRIBUTED
1 cm. = 200 metres
1/20,000

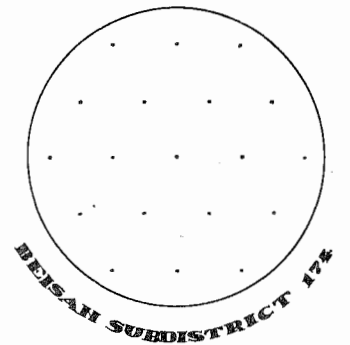
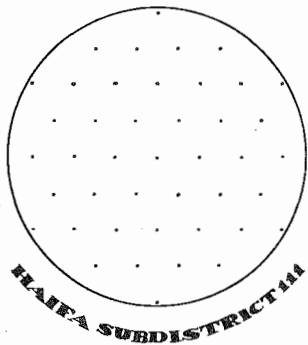
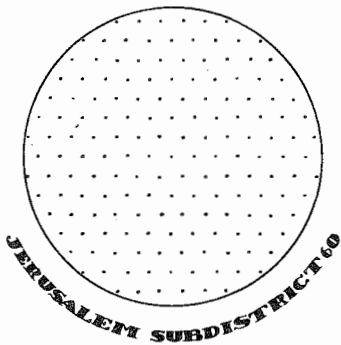
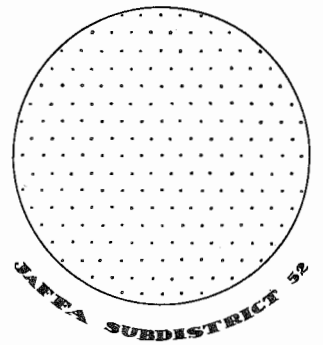
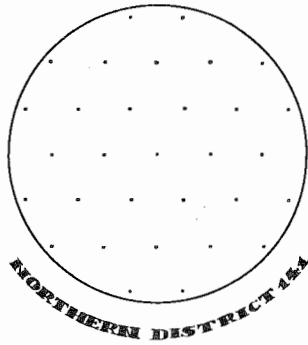
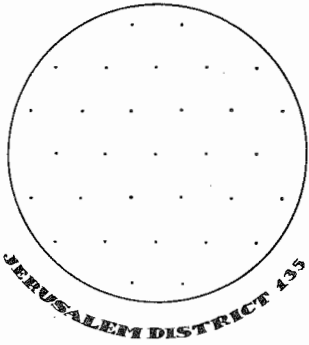
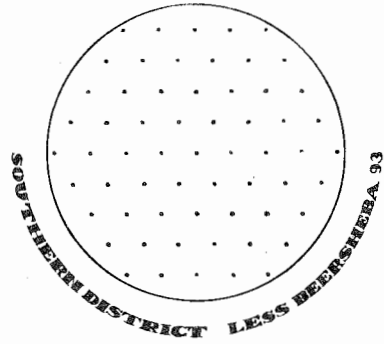
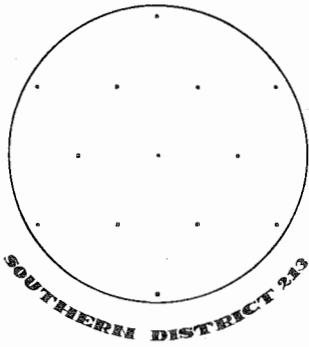
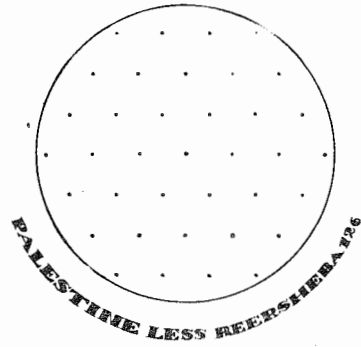
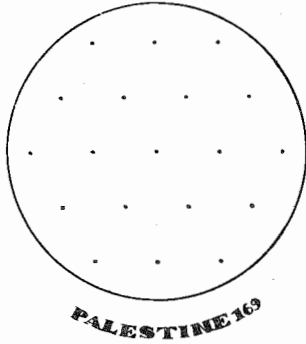


DIAGRAM No. 6

manner the effects of the lack of population in the Beersheba sub-district. If, for example, the Southern district less Beersheba sub-district with a proximity between neighbours of 93 metres be an elastic sheet capable of being stretched to any shape, and the sheet be stretched to include the Beersheba sub-district, near neighbours are torn apart by 120 metres so that their proximity becomes 213 metres. The sub-district of Beisan is interesting in view of developments of perennial irrigation in that area. The distance between neighbours in uniform distribution of population in that sub-district is 5 metres greater than the similar distance between neighbours in all Palestine including Beersheba sub-district.

17. A more detailed analysis of the relations between population and density is given in Subsidiary Table No. *III* where the population is classified by density in the administrative divisions of the country. The table contains three sections for the total, the rural and the urban populations respectively. Only in the first section relating to the total population are the percentage distributions of area and population by density given.

Regarding Palestine as a whole, it will be seen that 14.1 per cent. of the total population live in areas with a mean density of 434 persons per square kilometre, and that these areas amount to only 1.4 per cent. of the total area of the country. At the other end of the range 5.3 per cent. of the total population live in areas with a mean density of 4-5 persons per square kilometre, and these areas form 49.2 per cent. of the total area of the country.

The Jerusalem sub-district with a mean density of 316 persons per square kilometre also gives a marked disparity between proportions of total area, 1.6 per cent., and of total population, 12.8 per cent. There is no marked disparity between the proportions of areas and populations of tracts with mean densities rising by intervals of 10 from 30 persons to 100 persons per square kilometre. The district distributions, of course, exhibit the three main disparities in more emphatic manner: in addition there is an evident disparity in the Hebron sub-district with a mean density of 30-40 persons per square kilometre, of which the area is about one half of the Jerusalem district and the population one quarter, thus showing the influences of the desert regions to the south and the east, which find their most marked effect in the Beersheba sub-district.

The Northern district is rather remarkable in the correspondence between the proportions of area and population associated with the series of densities.

Density by
natural
division.

18. It has already been stated that no natural divisions have been declared in Palestine, and that the statistics of a population on the basis of administrative divisions which are not coincident with natural divisions may show an arbitrariness caused primarily by the lack of correspondence between natural conditions and administrative convenience. The following table represents an attempt to deal with such difficulties. A scheme of natural divisions based on the general considerations given in the introduction, has been drawn up and the areas and populations of these divisions have been determined. The scheme is, of course, itself arbitrary, being the composition of individual judgment: but, granted a primary division of the country into Maritime Plain, Central Range, Jordan Valley, Esdraelon and Emek, Galilee and the Negeb, objections can be raised only in regard to the exact limits of these areas, so that argument is confined to judgments of the rightness or wrongness of the boundaries¹. The margins for argument are wide enough, and no special authority attaches to the details of the tentative scheme here put forward. On the other hand, it is generally unlikely that the results of another disposition of territory by natural divisions would differ so largely from those obtained from the tentative scheme as greatly

¹ Thus part of the Jenin sub-district might very well be included in Esdraelon and the Emek; the northern part of the Nazareth sub-district might properly be considered as being in Galilee; the Jordan valley might also be held to include the eastern parts of the Bethlehem and Hebron sub-districts; the Shephelah might be considered either as part of the Central Range or part of the Maritime Plain; and the like. But I have aimed at simplicity in order to illustrate my thesis. It will be seen later that the Commissioner of Lands and the Director of Surveys have a more exact scheme which, however, is not sufficiently developed to be of use for census purposes.—E.M.

to affect the proportional statistics based on these results. The resulting table is given below :—

A TENTATIVE DISTRIBUTION OF THE POPULATION BY APPROXIMATE NATURAL DIVISIONS.

NATURAL DIVISION	Composition of natural division by sub-districts or parts thereof	Approximate area sq. kilometres	POPULATION			Proportions in natural divisions of		Mean density per sq. kilometre in natural divisions
			Persons	Males	Females	Area	Popula-tion	
PALESTINE ...	... ..	25,483	1,035,821	526,680	509,141	100	100	40
Nejeb ...	... ..	11,872	51,082	27,689	23,393	46.6	5.0	4
	Beersheba Sub-district .	11,872	51,082	27,689	23,393	...	...	4
Jordan Valley ...	... ..	1,126	3,483	2,170	1,313	4.4	0.3	3
	Jericho Sub-district ...	676	3,483	2,170	1,313	...	...	5
	*Eastern part of Nablus Sub-district ...	450	...	...	...	...	...	...
Maritime Plain ...	... ..	3,777	395,350	202,433	192,917	14.8	38.2	105
	Gaza Sub-district ...	1,196	94,634	47,069	47,565	...	...	79
	Jaffa Sub-district ...	335	145,502	75,231	70,271	...	...	434
	Ramle Sub-district ...	814	70,579	36,649	33,930	...	...	87
	Tulkarm Sub-district ...	751	46,228	23,466	22,862	...	...	62
	†Haifa Sub-district south of Carmel. ...	681	38,307	20,018	18,289	...	...	56
Central Range ...	... ..	5,570	373,196	185,071	188,125	21.8	36.0	67
	Hebron Sub-district ...	2,120	67,631	34,056	33,575	...	...	32
	Bethlehem Sub-district ...	520	23,725	11,560	12,165	...	...	46
	Jerusalem Sub-district...	420	132,661	66,612	66,049	...	...	320
	Ramallah Sub-district...	542	39,062	18,803	20,259	...	...	72
	‡Nablus Sub-district west of Jordan Valley ...	1,168	68,706	33,772	34,934	...	...	59
	Jenin Sub-district ...	800	41,411	20,268	21,143	...	...	52
Esdraelon & Emek ...	... ..	1,696	127,855	66,362	61,493	6.7	12.3	75
	†Haifa Sub-district north of Carmel ...	341	57,165	30,504	26,661	...	...	168
	Nazareth Sub-district ...	507	28,592	14,077	14,515	...	...	56
	Beisan Sub-district ...	395	15,123	8,045	7,078	...	...	38
	Tiberias Sub-district ...	453	26,975	13,736	13,239	...	...	60
Galilee ...	... ..	1,442	84,855	42,955	41,900	5.7	8.2	59
	Acre Sub-district ...	730	45,142	23,177	21,965	...	...	62
	Safad Sub-district ...	712	39,713	19,778	19,935	...	...	56

* Approximate estimate of area of a strip 45 kilometres long and 10 kilometres broad west of the river Jordan and an assumption that the population is so small as to be negligible in the degree of accuracy possible.

‡ Approximate, being the difference between the area of Nablus sub-district and the allowance made for the Jordan Valley.

† The area of Haifa sub-district has been taken to be one third lying north of Carmel range and two thirds lying in the south. The populations have been determined from the Village Census Registers adjusted to the line of the Carmel range.

Most observers will attach first importance to the relative features of the Maritime Plain and the Central Range. The Maritime Plain, having an area of 14.8 per cent. of that of the whole country and a population of 38.2 per cent. of the total population, gives a mean density of 105 persons per square kilometre. The Central Range (sometimes known as the hill country) has an area 21.8 per cent. of that of the country and a population of 36 per cent. of the total population, and its mean density is 67 persons per square kilometre. Thus the Central Range is about half as large again as the Maritime Plain and supports a population not greatly different in magnitude from that supported by the Maritime Plain.

If the urban populations of Jaffa, Tel Aviv, Jerusalem and Haifa be excluded¹ the mean densities for the main natural divisions are :—

Maritime Plain	78 persons per square kilometre.
Central Range	51 " " " "
Esdraelon and Emek	46 " " " "
Galilee	59 " " " "

Hence the mean density in the hill country is 65 per cent. of that in the plains, or, if the urban population be included, 64 per cent.

It will be appreciated, therefore, that the disparity between the densities of the Maritime Plain and the Central Range is significant not only in respect of the total population but also in respect of the rural population. Consequently there is a real statistical necessity for treating the social characters of the populations of natural divisions specifically and there is an element of arbitrariness and distortion in the tabulations based on administrative divisions². These densities reveal that the amount of land per person in each of the natural divisions is :

	<i>Metric dunams³</i> <i>per person</i>
Maritime Plain	12.8
Central Range	19.6
Esdraelon and Emek	21.7
Galilee	17.0

The mean amount of land available for each person of the rural population includes, of course, cultivable and non-cultivable areas, so that the amount of land per person which is cultivable according to any definition is smaller than the mean quantities shown⁴. It will be seen in a later section of this chapter that the average size of an Arab agricultural household is rather more than 4.5 persons, and it will also be shown in a later chapter that the average number of dependants per Arab earner in agriculture is 3 persons, so that there is almost exact correspondence between the familial household and the familial unit dependent for their subsistence on agriculture, namely 4.5 persons, of whom one is the principal earner⁵. If rural households were distributed uniformly over the natural divisions the amount of land (cultivable and uncultivable) available for each household would roughly be :—

<i>Natural division</i>	<i>Metric dunams per</i> <i>household</i>
Maritime Plain	58
Central Range	88
Esdraelon and Emek	98
Galilee	77

Beyond the fact that it is known that the proportion of cultivable⁶ land in the Maritime Plain is considerably greater than it is in the Central Range, no reliable

¹ In strictness the areas of the towns ought also to be excluded, but they are small and in any case have been composed on different principles in the several cases, so that there is advantage in regarding the urban populations as concentrated at points.—E.M.

² This is particularly the case in such matters as vital occurrences, births and deaths, migration, sex-ratios and other statistical functions of biostatistical character. The ideal tabulations would, indeed, be founded upon natural divisions including towns, natural divisions excluding towns, and finally urban population considered separately. Some discussion on the variation of the population on the basis of natural divisions will be given in the next chapter, and a reference will also be made to the matter in Chapter VI (Sex). It is not possible, however, to pursue in this Report most of the investigations on this convenient basis, but it should be remembered throughout the succeeding chapters that some of the comparative statistics may be vitiated by artificialities introduced into classifications founded on administrative divisions.—E.M.

³ A metric dunam is equivalent to 1,000 sq. metres.—E.M.

⁴ There are no census statistics concerning either cultivable land or the *lot viable*, so that no exact discussion is possible in regard to these matters. In any event the conception *lot viable* lacks a certain precision, and its statistical treatment requires artificial and arbitrary definition of the term.—E.M.

⁵ More exactly ten Arab households of 45 persons comprise 11 Arab earners and 34 Arab dependants.—E.M.

⁶ I use the word "cultivable" without definition since the argument is valid for any definition. Incidentally, there appears to be a perfectly precise definition in local usage of uncultivable land: it is "land on which *turmus* will not grow".—E.M.

statistics are yet available as to the exact proportion of cultivable and uncultivable land in Palestine, although various estimates have been made from time to time¹. It is necessary, however, to bear in mind that the figures given above relate to the totality of land, so that the area available for the subsistence of a rural family in any natural division is smaller than that stated.

19. The importance of these matters is sufficiently impressive to justify a scrutiny of such information as is available from agricultural records. The subjective returns of agriculturists have a high degree of reliability in all countries in the world and, during 1932, independently of the census taken in 1931, the Department of Agriculture compiled statistics, relating to land, derived from information given by the peasants themselves and also from estimates made by agricultural officers². In many respects the information so collected is the most important contribution to public knowledge of the distribution and utilization of land yet made. The following table relating to Palestine and its administrative divisions omitting the Beersheba sub-district gives the details:—

Agricultural statistics.

CERTAIN AGRICULTURAL STATISTICS.—DISTRIBUTION OF LAND IN PALESTINE.

(a) ABSOLUTE FIGURES.

(Metric dunams)

(1) District and Sub-district	(2) Total area	(3) Area utilized (cultivated, grazing, forests, state domain)	(4) Area unutilized (swamps and dunes)	(5) Area irrigated (Included in (3))				(6) Area not accounted for (2)-(3)-(4)
				Total	Crops	Vegetables	Fruits	
Palestine less Beersheba...	13,611,000	8,492,291	239,338	262,276	123,939	34,897	103,440	4,879,371
Southern District less Beersheba ...	2,345,000	2,000,108	129,900	80,822	1,040	15,743	64,039	214,992
Gaza Sub-district ...	1,196,000	1,001,267	75,500	17,659	...	7,114	10,545	119,233
Jaffa Sub-district ...	335,000	292,266	16,900	33,783	60	769	32,954	25,834
Ramle Sub-district ...	814,000	706,575	37,500	29,380	980	7,860	20,540	69,925
Jerusalem District ...	4,278,000	2,080,483	...	57,102	45,100	6,026	5,976	2,197,517
Hebron Sub-district ...	2,120,000	885,193	...	635	...	325	310	1,234,807
Bethlehem Sub-district ...	520,000	151,000	...	175	...	50	125	369,000
Jerusalem Sub-district ...	420,000	369,540	...	1,228	...	796	432	50,460
Jericho Sub-district ...	676,000	195,800	...	53,550	45,100	4,000	4,450	480,200
Ramallah Sub-district ...	542,000	478,950	...	1,514	...	855	659	63,050
Northern District ...	6,988,000	4,411,700	109,438	124,352	77,799	13,128	33,425	2,466,862
Tulkarm Sub-district ...	751,000	512,386	18,734	13,747	...	326	13,421	219,880
Nablus Sub-district ...	1,618,000	1,048,942	...	31,005	25,240	3,320	2,445	569,058
Jenin Sub-district...	800,000	515,664	400	3,124	1,383	1,324	417	283,936
Nazareth Sub-district ...	507,000	375,176	3	1,118	...	424	694	131,821
Beisan Sub-district ...	395,000	381,087	87	44,530	41,736	818	1,976	13,826
Tiberias Sub-district ...	453,000	267,716	...	8,536	4,302	2,102	2,132	185,284
Haifa Sub-district...	1,022,000	692,341	44,115	7,968	...	2,090	5,878	285,544
Acre Sub-district ...	730,000	355,592	26,027	8,028	...	1,970	6,058	348,381
Safad Sub-district...	712,000	262,796	20,072	6,296	5,138	754	404	429,132

¹ Since writing these paragraphs I have had the advantage of seeing some figures prepared for the Commissioner of Lands by the Director of Surveys in regard to areas of types of land in the Maritime Plain. Not unexpectedly my general definition of the Maritime Plain agrees fairly closely with the definition of the Coastal Plain adopted by the Commissioner of Lands. There is, of course, a greater exactitude about the latter's definition because he has fixed the eastern boundary of the coastal plain by reference to contours. Parts of Tulkarm and Ramle sub-districts disappear from the coastal plain, whereas my definition of the Maritime Plain includes both sub-districts in their entirety. Also that part of the Haifa sub-district included in the Coastal Plain is smaller than that part of it included in the Maritime Plain. I have not had time to compare the population of the Coastal Plain with that of the Maritime Plain: but my general impression is that the areas excluded from the latter are less dense in population than the general average, so that the density of the Coastal Plain is probably somewhat higher than that of the Maritime Plain. But, for purposes of general review, the correspondence between the two plains is sufficiently close to enable a statement to be made that the cultivable land of the Maritime Plain is about 82 per cent. of the whole area; so that the average size of the holding of households in that natural division is about four fifths of that stated in the table. For purposes of the inquiry by the Director of Surveys, cultivable land means all land except that which is never cultivated according to the subjective statements of the peasants.—E.M.

² The statistics were compiled at my request and I am under heavy obligations to all those officers who expended much time and labour on their preparation.—E.M.

(b) PROPORTIONATE DISTRIBUTION.

(1) District and Sub-district	(2) Proportion of utilized land to total land. Per cent.	(3) Proportion of swamps and sand dunes to total land. Per cent.	(4) Proportion of land not accounted for. Per cent.	(5) Proportion of irrigated land to total land. Per cent.	(6) Proportion of irrigated land to utilized land. Per cent.	(7) Proportion of irrigated land under			(8) Average annual rainfall. Millimetres
						Crops. Per cent.	Vegeta- bles. Per cent.	Fruits. Per cent.	
Palestine less Beersheba...	62	2	36	1.9	3.1	47.3	13.3	39.4	...
Southern District less Beersheba ...	85	6	9	3.4	4.0	1.3	19.5	79.2	...
Gaza Sub-district ...	84	6	10	1.5	1.8	...	40.3	59.7	19 years 391.1
Jaffa Sub-district ...	87	5	8	10.1	11.6	0.2	2.3	97.5	4 " 562.1
Ramle Sub-district ...	87	4	9	3.6	4.2	3.3	26.8	69.9	3 " 531.4
Jerusalem District ...	49	...	51	1.3	2.7	79.0	10.6	10.4	...
Hebron Sub-district ...	42	...	58	...	0.1	...	51.2	48.8	19 " 580.3
Bethlehem Sub-district ...	29	...	71	...	0.1	...	28.6	71.4	...
Jerusalem Sub-district ...	88	...	12	0.3	0.3	...	64.8	35.2	29 " 561.4
Jericho Sub-district ...	29	...	71	7.9	27.3	84.2	7.5	8.3	7 " 128.4
Ramallah Sub-district ...	88	...	12	0.3	0.3	...	56.5	43.5	...
Northern District ...	63	2	35	1.8	2.8	62.6	10.6	26.8	...
Tulkarm Sub-district ...	68	3	29	1.8	2.7	...	2.4	97.6	8 " 591.7
Nablus Sub-district ...	65	...	35	1.9	3.0	81.4	10.7	7.9	8 " 658.3
Jenin Sub-district... ..	64	...	36	0.4	0.6	44.3	42.4	13.3	9 " 499.9
Nazareth Sub-district ...	74	...	26	0.2	0.3	...	37.9	62.1	24 " 630.1
Beisan Sub-district ...	96	...	4	11.3	11.7	93.7	1.8	4.5	4 " 293.2
Tiberias Sub-district ...	59	...	41	1.9	3.2	50.4	24.6	25.0	26 " 451.2
Haifa Sub-district ...	68	4	28	0.8	1.2	...	26.2	73.8	18 " 634.4
Acre Sub-district ...	49	3	48	1.1	2.3	...	24.5	75.5	5 " 652.4
Safad Sub-district... ..	37	3	60	0.9	2.4	81.6	12.0	6.4	7 " 836.6

It is important to bear in mind that the statistics are based on the subjective declarations of the cultivators themselves. It is of the greatest interest to note that the proportion of utilized land in the Southern district less Beersheba sub-district is 85 per cent., and in the Tulkarm and Haifa sub-districts is 68 per cent. These sub-districts excluding part of the Haifa sub-district north of Carmel have been taken as composing the Maritime Plain, and, on grouping them together for the whole natural division in the manner indicated earlier, it will be found that the proportion of land actually utilized is about 78 per cent.¹ It follows that the effective average holding on the Maritime Plain is about 80 per cent. of the average holdings in the same area given at the end of the preceding paragraph, or about 47 metric dunams. On constructing the natural division of the Central Range in the same way, it will be found from the table given above, that only 60 per cent. of the available land is utilized, so that the effective holding of the average household in this area is about 53 metric dunams as against a total average holding of 88 metric dunams.

The remaining natural divisions can be treated in the same manner²; but enough has been said to indicate that there is a significant difference between the total amount of land available for an average household, and the amount that is being utilized effectively towards the subsistence of that household. The problem at once emerges as to the possibility of bringing more land under effective use; and this problem is definitely raised in the following chapter (Movement of Population), where it has a special relevance to the growth of population; but the exact formulation of the problem and its solution are not matters within the province of a census authority or the limits of a census report.

¹ Compare with 82 per cent. the figure given by the Director of Surveys for the coastal plain, as defined by him, shown in the preceding footnote. The Maritime Plain, as tentatively defined by me, contains hill country and is larger than the coastal plain as defined by the Director of Surveys (see preceding footnote) which therefore has a higher proportion of land in utilization. The closeness of the agreement between the two results derived by different authorities and by different methods, one of which combines surveys with declarations, is not short of remarkable, and gives further evidence of the reliability of the subjective returns of agriculturists.—E.M.

² Those who wish to continue the research have only to recast the agricultural statistics into the form of tabulation for natural divisions given in paragraph 18.—E.M.

The actual amount of land of which no account has been rendered is 4,879 square kilometres representing 36 per cent. of the area of Palestine excluding the Beersheba sub-district. The proportions of such land in the several administrative divisions vary considerably. It may generally be assumed that the land of which no account is rendered is identical with the land that is not utilized for any productive purposes in agriculture, and it may be inferred that by far the greater part of such land is *Mewat* land, that is, land which is not subject to disposition and which has not been assigned for the public purposes of neighbouring localities¹. Whether or not and where this unutilized land can be utilized agriculturally, with a proper regard for economical production, must remain questions without answers until further experiment and research have taken place.

The statistics regarding irrigated land and rainfall are of interest and may be of value in consideration of the various urgent problems connected with the development of agriculture generally. One feature seems clear, namely, that, where irrigation is practised at the present day, the proportion of land not utilized is generally small. In this respect Jericho sub-district offers an exception caused in part, no doubt, by the saline nature of its soils.

TOWNS AND VILLAGES.

20. The definition of a town for census purposes was simply the area within the jurisdiction of a municipal council, together with one addition, namely, the town of Tel Aviv, which is within the jurisdiction of a subordinate local authority known as a local council endowed, however, with very wide municipal powers. From the aspect of the staff engaged on enumeration, this definition was convenient, but some difficulty arises in the discussion of the statistics for the reason that most of these towns cannot be described as urban in character. Indeed only four towns have any likeness to urban centres as these are understood in Europe. These towns are Jerusalem, Jaffa, Tel Aviv and Haifa. Of the remainder Nablus has a special claim to consideration on account of its parochial character in history, some of the social consequences of which are worth investigation. The remaining towns can only be described as convenient centres for the marketing of rural products, or as large villages. In this chapter, these distinctions will not be made and the discussion will follow the definition adopted for the purposes of enumeration. In other parts of this Report, however, in which various social characters are reviewed, urban population will be taken to comprise the populations of the four principal towns already named. This apparent arbitrariness is the result of obedience to the dictates of common sense. Apart from the four principal towns, the municipalities of Palestine are composed largely of persons dependent on agriculture for their livelihood. There is, thus, an *a priori* expectation that town communities, that are dominantly agricultural in outlook and in general activities, fall properly within a rural population in respect of most social characters. It is thus of little value to introduce an additional criterion into the definition of a town, a criterion limiting towns to those municipalities comprising an assigned minimum population of, say, five thousand or ten thousand persons. There are, for instance settlements round about Jerusalem of which the populations are small and which have many of the marks of urban life. While these settlements are not within the jurisdiction of the municipal council, they are suburbs; and the residents have more claim to be assigned to urban population than the inhabitants of a town like Majdal, in the Southern district, which is definitely a rural centre. These difficulties of classification arise from the administrative arrangements in the pre-war Ottoman Empire. Practically every group of persons dwelling in one area and numbering over five thousand was constituted a municipality. Arbitrariness in social and administrative arrangements is a consequence of the logical determinism of an administrative code

General.

¹ For further explanation as to the meaning of *Mewat* land see paragraph 31 below and footnote thereto.—E.M.

not related to the social circumstances to which it is applied. To differentiate between urban and rural populations it is necessary, therefore, to add the arbitrariness of selective judgment to the arbitrariness originating in legal determinism, if social phenomena are to be presented in a proper light¹.

☐ No specific definition was given for village, but instructions were issued that, wherever possible, the village was to be determined by its territorial limits: where that definition could not be applied then the residential unit was to be adopted as the village. The conception of a village seems clear enough, but it is, on examination, complicated when precision of statistics is required. There is, as a general rule, no difficulty in Palestine in recognizing in a general way the residential unit. The history of the country has led to the construction of villages in compact masses of structures. The village lands, in theory at any rate, lie around the villages, and the system of land registration, introduced in the years before the war, recognized the theoretical simplicity of these social arrangements by recording mutations in interests in land in annual registers associated with each sub-district. Without entering the difficult question of land tenures in Palestine, it is enough to say that, as a result of a vicious system of registration by names of persons holding interests in land, "islands" of land in one village became part of the lands of another village². The result is that the complete territorial description of a village would lead, in many instances, to complete confusion in a census record³. Hence it was essential to fall back on the residential unit as the village, if the prime definition were likely to lead to confusion. Another difficulty made this arrangement necessary. Jewish settlers have sometimes acquired land within the boundaries of an existing village, and have constructed their own village upon their property. The land which they acquired is, however, still part of the territorial lands of the original and existing village: the personal interests have changed, but the land itself remains within the confines of the transferor village regarded as a territorial unit. In such cases it was eminently desirable to treat the two residential units, if they were large enough, as two census units; or the smaller as a dependent unit with its own identity in the larger unit. To have insisted on the prime definition of village would have led to complete loss of individual identity of one of the two units which, in every social sense, were two distinct entities. Homesteads according to their size and number were regarded as either integral parts of the territorial village or were tabulated as "attached hamlets" thus preserving their identity although not tabulated as separate villages⁴. It will be appreciated, therefore, that the structure of the conception of "village" is, under analysis, far from simple and, for census purposes, much elaborate care is required if precision is to be given to the statistics of census⁵.

¹ There is now under consideration a comprehensive draft statute for the ordering of local government in Palestine. Under the bill it will be possible to classify local authorities having regard to the functions and social characters of the rural and urban populations.—E.M.

² The same sort of difficulty was experienced in the town of Gaza the population of which is predominantly a rural community. Some of the inhabitants cultivate lands in territorial villages many hours distant from the town and, at the time of the census, were dwelling on these lands in expectation of the first rains after which ploughing would begin. The District Officer took elaborate precautions to enumerate these persons as at Gaza in order to minimise a purely temporary disparity between the *de facto* and *de jure* populations of the town and the villages affected.—E.M.

³ Land settlement is now proceeding in Palestine and the system of registration resembles the Torrens system of the registration of shipping. In time, therefore, the present confusion will be ended and should never re-appear.—E.M.

⁴ It is only right to admit that certain errors were made in the plans of census divisions from the Southern and the Northern districts. In the Southern district the Jewish settlement of Sha'arayim consisting of 490 persons, of whom 266 are males and 224 females, was treated as an integral part of the Jewish village of Rehovot and thus lost its identity completely. It should certainly have been regarded as an attached hamlet. Miqve Yisrael was included in the suburban area of Jaffa town and should have been a separate census unit. Its population is 373 persons of whom 288 are males and 85 females. In the Northern district Nahliel and Gan Shmuel were treated as "attached hamlets" and might well have been regarded as separate villages: the population of Nahliel being 307 persons of whom 154 are males and 153 females, and that of Gan Shmuel 83 being 46 males and 37 females.—E.M.

⁵ It seems probable that the development of Palestine will augment confusion in the conception of "village" unless specific definition be adopted. The territorial unit will not necessarily coincide with any revenue unit to be established on the basis of *cadastra*; and the residential units comprising original villages and new Jewish settlements have no special precision and, in any event, will form additional elements in territorial or revenue units, or in both where the two overlap.—E.M.

21. The statistics of towns and villages will be found in Tables Nos. IV, V and VI in Volume II and the following Subsidiary Tables revealing the principal features will be found at the end of this chapter :— The statistics.

- Subsidiary Table No. III (c).* — Distribution of urban population according to density.
- ¹*Subsidiary Table No. IV.* — Distribution of the settled population between towns and villages.
- Subsidiary Table No. V.* — Towns classified by population.
- ²*Subsidiary Table No. VI.* — Number per mille of the total population and of each main religion who live in towns.
- Subsidiary Table No. VII.* — Certain statistics of towns.

22. Regarding Palestine as a whole, 41 per cent. of the population reside in towns and 59 per cent. in villages. In the Southern district 51 per cent. of the population reside in towns : in the Jerusalem district 49 per cent., and in the Northern district 29 per cent. Although the Northern district has a larger number of towns in the sense of municipalities than the other two districts, these towns apart from Haifa are small and exhibit practically no urban features. As was to be expected in a small sub-district with two towns, both of urban character, Jaffa sub-district gives an urban population of 72 per cent. of its settled population. In Jerusalem sub-district 69 per cent. reside in the towns, and in Haifa sub-district 57 per cent. If regard be had to the total population, including the nomads, these proportions are reduced in the Southern and Jerusalem districts, and the Jerusalem sub-district has the highest percentage of urban population (68 per cent.), the Jaffa sub-district taking second place with an urban population forming 67 per cent. of the total population of the sub-district. The statistics by religious confession for the total population show interesting variations. In Palestine as a whole 25 per cent. of the Moslems live in towns, so that at least three quarters of the Moslem population follow rural occupations ; 74 per cent. of the Jews live in towns and 76 per cent. of the Christians, so that only about one quarter of each of these communities can be assigned to the rural populations. A not negligible proportion of the Christian community consists of Europeans in His Majesty's Forces, in the public service, and in the consular services, a great proportion of whom reside in towns, thus inflating the urban population of Christians. In the districts 90 per cent. of the Christians in the Southern district live in towns and in the Jerusalem district 94 per cent. of the Jews are town dwellers. The Northern district shows considerably higher proportions of rural population for all communities, 59 per cent. of the Jews living in towns, 64 per cent. of the Christians and 21 per cent. of the Moslems. (a) Towns.

23. About 50 per cent. of the total population enumerated in all municipal areas are found in towns of the class in which fifty thousand to one hundred thousand persons are resident, that is, in Jerusalem, Haifa and Jaffa. By the time of the next census Jerusalem will have entered the first class ; that is, it will have a population of over one hundred thousand persons. About 19 per cent. of the urban population reside in towns with a population of ten thousand to twenty thousand persons. Density in towns.

The mean densities of the towns afford no reliable comparison as to the essential spacing of the urban population. The boundaries of municipal areas have been drafted on no common principles, so that in some towns the urban population is concentrated in an area roughly coincident with the municipal jurisdiction, while, in others, the population is centralized in a municipal jurisdiction including a belt of territory with a smaller mean density of population. Moreover, the essential differences between the characters of the populations of the

¹ These statistics relate only to the settled population. The very rural municipality of Khan Yunis is excluded, as also certain suburban settlements about Jerusalem.—E.M.

² These statistics relate to the total population.—E.M.

four principal towns and of the population of the remaining towns account to a great extent for the significant variations in densities to be found. Thus Ramallah, a centre of hill agriculture to the north of Jerusalem, a health resort for the local inhabitants and a residential suburb of Jerusalem for the wealthier professional families, gives a density of less than 3 persons per metric dunam; while Beersheba with a population three quarters that of Ramallah, consisting largely of small shopkeepers and moneylenders, to whom most of the nomads of Beersheba are indebted, has a municipal boundary giving a density of 3 to 4 persons per metric dunam. Clearly no measure of the importance of the two towns, of the characters of their populations and their utilities, is given by these comparative figures. At the other end of the scale is the town of Majdal—agriculture and weaving are its principal activities—with a density of 16 to 17 persons per metric dunam. This density, in Palestine, would seem to suggest the concentration of an urban population, but the population has none of the features associated with the industrial life of towns.

What has happened, in fact, is that certain municipal councils with forethought for the development of their towns, for the government of which they are responsible, have sought to arrange municipal boundaries in such manner that the extension and growth of the town shall be controlled by public authority. Haifa and Jaffa for instance, have a mean population density of 3 to 4 persons per metric dunam, while Jerusalem, notwithstanding the removal of a not inconsiderable proportion of people from the Old City, where the degree of concentration was high, to that part of the city that lies outside the old enclosed town, has a mean population density about double that of the two seaport towns. Prospects of economic and commercial development rightly govern the densities of the two sea ports which are, therefore, not strictly comparable with other towns in so far as the character of the prospects for the future and the mode of economic growth differ from town to town.

Distribution by religion.

24. The following table shows the distribution by religious confession of the populations of the four principal towns:—

NUMBER PER 1,000 OF POPULATION IN EACH RELIGIOUS CONFESSION.

Town (Municipal areas only)	All religions	Moslems	Jews	Christian	Others
Jerusalem	1,000	220	566	214	...
Jaffa	1,000	685	139	176	...
Haifa	1,000	403	316	274	7
Tel Aviv	1,000	2	995	3	...

Details by religious confession in respect of other towns can easily be determined from the absolute statistics given either in Volume II of this Report or in the volume of the preliminary results.

Age distribution by sex.

25. The age distributions in the four towns and in Nablus in relation to the general age distribution for the whole country are significant. Taking the age distribution in Palestine by quinquennial groups and forming the percentage ratios of the proportionate town populations in each group to the proportionate Palestine populations in the same groups¹, the relations may generally be taken to indicate an immigration into the four towns of males between the ages of 15 and 40 years², and an emigration from Nablus. There is, however, a remarkable deficiency of females below the general age distribution of the female population of the country in the middle years of life. This feature is particularly notice-

¹ See Chapter V (Age) for full discussion.—E.M.

² Tel Aviv, however, exhibits an excess of males from 15-75 years and does not necessarily reflect migration from the rural areas.—E.M.

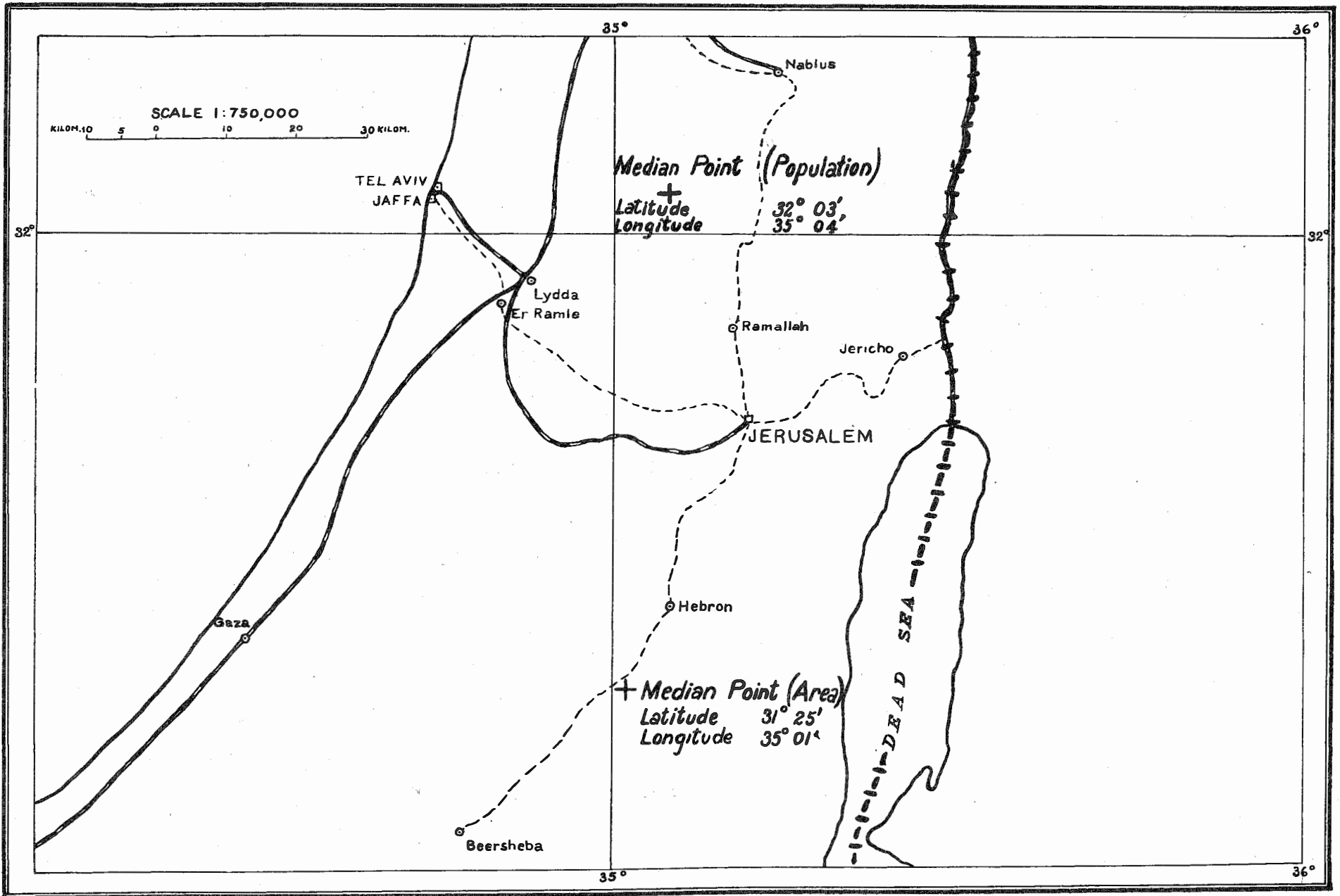


DIAGRAM No. 3

DIAGRAM 2.

COMPARISON BETWEEN THE POPULATION OF DISTRICTS
AND SUB-DISTRICTS AND THE AVERAGE POPULATION
OF SUB-DISTRICTS.

□ URBAN POPULATION
■ RURAL POPULATION

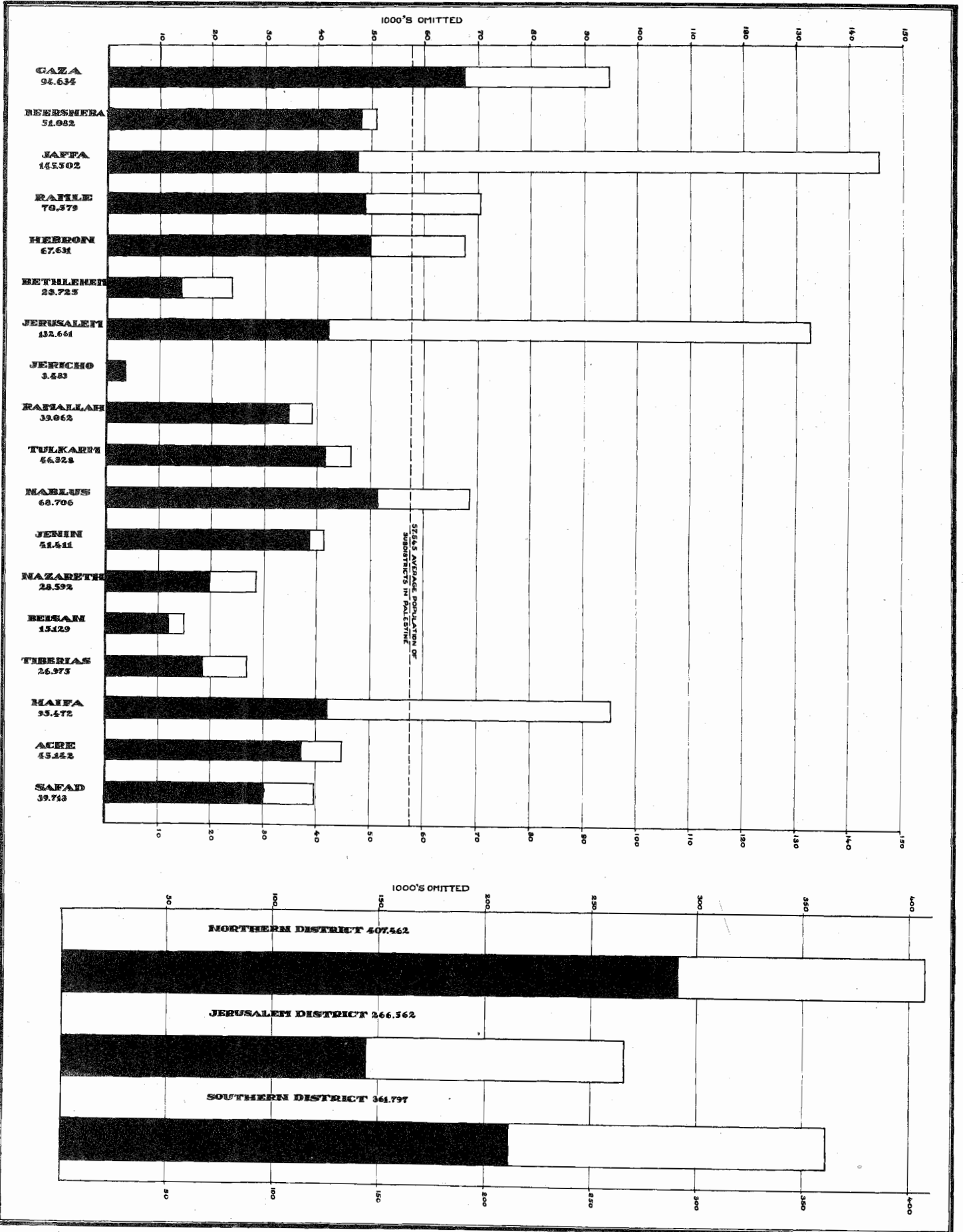


DIAGRAM No. 2

able in Jerusalem between the ages of 25 and 45 years and at Haifa from 35 years and upward. The following table shows the respective distributions:—

RATIO OF PROPORTIONATE POPULATION OF CERTAIN TOWNS TO THAT OF PALESTINE IN EACH AGE GROUP.

Palestine males = 100
Palestine females = 100

Town	Sex	Age Group															
		0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-
Jerusalem	Male	82	95	104	131	125	102	105	88	100	87	94	109	101	109	109	86
	Female	80	97	113	144	110	95	94	91	97	97	101	125	107	134	111	87
Jaffa	Male	90	101	97	117	114	94	103	102	123	93	110	84	94	64	94	73
	Female	99	109	102	121	117	93	104	85	101	82	98	69	91	55	86	82
Haifa	Male	80	81	80	119	139	136	135	110	106	90	90	82	71	74	57	48
	Female	84	97	101	128	129	119	109	96	91	91	89	94	72	77	62	72
Tel Aviv	Male	66	100	85	109	107	127	153	113	119	195	115	147	117	135	120	56
	Female	62	75	91	135	130	137	122	102	94	104	95	158	95	141	82	52
Nablus	Male	100	115	126	106	96	77	86	82	106	104	99	112	108	73	97	58
	Female	98	113	108	119	92	87	103	87	100	99	111	81	86	82	90	83

The irregularities in the proportions returned at each age are due to errors which are discussed in detail in Chapter V (Age); and it need only be said here that these oscillations disappear when larger age groups are taken as the basis for the calculated proportions. Nevertheless the general implications of immigration of males into the four principal towns and of emigration of males from Nablus in the years of economic capacity are instantly obvious. The female age distributions on the whole show smaller deviations from the general distribution of the Palestine population but there are significant deficiencies in Jerusalem between the ages of 25 and 50 years: in Jaffa, from 60 years and upward; and in Haifa from 35 years and upward. The phenomenon at Haifa can be explained on the grounds that there is relatively considerable population of immigrant Jews in the town: these lie generally in the ages of 15–35 years, so that the women in the later ages of life are proportionately not yet in normal distribution in relation to the total population of the town. Moreover, the immigrants from the rural areas who are not Jews but who are accompanied by their wives add an excess of females in the earlier years of married life, and so considerably disturb the proportions in the latter ages of life. Similarly immigrants from the rural areas into Jaffa who are accompanied by their wives cause the female age distribution of that town to be super-normal in the age period 15–40 years and sub-normal in the later years, but the phenomenon is not well-marked and the male immigration into Jaffa appears to be largely celibate in character. In Jerusalem, the significant deficiency in the female age distribution lies between 25 years and 50 years, and, apart from the deficiency between birth and 10 years, the distribution is super-normal in the other ages. There may be, therefore, a significant mortality among women in Jerusalem between the ages of 25 years and 50 years, which is perhaps also visible in the female age distribution for Jaffa. Whatever the facts concerning the female age distribution, there is no doubt that there is a significant immigration of males in the ages of economic capacity to the four principal towns and an emigration of the same category of population from the town of Nablus. If, as may be legitimately supposed, the immigration into the four towns is a reflexion of the economic development of these towns and of the consequential opportunity of absorption into new forms of economic life, the emigration from Nablus implies a comparative degeneration in the economic life of that town.

There may have been some progress there, but the general development appears to be at a low rate compared with that in the four towns. The chances of absorption into economic life may be therefore smaller, and the young men are attracted towards localities where new activities give earnest of a way of life more prosperous, or more rapidly prosperous, than that before them in Nablus.

Sex proportions in towns.

26. The sex proportions in the four towns are :—

	<i>Number of females per 1,000 males.</i>						
Jerusalem	977
Jaffa	871
Haifa	864
Tel Aviv	1,055

The sex proportion is usually a reliable index of commercial and industrial towns. The beginnings of industrial and commercial development in towns are usually marked by immigration preponderantly masculine in character, so that the ratio of females to males in the population of the town is small. This feature is conspicuously evident in the proportions at Haifa and Jaffa ; and it is clear that, in the opinion of the persons composing the whole population, both towns, and especially Haifa, have a future of development before them. It is not without interest that what may be termed "café-life" is a very obvious characteristic of both towns, partly, no doubt, because both towns are sea ports, but mainly because the populations are preponderantly male in character. This masculinity of population is also mainly responsible for the female prostitution in these towns, which, in this respect, are in marked contrast to the rural towns of Palestine. On the other hand, the number of prostitutes in both towns is small in comparison with the numbers in other Mediterranean sea ports.

Conjugal condition in towns.

27. The conjugal distribution¹ in towns in comparison with that of the population as a whole is given in the following table :—

DISTRIBUTION BY CONJUGAL CONDITION OF 1.000 OF EACH SEX AGED 15 AND UPWARD.

Town	Sex	Unmarried	Married	Divorced	Widowed
Palestine	Male	340	628	4	28
	Female	162	652	8	178
Jerusalem	Male	411	554	6	29
	Female	255	551	8	186
Jaffa	Male	390	571	8	31
	Female	157	657	8	178
Haifa	Male	425	550	5	20
	Female	220	628	7	145
Tel Aviv	Male	335	629	5	31
	Female	274	559	11	156

The distributions in the four towns are not remarkable : they imply, as might be expected, that there is a greater proportion of unmarried of both sexes in the earlier ages of life than in the population as a whole. This is a normal phenomenon of town life and arises from a variety of economic and social causes. As a rule, young men in towns, accustomed to a certain standard of economic life, cannot maintain that standard on marriage ; and a further difficulty arises from the circumstances that very often they are obliged to contribute towards the maintenance of their parents and other aged relatives. In rural life a wife provides free labour in the fields, and there is therefore no great economic restriction against the marriage of young men in villages, provided that the usual marriage

¹ For a general discussion on conjugal condition see Chapter VII (Conjugal conditions).—E.M.

settlements can be arranged. In towns, moreover, both men and women have greatly wider circles of acquaintanceship¹ leading generally to postponement of marriage.

28. Of the urban population 24.3 per cent. are foreign born.

The proportions in the four principal towns are as follow :—

The foreign population of towns.

Jerusalem	..	..	..	..	..	35 per cent.
Jaffa	..	..	..	..	..	14 „ „
Haifa	..	..	..	..	..	31 „ „
Tel Aviv	..	..	..	..	..	71 „ „

In general, as was to be expected, the towns in which the Jewish and Christian populations are not negligible in comparison with the total population are those which yield the highest proportions of foreign-born persons.

29. In general, towns in Palestine are only in the very early stages of development : towns depend upon an economic background and the background for the four main towns does not yet emerge in sharp outline. Jaffa and Tel Aviv both have a sense of security in the development of agriculture, particularly that part of it concerned with the cultivation of oranges and grape-fruit, but Tel Aviv does not bear in its age, sex, and conjugal constitutions the marks of a progressive commercial or industrial development like that of Haifa or Jaffa. The development of Haifa and its port works may have a considerable effect on both Jaffa and Tel Aviv ; and the age and sex constitutions of its population imply a strong sense of confidence in the future, a confidence not based on present prosperity so much as on anticipated development. Jerusalem has no very well defined features assisting to wards an estimate of its future. In the material sense, it will probably remain a residential centre for the professional classes and, through them, will provide a general but limited market for the natural produce of the country. That the town was ever established where it stands is something of a mystery, since it lacks natural resources and has few, if any strategical values. Yet its influences in the world have been incalculably greater than those of any other historical city ; and, even if at times the response to these influences was material, the influences themselves were of the spiritual order. Its origin and its history are alike supranatural ; and, doubtless, this quality of mystery has given it a dominance in the world of an order totally different from that of the great cities upon which the world now depends for its material existence.

General.

30. Enough has already been said as to the general character of villages in Palestine and the difficulty of assigning a precise signification to the term, notwithstanding the fact that the social unit is generally capable of instant recognition.

(b) Villages.

General.

31. Of the settled² population 59 per cent. reside in villages, and the mean population of a village is 609 persons. The villages have been placed in six classes according to the magnitude of the village population, and it will be seen from Subsidiary Table No. IV that 22 per cent. of the rural population live in villages with a population of less than five hundred persons, 28 per cent. in villages with a population of five hundred to one thousand persons, 28 per cent. again in villages with a population of one thousand to two thousand persons, 11 per cent. in villages with a population of two thousand to five thousand persons, and 20 per cent. in villages with a population of over five thousand persons. These proportions do not change greatly in the district distributions, but the Jerusalem district has a smaller proportion (18 per cent.) living in the smallest villages and a higher proportion (32 per cent.) living in villages with a population of one thousand to two thousand persons. The sub-districts show greater variations and an

Statistics.

¹ I make exception, of course, in respect of Moslem families who maintain the old traditions of strict seclusion of the females of the household, although this tradition is beginning to break down.—E.M.

² Nomads are not included.—E.M.

examination of the statistics reveals that the largest villages are more popular in the Gaza and Hebron sub-districts than elsewhere. This is not surprising, since the close country of the Central Range and Galilee very definitely conditions the growth of hill villages. The Hebron sub-district, while it is part of the Central Range, is open in character and drops fairly gently to the Maritime Plain thus permitting the growth of villages of moderate size. Moreover, the openness of the southern parts of Palestine has facilitated invasion of the country by hostile neighbours, so that inhabitants were no doubt compelled by the strategical necessities of natural protection to form larger social groups than in those parts of the country less liable to invasion. It is of considerable interest to note the large number of localities which are comprised within some of the villages of the south. Historically these may represent ancient homesteads which served as outposts for the parent village giving warning when danger threatened from the south or east. In other cases, no doubt, they represent attempts to develop new land, but it is of interest that few of them have crystallized into villages, their owners maintaining their existences in the parent villages in preference to attracting migrations to them from those villages.

The mean distance between villages in Palestine is about 4-5 kilometres¹, but the actual distances vary considerably. If this were not so there could be no *Mewat* land in Palestine. *Mewat* land is waste land which is not held by title deed and which has not been assigned for public purposes of a village. In tradition, it is land lying outside the territorial confines of a village and these confines were determined as being the limits beyond which a man shouting from the residential site cannot be heard². These limits in virtue of judicial decision are now taken to be about 2.5 kilometres. It follows that unless there were great variations in the distances between villages, territorial limits of villages would form a complete or overlapping mosaic and there would be no *Mewat* land³.

OCCUPIED HOUSES—HOUSEHOLDS.

Persons per house and houses per square kilometre.

32. The settled population of Palestine was returned as dwelling within 215,825 houses, yielding an average household of 4.5 persons. The definition of house for census purposes was not included in the legislation for the reason that it was desirable to gather experience of the local usage of the word in the vernaculars. The definition adopted in administrative instructions was:—

House should normally be the dwelling place of a commensal family with its resident dependants such as widows and servants. In exceptional cases it may be the enclosure or residence of one or more families having a separate entrance from the common way.

The definition satisfied two needs in a country where household differs from town to village and from one community to another. The question has two aspects, the structural and the social. The structural aspect is statistically useless, but, in some villages, gives the only guide for control of enumeration. The social aspect not only facilitates control of the enumeration but is also statistically valuable in giving conceptions of the familial unit. The definition was, on the whole, satisfactory, but its application in certain areas showed a lack of

¹ See footnote to paragraph 16 for the formula for proximity of villages. Beersheba sub-district must, of course, be excluded as having no villages. The number of villages is small and the assumptions behind the formula involve consideration of large statistical aggregates, so that the mean distance between villages as determined is not very reliable. The mean distance between villages on the plains is rather smaller than that given, but, on the hills, is greater, sometimes considerably so. The Beersheba sub-district must be largely *Mewat* in character.—E.M.

² This primitive method of determining village limits is by no means peculiar to Palestine.—E.M.

³ It is not yet known how much *Mewat* land there is, but the amount of land in respect of which no account is given in the table of agricultural statistics, paragraph 19, approaches 5,000 square kilometres, and there must be virtual identity between *Mewat* land and land of which no account is given in the subjective declarations of the peasants.—E.M.

understanding and, in some cases, of ordinary sense. In Tel Aviv and in some villages in Nablus sub-district a single man having a bedroom in an ordinary house, that is, a lodger, was sometimes returned as forming a separate household. In other cases, in Jewish villages of the communal type, where large hutments accommodate a number of persons constituting, according to traditional European notions, separate households, a few houses were returned as the residences of two score or more persons, no distinction being made as to the separate family arrangements, probably because the people themselves refused to make the distinctions. An examination of the statistics, however, reveals that the errors on one side tend to equilibrate the errors on the other side for areas that are larger than village units, so that the averages for sub-districts and towns may be taken as substantially accurate¹. The number of persons per occupied dwelling (separate) in England and Wales in 1921 was 4.85. A separate dwelling in England is not necessarily a separately constructed discrete building, but is often a house in which structural alterations permit of complete familial privacy. The question of definition in these matters is of the greatest importance, but, generally, there is a rough correspondence between the "occupied dwelling" of England and the "house" of Palestine as defined for the census taken in 1931. The comparison breaks down, however, when the number of rooms is taken into account. The average number of rooms per occupied dwelling in England and Wales, 1921 was 5.14, whereas in Palestine it is considerably smaller. No statistics were taken at the census in regard to this matter, but the number of rooms available for a family, that is, an ordinary domestic household, does not, in all probability, exceed two. This question is extremely important in the towns in relation to public services and should be examined carefully by the method of representative samples².

In the towns all types of house, from the dignified stone constructions built scores of years ago to the dignified and undignified detached residences and tenements built of stone or reinforced concrete and copied from European countries and purporting to satisfy European requirements, are found. Houses in the villages are constructed of the material found most easily. In the hill country, stone is employed; in the villages of the southern part of the Maritime Plain, mud bricks are commonly the material of construction³.

Types of
houses.

The average distance between houses in Palestine in 269 metres⁴.

¹ After the publication of the preliminary results of the census in "Population of Villages, Towns and Administrative Areas, 1931" my attention was drawn to the confusion in the minds of the public and some departments as to the precise meaning of "occupied house". The definition was stated in the preface with an unfortunate misprint; but the error was not such as to disguise the essence of the definition. A house may be considered as a structural unit or as the physical accommodation of one or more social units. In the statistical sense, the social unit, *i.e.* the commensal family, alone has importance. Water and drainage for example are not supplied to a masonry construction but to a number of users grouped into familial units requiring approximately assessable quantities of water and capacities for drainage. Estimates based on households have reality, but estimates based solely on masonry units may be fictitious.—E.M.

² In urban areas the assessments for urban property tax should furnish the material without difficulty. It would also be instructive to determine the correlation between the number of rooms and the number of children below a certain age.—E.M.

³ A very instructive paper on the Arab House in Palestine is contributed by Dr. T. Canaan in the Journal of the Palestine Oriental Society. Vol. XII. No. 4.—E.M.

⁴ See footnote to paragraph 16 in which the formula for proximity is given. Beersheba sub-district is, of course, excluded as having no houses.—E.M.

SUBSIDIARY TABLE No. 1.

Distribution of total population and area by administrative divisions.

DISTRICT	AREA		POPULATION	
	Absolute	Percentage	Absolute	Percentage
1	2	3	4	5
PALESTINE	25,483	100	1,035,821	100
SOUTHERN DISTRICT	14,217	55.8	361,797	34.9
Gaza Sub-district	1,196	4.7	94,634	9.1
Beersheba Sub-district	11,872	46.6	51,082	4.9
Jaffa Sub-district	335	1.3	145,502	14.1
Ramle Sub-district	814	3.2	70,579	6.8
JERUSALEM DISTRICT	4,278	16.8	266,562	25.7
Hebron Sub-district	2,120	8.3	67,631	6.5
Bethlehem Sub-district	520	2.1	23,725	2.3
Jerusalem Sub-district	420	1.6	132,661	12.8
Jericho Sub-district	676	2.7	3,483	0.3
Ramallah Sub-district	542	2.1	39,062	3.8
NORTHERN DISTRICT	6,988	27.4	407,462	39.4
Tulkarm Sub-district	751	2.9	46,328	4.5
Nablus Sub-district	1,618	6.3	68,706	6.6
Jenin Sub-district	800	3.1	41,411	4.0
Nazareth Sub-district	507	2.0	28,592	2.8
Beisan Sub-district	395	1.6	15,123	1.5
Tiberias Sub-district	453	1.8	26,975	2.6
Haifa Sub-district	1,022	4.0	95,472	9.2
Acre Sub-district	730	2.9	45,142	4.4
Safad Sub-district	712	2.8	39,713	3.8

SUBSIDIARY TABLE No. II.

Density of population and proximity of persons.

DISTRICT	Density of population per 100 sq. kilometres	Proximity in metres of persons distributed uniformly
1	2	3
PALESTINE	4,065	169
PALESTINE less Beersheba Sub-district	7,258	126
SOUTHERN DISTRICT	2,545	213
SOUTHERN DISTRICT less Beersheba Sub-district	13,382	93
Gaza Sub-district	7,913	121
Beersheba Sub-district	430	518
Jaffa Sub-district	43,433	52
Ramle Sub-district	8,671	115
JERUSALEM DISTRICT	6,301	135
Hebron Sub-district	3,190	190
Bethlehem Sub-district	4,563	159
Jerusalem Sub-district	31,586	60
Jericho Sub-district	515	474
Ramallah Sub-district	7,207	127
NORTHERN DISTRICT	5,831	141
Tulkarm Sub-district	6,169	137
Nablus Sub-district	4,246	165
Jenin Sub-district	5,176	149
Nazareth Sub-district	5,639	143
Beisan Sub-district	3,829	174
Tiberias Sub-district	5,955	139
Haifa Sub-district	9,342	111
Acre Sub-district	6,184	137
Safad Sub-district... ..	5,578	144

SUBSIDIARY
Distribution of total population

DISTRICT AND SUB-DISTRICT		SUB-DISTRICTS WITH A							
		4 and 5		30 - 40		40 - 50		50 - 60	
		Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation
1	2	3	4	5	6	7	8	9	
PALESTINE	12,548	54,565	2,515	82,754	2,138	92,431	2,472	136,691	
Per cent.	49.2	5.3	9.9	8.0	8.4	8.9	9.7	13.2	
SOUTHERN DISTRICT	11,872	51,082	...	...	...	...	...	...
Per cent.	83.5	14.1	...	...	...	...	...	...
Gaza Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Beersheba Sub-district	11,872	51,082	...	...	...	...	...	...
Per cent.	100	100	...	...	...	...	...	...
Jaffa Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Ramle Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
JERUSALEM DISTRICT	676	3,483	2,120	67,631	520	23,725	...	...
Per cent.	15.8	1.3	49.6	25.4	12.1	8.9	...	...
Hebron Sub-district ... ..	...	...	2,120	67,631	...	...	...	...
Per cent.	...	...	100	100	...	...	...	...
Bethlehem Sub-district ... ..	...	...	...	...	520	23,725	...	...
Per cent.	...	...	...	...	100	100	...	...
Jerusalem Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Jericho Sub-district	676	3,483	...	...	...	...	...	...
Per cent.	100	100	...	...	...	...	...	...
Ramallah Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
NORTHERN DISTRICT ... ..	...	...	395	15,123	1,618	68,706	2,472	136,691
Per cent.	...	...	5.6	3.7	23.2	16.9	35.4	33.5
Tulkarm Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Nablus Sub-district ... ..	...	...	...	...	1,618	68,706	...	...
Per cent.	...	...	...	...	100	100	...	...
Jenin Sub-district ... ..	...	...	...	...	...	...	800	41,411
Per cent.	...	...	...	...	...	...	100	100
Nazareth Sub-district ... ..	...	...	...	...	...	...	507	28,592
Per cent.	...	...	...	...	...	...	100	100
Beisan Sub-district ... ..	...	...	395	15,123	...	...	...	...
Per cent.	...	...	100	100	...	...	...	...
Tiberias Sub-district ... ..	...	...	...	...	...	...	453	26,975
Per cent.	...	...	...	...	...	...	100	100
Haifa Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Acre Sub-district ... ..	...	...	...	...	...	...	...	...
Per cent.	...	...	...	...	...	...	...	...
Safad Sub-district ... ..	...	...	...	...	...	...	712	39,713
Per cent.	...	...	...	...	...	...	100	100

SUBSIDIARY TABLE No. III (c).

Distribution of urban population according to density.

DISTRICT AND TOWN	TOWNS WITH A POPULATION PER METRIC DUNAM OF															
	Under 3		3 - 4		5 - 6		6 - 7		7 - 8		8 - 9		14 - 15		16 - 17	
	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation	Area	Popu- lation
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PALESTINE	1,652	4,287	38,864	121,517	2,630	14,712	2,163	14,432	18,566	136,604	7,758	65,689	1,176	17,189	369	6,226
SOUTHERN DISTRICT	18,022	54,825	...	...	...	...	5,836	46,101	4,576	38,717	...	...	369	6,226
Gaza Town	2,070	17,046	...	...	...	...
Majdal Town	369	6,226
Beersheba Town	882	2,959	...	...	...	...	...	...	...	...	...	...	...	...
Jaffa Town	17,140	51,866	...	...	...	...	...	...	...	...	...	...	...	...
Tel Aviv Town	5,836	46,101	...	...	...	...	...	...
Ramle Town	1,185	10,421	...	...	...	...
Lydda Town	1,321	11,250	...	...	...	...
JERUSALEM DISTRICT	1,652	4,287	...	...	1,156	6,815	407	2,730	12,730	90,503	2,040	17,531	...	...	...	...
Hebron Town	2,040	17,531	...	...	...	...
Bethlehem Town	1,156	6,815	...	...	...	...	...	...	...	...	...	...
Beit Jala Town	407	2,730	...	...	...	...	...	...	...	...
Jerusalem Town	12,730	90,503	...	...	...	...	...	...
Ramallah Town	1,652	4,287	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NORTHERN DISTRICT	20,842	66,692	1,474	7,897	1,756	11,702	...	...	1,142	9,441	1,176	17,189	...	...
Tulkarm Town	1,516	4,827	...	...	...	...	...	...	...	...	...	...	...	...
Nablus Town	1,176	17,189	...	...
Jenin Town	790	2,706	...	...	...	...	...	...	...	...	...	...	...	...
Nazareth Town	2,508	8,756	...	...	...	...	...	...	...	...	...	...	...	...
Beisan Town	467	3,101	...	...	...	...	...	...	...	...
Tiberias Town	1,289	8,601	...	...	...	...	...	...	...	...
Haifa Town	16,028	50,403	...	...	...	...	...	...	...	...	...	...	...	...
Acre Town	1,474	7,897	...	...	...	...	...	...	...	...	...	...
Safad Town	1,142	9,441	...	...	...	...

SUBSIDIARY TABLE No. IV.

Distribution of the settled population between towns and villages.

DISTRICT AND SUB-DISTRICT	Average population per		Number per mille residing in		Number per mille of rural population residing in villages with a population of						Number per mille of urban population residing in towns with a population of			
	Town	Village	Towns	Villages	Under 500	500 to 1,000	1,000 to 2,000	2,000 to 3,000	3,000 to 6,000	6,000 and over	Under 5,000	5,000 to 10,000	10,000 to 20,000	20,000 and over
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PALESTINE	17,470	609	408	592	222	282	279	110	81	26	65	124	191	620
SOUTHERN DISTRICT	20,960	788	510	490	137	255	293	100	166	49	20	43	265	672
Gaza Sub-district	9,028	1,014	315	685	97	273	327	76	227	...	...	...	...	...
Beersheba Sub-district ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jaffa Sub-district	48,983	967	722	278	114	184	148	187	184	183	...	...	...	...
Ramle Sub-district	10,836	544	327	673	211	291	370	56	72	...	...	...	...	...
JERUSALEM DISTRICT	24,373	795	486	514	177	251	321	163	31	57	71	55	142	732
Hebron Sub-district	17,531	1,348	271	729	55	140	332	234	85	154	...	...	...	...
Bethlehem Sub-district	4,773	553	611	389	169	341	490	...	...	...	...	...	...	...
Jerusalem Sub-district	90,503	607	690	310	271	207	333	189	...	...	...	...	...	...
Jericho Sub-district ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ramallah Sub-district	4,286	589	110	890	236	435	263	66	...	...	...	...	...	...
NORTHERN DISTRICT	11,575	503	287	713	284	309	254	92	61	...	116	300	149	435
Tulkarm Sub-district	4,827	786	105	895	156	195	264	291	94	...	...	...	...	...
Nablus Sub-district	17,189	526	250	748	307	366	246	...	81	...	...	...	...	...
Jenin Sub-district	2,706	577	65	935	189	293	265	253	...	...	...	...	...	...
Nazareth Sub-district	8,756	469	308	692	251	405	184	...	160	...	...	...	...	...
Beisan Sub-district	3,101	240	215	785	896	104	...	...	...	...	...	...	...	...
Tiberias Sub-district	8,601	373	325	675	421	272	307	...	...	...	...	...	...	...
Haifa Sub-district	26,614	612	568	432	233	250	301	54	162	...	...	...	...	...
Acre Sub-district	7,897	626	176	824	205	343	384	68	...	...	...	...	...	...
Safad Sub-district	9,441	335	239	761	413	463	124	...	...	...	...	...	...	...

Note.—In compiling this table the following elements have been excluded :

- (1) The suburban areas of all the towns.
- (2) The quarters of Beit-Hakerem, Bayit V'gan and Qiryat Montifiori.
- (3) Khan Yunis town of Gaza sub-district.

The figures of Beersheba and Jericho sub-districts have not been calculated as they are too small for that purpose.

SUBSIDIARY TABLE No. V.

Towns classified by population.

CLASS OF TOWN	Proportion per cent. to total urban population	Number of females to 1,000 males	Increase per cent. in towns as classed at census 1922
			1922 — 1931
1	2	3	4
	100.00	966	46.52
I.—100,000 & over	—	—	—
II.— 50,000-100,000	49.78	917	208.05
III.— 20,000-50,000	11.90	1,055	— 36.27
IV.— 10,000-20,000	18.96	991	46.86
V.— 5,000-10,000	12.33	1,019	— 15.85
VI.— Under 5,000	7.03	1,017	20.19

SUBSIDIARY TABLE No. VI.

Number per mille of the total population and of each main religion who live in towns.

DISTRICT AND SUB-DISTRICT	NUMBER PER MILLE WHO LIVE IN TOWNS				
	Total population	Moslems	Jews	Christians	Others
1	2	3	4	5	6
PALESTINE	374	248	736	758	148
SOUTHERN DISTRICT	414	310	671	899	(976)
Gaza Sub-district	286	282	(10)	(881)	...
Beersheba Sub-district	58	55	(65)	(994)	(1,000)
Jaffa Sub-district	673	544	756	935	(978)
Ramle Sub-district	307	315	(4)	815	(1,000)
JERUSALEM DISTRICT	457	226	935	814	(710)
Hebron Sub-district	259	256	(1,000)	(903)	(1,000)
Bethlehem Sub-district	402	109	(72)	764	(1,000)
Jerusalem Sub-district	682	344	939	952	(1,000)
Jericho Sub-district ... ..	...	...	...	...	...
Ramallah Sub-district	110	(16)	(1,000)	526	...
NORTHERN DISTRICT	284	207	593	643	114
Tulkarm Sub-district	104	100	(27)	(717)	(875)
Nablus Sub-district	250	245	(600)	(439)	(995)
Jenin Sub-district	65	64	(500)	(121)	(1,000)
Nazareth Sub-district	306	179	(25)	737	(353)
Beisan Sub-district	205	213	(45)	(623)	(710)
Tiberias Sub-district	318	160	619	(327)	(11)
Haifa Sub-district	576	404	681	918	(298)
Acre Sub-district	175	190	(801)	199	(12)
Safad Sub-district	238	190	693	471	(6)

() brackets signify that the proportions are calculated on actual populations when these actual populations number less than 1,000.

SUBSIDIARY TABLE No. VII.

Certain statistics of towns.

TOWN	Population in 1931	Number of persons per metric dunam	Number of females to 1,000 males	Proportion of foreign born per mille	Percentage of variation 1922 — 1931 Decrease (-)
1	2	3	4	5	6
PALESTINE	387,291	5.2	966	243	46.5
SOUTHERN DISTRICT	149,680	5.1	956	276	62.8
Gaza Town	17,046	8.2	1,025	13	— 2.5
*Khan Yunis Town... ..	3,811	...	1,043	35	— 2.0
Majdal Town	6,226	16.8	1,016	1	22.2
Beersheba Town	2,959	3.4	887	11	25.6
Jaffa Town	51,866	3.0	871	141	59.5
Tel Aviv Town	46,101	7.9	1,055	709	203.6
Lydda Town	11,250	8.5	948	13	38.8
Ramle Town	10,421	8.7	849	53	42.5
JERUSALEM DISTRICT	121,866	6.8	1,009	271	32.4
Hebron Town	17,531	8.6	1,048	8	5.8
Beit Jala Town	2,730	6.7	1,268	42	— 12.0
Bethlehem Town	6,815	5.9	1,136	138	2.4
Jerusalem Town	90,503	7.1	977	350	44.6
Ramallah Town	4,287	2.6	1,208	36	38.1
NORTHERN DISTRICT	115,745	4.3	935	172	44.0
Tulkarm Town	4,827	3.2	948	22	44.1
Nablus Town	17,189	14.6	1,025	24	7.8
Jenin Town	2,706	3.4	988	20	2.6
Nazareth Town	8,756	3.5	981	89	17.9
Beisan Town	3,101	6.6	854	86	59.8
Tiberias Town	8,601	6.7	1,066	188	23.8
Haifa Town	50,403	3.1	864	306	104.6
*Shafa 'Amr Town... ..	2,824	...	994	15	23.4
Acre Town... ..	7,897	5.4	886	82	23.0
Safad Town	9,441	8.3	1,058	66	7.1

*In calculating the density per metric dunam for the districts and Palestine the number of persons of the towns Khan Yunis and Shafa 'Amr have been excluded, as the areas of the above-mentioned towns are not known

SUBSIDIARY TABLE No. VIII.

*Persons per house and houses per square kilometre.**(For the settled population only).*

DISTRICT AND SUB-DISTRICT	Average number of persons per house	Average number of houses per square kilometre
1	2	2
PALESTINE	4.49	8.47
SOUTHERN DISTRICT	4.37	4.90
Gaza Sub-district	4.68	16.82
Beersheba Sub-district	5.27	0.05
Jaffa Sub-district	4.16	100.84
Ramle Sub-district	4.39	18.70
JERUSALEM DISTRICT	4.47	13.45
Hebron Sub-district	4.90	6.32
Bethlehem Sub-district	4.50	7.17
Jerusalem Sub-district	4.32	72.11
Jericho Sub-district	4.97	1.00
Ramallah Sub-district	4.33	16.66
NORTHERN DISTRICT	4.60	12.68
Tulkarm Sub-district	4.73	13.03
Nablus Sub-district	4.75	8.92
Jenin Sub-district	4.74	10.92
Nazareth Sub-district	4.67	12.07
Beisan Sub-district	4.13	9.27
Tiberias Sub-district	4.43	13.45
Haifa Sub-district	4.74	20.88
Acre Sub-district	4.52	13.67
Safad Sub-district	4.71	11.84

CHAPTER II.—MOVEMENT OF POPULATION.

Introductory. 33. The statistics will be found in Tables II, III and V, Volume II, of this Report, and in the following Subsidiary Tables at the end of this chapter:—

- Subsidiary Table I.* — Variation in relation to density since 1922 (Total population).
Subsidiary Table II. — Variation in natural population, 1922–1931.
Subsidiary Table III. — Variation by sub-districts classified according to density.
 (a) Actual variation, 1922–1931.
 (b) Proportional variation.
Subsidiary Table IV. — Certain statistics of towns.
Subsidiary Table V. — (a) Urban and rural population by district and sub-district, 1922–1931.
 (b) Towns classified by population.

In the terminology of European demographers, movement of population comprises changes by natural increase and changes by migration. The changes in the population of Palestine in this complete sense are measured by a comparison between the enumerations of 1922 and 1931. With this definition, the variations in the enumerated populations of Palestine for the period 1922–1931 are:—

						<i>Increase per cent.</i>
All religions	..	..	..	..	..	36.8
Moslems	..	..	..	..	..	28.6
Jews	..	..	..	..	..	108.4
Christians	..	..	..	..	..	25.2

These increases are remarkable¹. There is no reason to doubt the general accuracy of the total figures for either 1922 or 1931: there is good reason to suppose that the aggregate in 1922 was wrongly composed, in that too great a population was assigned to Beersheba sub-district and the females in the settled population were short-counted². Nevertheless there is a general consistence between the aggregate results of 1922 and 1931 throughout the statistics of movement, which

¹ So far as my knowledge goes the decennial increase per cent. in Palestine is unprecedented within the last fifty years.—E.M.

² The nomads of Beersheba were not enumerated in 1922. An area co-efficient was applied to Beersheba on the basis of various tithe returns and comparison with the enumeration of the nomads in the Beisan sub-district.—E.M.

Movement of population 1914 - 1931
 All Religions, Moslems, Jews, Christians
 Singly Logarithmic Scales.

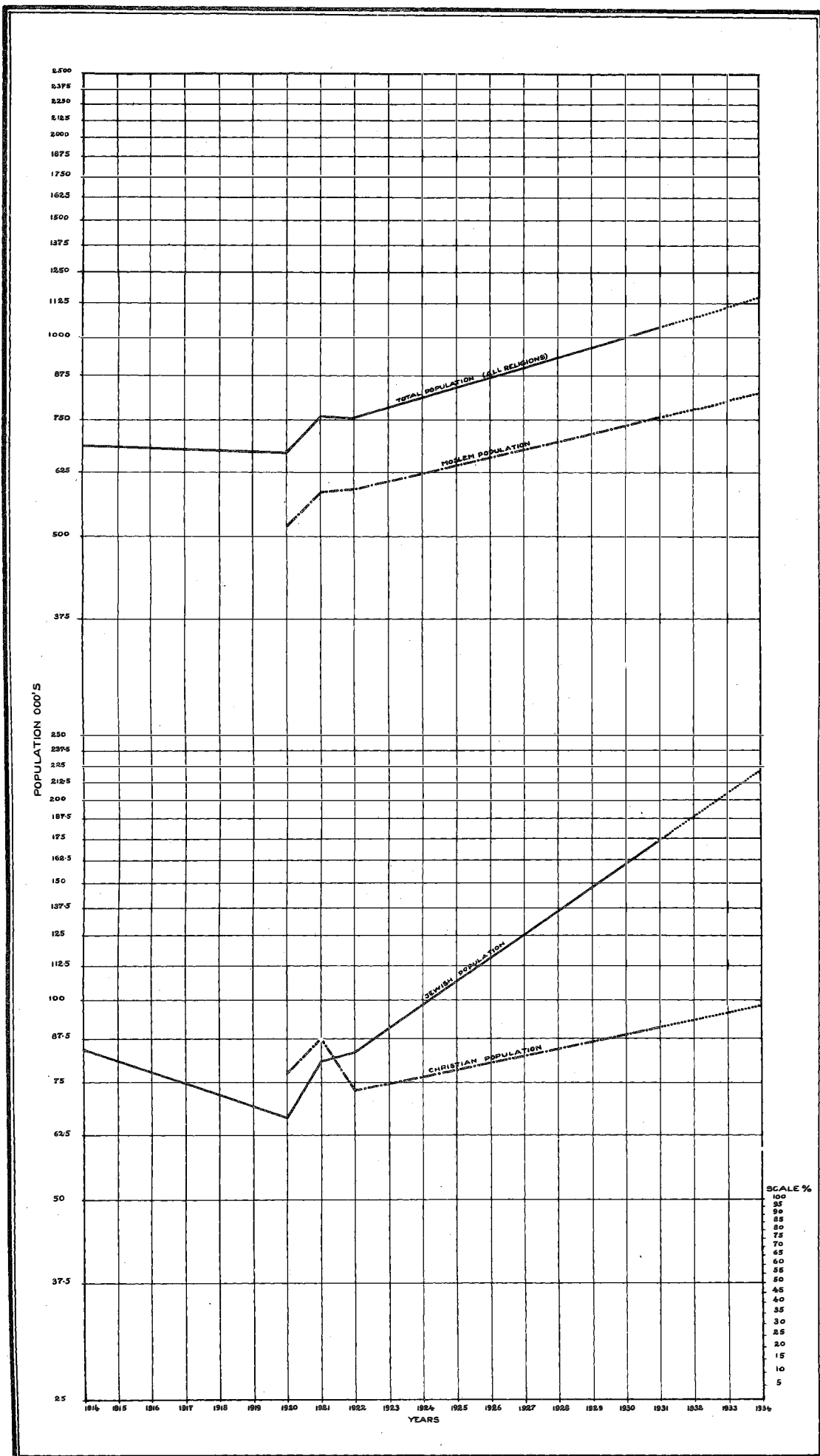


DIAGRAM No. 7.

implies that the aggregate errors in the two enumerations are of the same order in relation to the true aggregates. The following table gives the reconciliation between the two censal populations :—

MOVEMENT OF POPULATION 1922-1931.

ooo's omitted.

Details of movements and closures at censuses of 1922 and 1931	Remarks
Census 1931 1,036	Census, 18th November, 1931.
Census 1922 757	Census, 23rd October, 1922.
Births less deaths recorded 176	Recorded annually for registration area which is Palestine less Beersheba sub-district.
Births less deaths unrecorded 20	Beersheba estimated 5,000; defective registration of births (about 2,000* p.a.) 18,000; infants not enumerated 4,500†
Transferred from Syria 1923 10	Estimated at time of rectification of northern boundary of Palestine.
Arrivals less departures 57	Recorded by Director of Immigration.
His Majesty's Forces 3	Not included in records of migration.
Persons illegally in country at census 1931 9	The number of applications for registration under the privileges granted was about 3,000 concerning about 9,000 persons.
Unknown 4	Probably immigrants from Syria and Trans-Jordan not entered in records of migration**.

*†There are reasons for supposing that while the total population declared at the census 1922 is reliable the Bedu population of Beersheba did not exceed 45,000 persons the compensation being provided by a short count in the settled population of that year; and that the natural rate of increase of the Bedu is very perceptibly smaller than that of the settled population. The analysis in Chapter V (Age) shows that there is defective registration of births to the extent of about 2,000 per annum, and that there was, as in all censuses throughout the world, a short count of young infants to the total of about 4,500.

**Inhabitants of the limotrophic districts on the northern boundary are free to move across the boundary without hindrance, and the records of migrants from Trans-Jordan are certainly defective. In the circumstances of Palestine the discrepancy must be considered as remarkably small.

34. The proportionate increases in nine years can be imagined as the aggregate effects of steady annual increases of homogeneous populations throughout the period. The annual increases on this basis, together with the number of years within which each population would just double itself granted a maintenance of the rate of increase, are shown in the following table and illustrated in Diagram No. 7 drawn on arithmetic scales for time and logarithmic scales for increase :—

Annual rate of increase.

ANNUAL INCREASE PER TEN THOUSAND OF POPULATION 1922-1931.

Religion	Annual increase per 10,000	If increase is maintained, number of years within which population just doubles itself**.
All religions	354	20
Moslems	283	25
Jews	850	9
Christians	251	28

**The number of years n , in which a population, increasing at an annual unit rate r , is doubled, is given by

$$\begin{aligned} (1+r)^n &= 2 \\ \therefore n \log_e (1+r) &= \log_e 2 = 0.693147 \\ \therefore n &= \frac{0.69315}{\log_e (1+r)} = \frac{0.69315}{r \left(1 - \frac{r}{2} + \frac{r^2}{3} - \dots\right)} \end{aligned}$$

Neglecting powers of r greater than the second,

$$n = \frac{0.69315}{r} \left(1 + \frac{r}{2}\right) = \frac{0.693}{r} + 0.347$$

During the years 1906–1911, the population of Canada increased at the rate of 298 persons per ten thousand, so that the annual increase of the total population of Palestine is considerably in excess of that in the Dominion that showed the greatest annual increase in the last twenty five years. In the diagram, the curves have been produced to 1934 in order to give an idea of the approximate populations should the rates of increase in Palestine during the last nine years be maintained for a further two years. The fact that the present population will double itself within twenty years at the present rate of increase must naturally and properly lead to speculation as to its means of subsistence. Several factors must be taken into account. Natural increase and migration bear upon the movement of the population; economic circumstances, determined by the whole world, bear upon the subsistence available and control, in some way imperfectly understood, both migration and natural increase; and, finally, both migration and natural increase influence economic circumstances within Palestine itself. In a comparatively small population, inhabiting a country lacking obvious natural resources, migration is an important factor. It can operate on the population by the actual addition or withdrawal of persons; by changing the age constitution of the population, it can alter its fertility; and, in relation to general economic conditions, it can better or worsen the conditions favourable to the rate of increase of the total population. Of the past history of migration it is true to say that, as human intelligence and industry come into play, the means of livelihood have been extended, and hence, as population has multiplied, the production of material subsistence has increased. The effective question to which no effective answer can yet be returned is concerned, in Palestine, with the possibility of relating human intelligence to the material resources in such a way that increasing production of subsistence for the population can keep pace with the growth of the population itself. A population depends for its subsistence on what it can acquire by its own efforts applied to the natural resources of its own country, and by purchase from other countries. Its ability to purchase depends upon its ability to produce a surplus for sale from its own natural resources, and is also derived from invisible import of value which, in Palestine, takes the form of liberal contributions to Christian charities and religious foundations; to Jewish enterprise, under the impulse engendered by the ideal of a Jewish National Home in Palestine; and to Jewish charitable and religious institutions. These contributions have naturally diminished during the economic disturbances affecting the world during the last two years. Nevertheless, Palestine, as a buying country, its imports being about eight times the value of its exports, by reason of the fact that world prices have fallen, has not yet experienced the economic discomforts shared by selling countries. But, when world conditions are restored, that is, when world prices are raised to a level of proper adjustment between supply and demand, the problem in Palestine will be to meet the demand for subsistence by proportionate increases in export trade, and in the Christian and Jewish invisible contributions of value upon which the whole population relies, perhaps unconsciously. Without these proportionate increases in imported invisible value and in internal production of special supplies surplus to the internal requirements of the country and so available for sale abroad, it is difficult to see how the rate of increase of subsistence for the population is to keep pace with the growth of that population.

**Malthusian
equivalent
interval.**

35. It is many years since Malthus advanced his theory of population which, in essence, was that it is only in certain circumstances that an additional producer in a population will produce as much subsistence as is produced on the average by producers already in existence and engaged in production. The corollary of the theory is that checks on the growth of population are in operation at all times and in all places. In a more precise form, Malthus stated his principle as a proposition to the effect that, if subsistence increases in arithmetical while population increases in geometrical progression, the latter must inevitably

overtake and surpass the former¹. This principle, of course, was intended to apply to large aggregates of population: and, while the assumption as to arithmetical progression of the means of life is no longer accepted in that crude form², the general truth of the proposition is not disputed. It is, therefore, of interest to imagine Palestine as maintaining a population at its present rate of increase but linked to the world only by its small export trade and by its large invisible imports of value, and to calculate its Malthusian equivalent intervals³, that is, the intervals of time, with a population increasing continually at a given rate, and the food resources increasing by uniform annual amounts, before the population overtakes its means of subsistence. In the following table, the rate of increase of the Palestine population is assumed to be 300 per ten thousand⁴, and three cases are given where the annual increase of food supplies is initially double, four and eight times that at which the population is continually increasing:—

⁵MALTHUSIAN EQUIVALENT INTERVALS CORRESPONDING TO A RATE OF INCREASE OF POPULATION OF 300 PER 10,000 PER ANNUM.

Number of times increase of food supply initially exceeds needs of increase of population	Number of years before population overtakes food supply, the former increasing as ert where $r = .03$ (i.e. 300 per 10,000)
2	42
4	78
8	111

It is, of course, extremely difficult and intricate to determine how the food resources of Palestine or any country are increasing, for there are many imponderables in such questions not susceptible, at any rate to the present day, of mathematical expression: but, seeing that the value of imports into Palestine is about eight times the value of the exports, that re-exports are small in value, and that these imports depend on invisible contributions of value fluctuating with world economic conditions, it seems doubtful whether Palestine can rely upon an annual increase of food resources always ahead of the increase of its population at the present annual rate.

Undoubtedly, the annual increase of subsistence so far has been due to the policy of immigration. Immigration has not only stimulated local production and so enabled the sale of Palestine produce abroad, but has introduced invisible import of value into the country and so raised the capacity to purchase its requirements where these are not satisfied by internal production. It is, however,

¹ Malthus may have used these conceptions in a figurative sense not intending to imply that they were matters of fact.—E.M.

² Production appears to move by violent fluctuations and, at the present time, the main difficulties are due to maldistribution and not to lack of supply.—E.M.

³ G. H. Knibbs. *The Mathematical Theory of Population*. Appendix A. *Census of the Commonwealth of Australia, 1911*.—E.M.

⁴ It is 354 per ten thousand for the period 1922–1931.—E.M.

⁵ Let F_0 and P_0 be the initial food supply and population respectively, and F_t and P_t their values at the end of t years. Suppose that the increase in food production is continually in the ratio $(1 + at)$, where t is the number of years from an assigned moment at which $t = 0$ so that $F_t = F_0 (1 + at)$. Suppose, also, that the increase of population in the same period is continually e^{rt} so that $P_t = P_0 e^{rt}$. Let $a = Rr$ where R may be presumed greater than unity. Then for small values of t the increase in the food supply is considerably greater than the increase in the population. The Malthusian equivalent interval is the number of years t given by the equality of the two increases, that is,

$$1 + Rrt = e^{rt}$$

This equation in t can be solved by successive approximations, or by trial from tables of the value of the exponential, and since r is given, t is known. Thus, after a number of years, even though the food supply be increased as rapidly as the hypothesis requires, there will be, on the assumptions of Malthus, a time at which the food supply just satisfies the requirements of the population and no more, although, in the interim, the subsistence is in excess of that required for the population. See foot note 3.—E.M.

important that there should be at least a proportionate increase in exports and in invisible contributions of value when world conditions have improved; and that energies should be directed towards the full utilization of all the natural resources of the country; for a time may come when the supply of population by natural increase will overtake the means by which its subsistence has been, so far, secured, those means being its own creation of producers and the increase in its capacities to purchase its requirements abroad. The terminus of the Malthusian equivalent interval is, of course, never reached, because the conditions postulated in the mathematical problem are never completely satisfied; for the corollary to the theory applies throughout the interval, and the population checks its own growth by such means as are consciously or unconsciously at its disposal. Nevertheless, if Christian and Jewish contributions, constituting invisible import of value, were suddenly to cease, it is certain that a proportion of the population would in a short time be forced to live on the starvation line until the general standard of life of all the population had been lowered in adaptation to the conditions created by a sudden reduction in purchasing capacity.

Variation in natural population.

36. The natural population of an area at a given time is the surviving native-born population wherever it may be found at the time. For Palestine, as a whole, it is equal to the sum of the enumerated population and native-born emigrants less the population of foreign-born immigrants. A discussion as to the means adopted for ascertaining the natural population is given in Chapter III (Birthplace), and it is sufficient to say, here, that it is becoming increasingly difficult to obtain the necessary data, so that the utility of the natural population as a statistical conception is diminishing. In Palestine, it is not possible to be accurate as to the exact dimensions of the natural population either of 1922 or 1931: but Subsidiary Table No. II gives the variation, absolute and proportionate, between the estimates for those two censal years. The absolute increase is given as 195,594 persons, which represents an increase of 26.2 per cent. over the natural population of 1922. The absolute figure, given for the natural population in 1922 and in 1931 may be, if anything, too low. In general, however, the figures cannot be greatly wrong. Three different methods were employed in the attempt to solve the problem, and all three methods gave, within an error of $\pm 5,000$, the same results for the absolute figures. Moreover, these methods involved no calculations based on natural increase¹, yet the increase in the natural population, which is due to the difference between births and deaths and is not influenced by migration, is 26.2 per cent. during the nine years 1922–1931, an increase roughly equivalent to that of the actual Moslem population in Palestine, the Moslem population being itself the overwhelming part of the natural population and practically undisturbed by migration. The results are, therefore, consistent with expectations derived from consideration of the movement of that part of the natural population which is in Palestine, namely, practically the whole of the Moslem population and a very large proportion of the local Christian population. In effect the results mean that there are about thirty eight thousand persons in other countries who were born in Palestine, that is, who are emigrants in the true sense of that term. The figure given in 1922 was approximately 22,000, so that, making allowance for losses by death among previous emigrants, at least eighteen thousand to twenty thousand native-born persons have emigrated from Palestine during the nine² intercensal years 1922–1931.

Variation in districts and natural divisions.

37. The variation in the administrative areas will be found in Subsidiary Table No. I at the end of this chapter. The principal increases will be found in the Jaffa sub-district (123 per cent.), Haifa sub-district (69 per cent.), Jerusalem sub-district (45 per cent.), Ramle sub-district (44 per cent.) and Beisan sub-district

¹ Except for gains and losses by births and deaths in the emigrant population, principally in America.—E.M.

² Records of prospective native-born emigrants have been taken only since 1925, and are unreliable over the whole period 1922–1931. In Chapter III it is shown by another method that the number of native-born emigrants is about twenty thousand persons for the period.—E.M.

(42 per cent.). Jericho sub-district returns an increase of nearly 82 per cent. but there is reason to suppose that, at the time of the enumeration, 1931, a number of inhabitants had left Jerusalem to take up winter residence in Jericho, so that the effective increase is considerably less than that shown. The population employed by the Dead Sea Potash Company has, of course, materially increased the population of the Jericho sub-district by the process of temporary and permanent migration. Safad sub-district also shows a high increase (74 per cent.), but this is due to the accretion of population transferred from Syria on the rectification of the northern boundary of Palestine in 1922-1923. Beersheba sub-district returns a decrease of about 31 per cent. This is fictitious, and is due to the incorrectness of the methods employed in 1922 to ascertain the probable population of that sub-district, these methods leading to an inflated estimate¹. No statistics of births and deaths among the Beduin of Beersheba are available; but there are indirect reasons, as will be shown in a later chapter, for supposing that the rate of natural increase of the Bedu population of Beersheba is lower than the general rate for the settled population. The sub-district of Bethlehem also returns a decrease of about 3.6 per cent. due, no doubt, to emigration on the part of the Christian population to countries abroad and from the town of Beit Jala to other parts of Palestine or, perhaps, to Egypt. All these changes are necessarily reflected in the comparative statistics of mean densities which will also be found in the Subsidiary Table.

It will have been appreciated from the observations in the preceding chapter that it is of more significant interest to ascertain the variation of the population in the natural divisions, administrative divisions introducing artificiality into the population statistics. The populations of 1922 and 1931 were therefore classified according to the tentative scheme of natural divisions suggested in the preceding chapter. The following table divided into two sections embodies the results:—

COMPARATIVE STATISTICS SHOWING VARIATION OF POPULATION 1922-1931.
(a) PROPORTIONATE DISTRIBUTION OF POPULATION BY NATURAL DIVISIONS.

Natural Division	1931		
	Area† per cent.	Population per cent.	Population less urban per cent.
PALESTINE	100.0	100.0	100.0
Nejeb	46.6	5.0	6.4
Jordan Valley	4.4	0.3	0.4
Maritime Plain	14.8	38.2	37.2
Central Range	21.8	36.0	35.6
Esdraelon and Emek	6.7	12.3	9.7
Galilee	5.7	8.2	10.7

Natural Division	1922		
	Area† per cent.	Population per cent.	Population less urban per cent.
PALESTINE	100.0	100.0	100.0
Nejeb	47.0	9.9	12.1
Jordan Valley	4.5	0.3	0.3
Maritime Plain	15.0	32.0	31.3
Central Range	22.0	38.3	36.5
Esdraelon and Emek	6.9	11.8	10.4
Galilee	4.6	7.7	9.4

†The area of Palestine in 1931 is estimated at 25,483 square kilometres and in 1922 at 25,255 square kilometres.

¹ It may be of interest that, in 1919-1920, when I was in charge of the Gaza military district, I estimated that the nomadic population of Beersheba sub-district was about thirty five thousand. Some three years ago Mr. Miller, at that time administrative officer at Hebron, and responsible for an area including Beersheba sub-district, estimated their number at forty thousand to forty five thousand persons.—E.M.

Urban and rural population
1922 - 1931
by sub-districts.

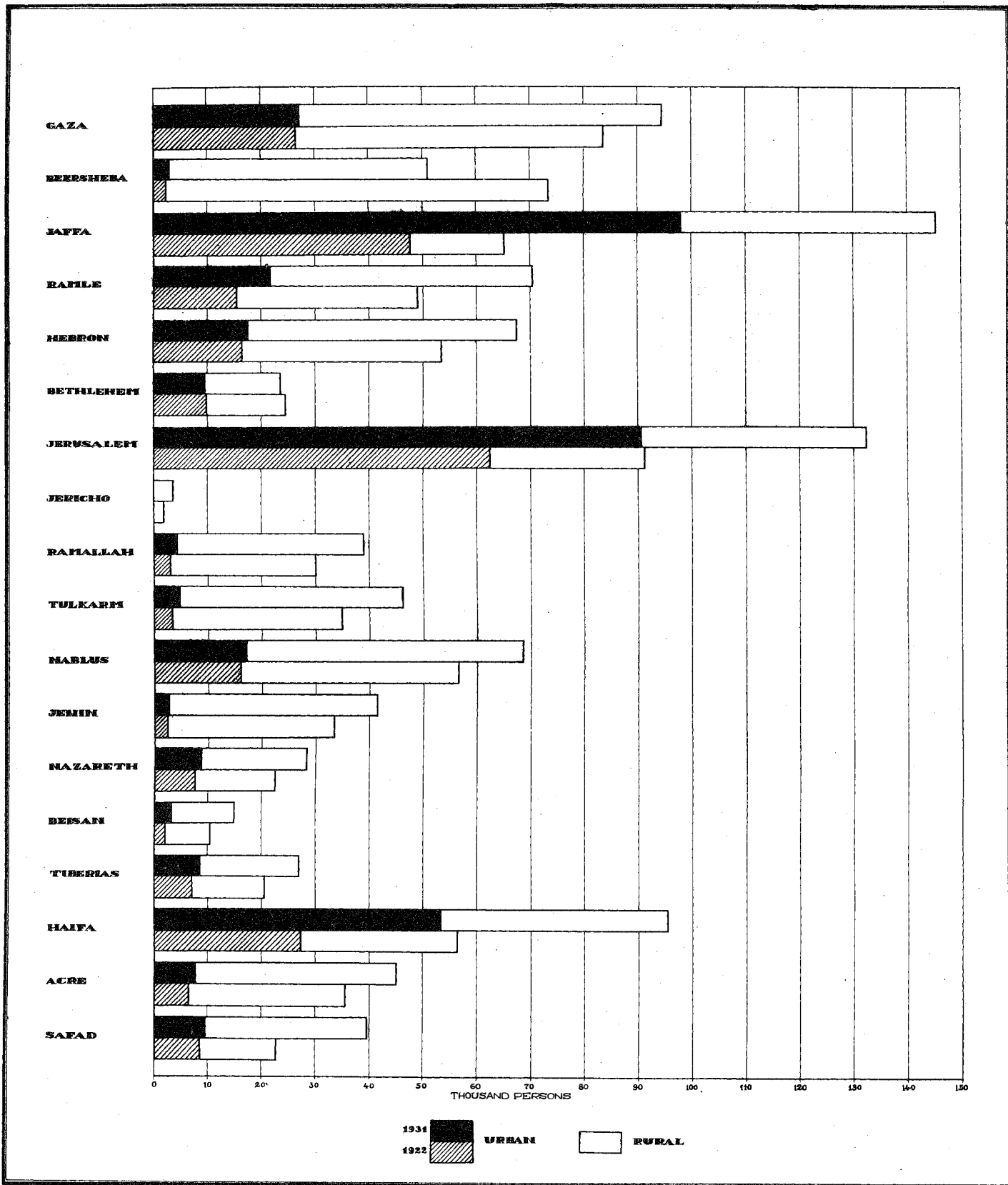


DIAGRAM No. 8.

COMPARATIVE STATISTICS SHOWING VARIATION OF POPULATION 1922-1931.—*Continued.*
(b) VARIATIONS IN THE NATURAL DIVISIONS DURING THE NINE YEARS 1922-1931

Natural division and religion.	Total population				Natural population			
	Actual population		Absolute variation Decrease (-)	Percentage variation Decrease (-)	Actual population		Absolute variation	Percentage variation
	1931	1922			1931	1922		
PALESTINE ...	1,035,821	757,182	278,639	36.8	940,944	745,350	195,594	26.2
Nejeb ...	51,082	75,254	-24,172	-32.1	...	...	...	...
Jordan Valley ...	3,483	1,919	1,564	81.5	...	...	...	...
Maritime Plain ...	395,350	242,671	152,679	62.9	...	...	...	...
Central Range ...	373,196	289,690	83,506	28.8	...	...	...	...
Esdraelon and Emek ...	127,855	89,323	38,532	30.1	...	...	...	...
Galilee ...	84,855	58,325	26,530	45.5	...	...	...	...
Moslems ...	759,712	590,890	168,822	28.6	...	...	...	...
Jews ...	174,610	83,794	90,816	108.4	...	...	...	...
Christians ...	91,398	73,024	18,374	25.2	...	...	...	...

Natural division and religion.	Total population less urban population §				Mean density per square kilometre*			
	Actual population		Absolute variation Decrease (-)	Percentage variation Decrease (-)	Actual popu- lation	Less urban	Actual popu- lation	Less urban
	1931	1922							1931	1922
PALESTINE ...	794,824	622,261	172,563	27.7	40	26	30	19
Nejeb ...	51,082	75,254	-24,172	-32.1	4	4	6	6
Jordan Valley ...	3,483	1,919	1,564	81.5	3	3	2	2
Maritime Plain ...	295,339	194,962	100,377	51.5	105	78	64	52
Central Range ...	282,693	227,112	55,581	24.5	67	51	52	41
Esdraelon and Emek ...	77,372	64,689	12,683	19.6	75	46	51	37
Galilee ...	84,855	58,325	26,530	45.5	59	59	50	50
Moslems ...	...	...	...	...	...	...	...	...
Jews ...	...	...	...	...	...	...	...	...
Christians ...	...	...	...	...	...	...	...	...

§ Urban population in this table is the population of Jaffa, Tel Aviv, Jerusalem and Haifa including suburbs so named in the volume entitled:—*Population of Villages, Towns and Administrative Areas—1931.*

*The estimated area of Palestine in 1931 was 25,483 square kilometres, and in 1922 was 25,255 square kilometres. See paragraph 13 (Chapter I).

In order to interpret these statistics it is well to keep in mind the main causes affecting the movement of population in the natural divisions. Broadly speaking, changes in the Maritime Plain are due to natural increase and immigration: changes in the Central Range are due to natural increase, immigration being a negligible feature except in Jerusalem Town; changes in Esdraelon and Emek are due to natural increase and immigration: changes in Galilee are due to natural increase and additions to populations by transfer from Syria.

In 1922 the rural population of the Maritime Plain was 31 per cent. of the total rural population: in 1931 it was 37 per cent. The Central Range accommodated nearly 37 per cent. of the rural population in 1922, and in 1931 nearly 36 per cent. On the other side, the rural population of the Maritime Plain increased during the intercensal period by nearly 52 per cent., while that of the Central Range by less than 25 per cent. Now the rural population of the Central Range is to all intents and purposes Arab, mostly Moslem but in very small part Christian, and, if there were no cause of change other than natural increase, there is a legitimate expectation of an increase of about 28 per cent. during the intercensal period. Since the increase in the Central Range is only 25 per cent., the inference may be drawn that emigration from the Central Range has taken place¹.

¹ Further evidence supporting this conclusion is given by the change in sex proportions. The following table illustrates the point:—

	Number of females per 1,000 males	
	1931	1922
Moslems... ..	968	957
Central Range ...	1,017	989

The fact that the number of females now exceeds the number of males in the Central Range, while there has been a marked deficiency in females in the settled Moslem population throughout the period, points to the emigration of males.

See Chapter VI (Sex).—E.M.

Now, it is known that there is Christian emigration from Ramallah and Bethlehem to other countries; this emigration is of importance to the very small populations from which the emigrants are drawn, but is insignificant in relation to the total population of the Central Range (373,000 persons). It is also known that the number of Moslem emigrants is so small as to be negligible. Consequently it may be concluded that emigration from the Central Range is almost entirely to other parts of Palestine. The relatively small intercensal increase in Esdraelon and Emek (19.6 per cent.) rules out, in all probability, the possibility of significant movement from the Central Range to that natural division; the increase in Galilee is about the same as that of the natural population if allowance be made for the increase due to transfer of population from Syria; it follows that the emigration from the Central Range is towards the Maritime Plain. This is in complete obedience to economic laws: development attracts productive labour from areas where development is not anticipated, or where livelihood is stationary.

The movement from the Central Range is, of course, in part due to the increasing density of population. In 1922 there were in this division 41 persons per square kilometre¹, in 1931 the number had risen to 51; but the density in the Maritime Plain had increased during the same period from 52 to 78 persons per square kilometre. That is, in the former case the density had increased by 25 per cent. and in the latter by 50 per cent. No doubt the soil of the Maritime Plain is more fruitful or fructifiable than that of the Central Range; it has also been shown that the proportion of cultivable land is very much greater in the Maritime Plain than in the Central Range: but these features are also features of Esdraelon and Emek, where the increase in density per square kilometre is not as high as 25 per cent. It is, therefore, legitimate to infer that development is the main attraction of emigration from the Central Range, and that the closer "packing" of the population in the Maritime Plain, so far from driving people away either from Palestine or to the other parts of Palestine, has had the effect of attracting people from the hill country and so relieving the population and soil pressures in that area².

38. After the preceding discussion on the variation in the natural divisions, the statistics of variation in sub-districts classified according to their densities in 1922 lose much of their interest. These statistics will be found in Subsidiary Table No. *III* at the end of this chapter, and it will be seen that they are relatively meaningless unless interpreted by the knowledge given by the changes in the rural population in the natural divisions and in the urban population of the four principal towns.

Variation by sub-districts classified according to density in 1922.

39. The general statistics of the movement of population in towns are given in Subsidiary Tables No. *IV* and *V* at the end of this chapter. In this general sense they are illustrated in Diagram No. 9. Both the statistics and the diagram suffer the defect that the increment of population due to enlargement of municipal boundaries and the inclusion of new areas is not revealed, for the reason that it is not known. The boundaries of the towns in 1922 were in some cases uncertain and in most cases were not recorded, so that the plan of division of towns into areas for the census of 1931 contained no indication of the census town of 1922. Now that the towns are obliged to declare their boundaries formally under legal enactment, a proper record should be maintained of the exact boundaries used for the census 1931 and of any change during the current intercensal interval. If that be done, it will be possible at the next census to construct plans of division of towns into census areas which will permit of tabulations showing the changes

Variation in towns.

¹ The figures relate to rural population only.—E.M.

² It is impossible to predict future movements. So far as I am aware, there is no reliable estimate of optimum density for either the Maritime Plain or the Central Range. The application of growing human intelligence and experience obviously changes the *lot viable*. It seems to be necessary to concentrate skilled attention on the agricultural possibilities in the hill country if the *lot viable* is, on the average, to be reduced with an improving standard of life.—E.M.

Proportion per cent of the population of each sub-district living in rural and urban areas 1922 and 1931, and marked according to population 1931.

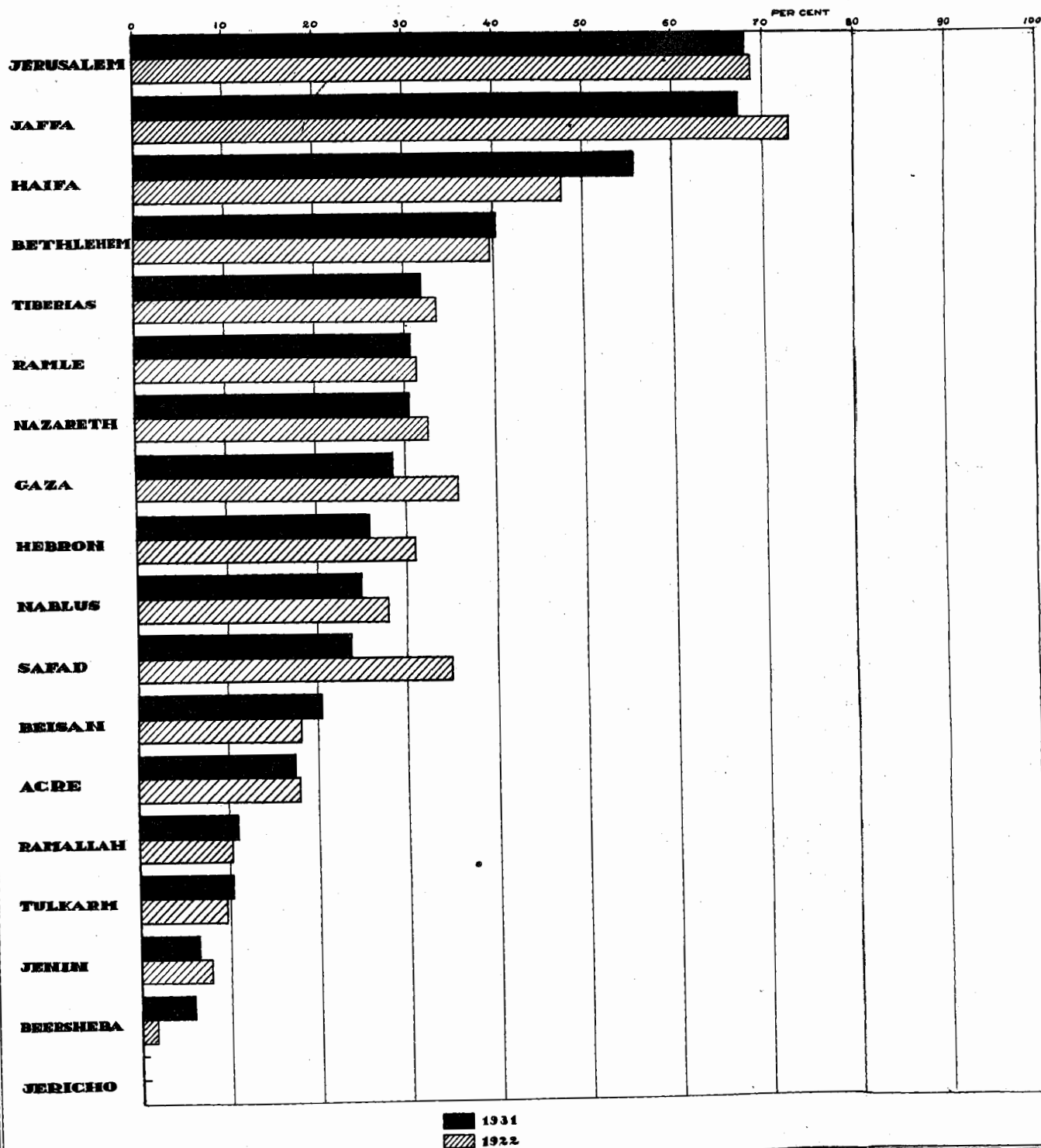


DIAGRAM No. 9.

in population due to changes in the town boundaries. The total urban population has increased by nearly 47 per cent ; and now forms 37.4 per cent. of the total population while, in 1922, it formed not quite 35 per cent. The towns of Jaffa and Haifa which, in 1922, possessed populations lying between twenty thousand and fifty thousand persons have now passed into the higher class of towns possessing a population of fifty thousand to hundred thousand persons, accounting for a total increase of 208 per cent. in this category of the population, with a consequential loss of 36 per cent. in the next lower category. A similar phenomenon is observed on a much smaller scale in regard to towns which, in 1922, possessed a population lying between five thousand and ten thousand persons and which are now in the class of towns possessing a population of ten thousand to twenty thousand persons. At the next census the town of Jerusalem will almost certainly have passed into the class of towns having a population of hundred thousand persons and more, and there will be a compensatory loss in the class from which it will have been promoted.

**General
concluding
observations.**

40. In so far as growth of population is a measure of prosperity, the past decade is witness to the effects of British administration on a population depressed by the lack of initiative characteristic of the pre-war Ottoman Empire. That this depression had not devitalized the people is clear from the remarkable natural increase of the population. That this remarkable increase is concomitant with an increase due to an effective immigration from outside Palestine is perhaps an indication that the two movements are not uncorrelated. This immigration itself stimulates production and a more effective utilization of natural resources so that a larger population may be supported ; and associated with this immigration is an import of valuable commodity by means of which the population as a whole has enlarged its capacity of purchase, and consequently, its prospects of supporting its own growth. On the other side, the experience of the world shows that this process is not capable of indefinite extension in time ; and, within a future that is measurable, there will be required in Palestine a much greater rate of the growth of production, and a much more intense utilization of the natural resources combined with invisible import of value, if the present dual process in the growth of the population is to continue. The effect of immigration is, in any case, considerable in Palestine, and must be considered in relation to a general theory of population. According to orthodox economic theory, over-population is not the primary cause of unemployment ; its immediate effect appears to be a generally reduced standard of life, while the primary cause of unemployment appears to lie in the malorganization of, or some maladjustment in industrial life. There are no reliable statistics of unemployment, under any definition, available in Palestine ; but it is clear that maladjustment of industrial life is possible, and may be intensified, if it already exists, where industrial development, partially dependent on immigration, is directed along the exclusive lines of " race " or " nationality ". It would seem, therefore, that the twofold growth of population in Palestine is of the greatest value to the country so long as exclusiveness in economic life is avoided. The test of the movement of population will be the character of the variation in real wages : if wages advance *pari passu* with growth of population, the whole country benefits : if wages retreat then grounds may exist for assuming that maladjustment in economic life has taken place. The causes for that maladjustment may very well be obscure, but exclusive development will certainly require examination as a possible contributory. It is not without significance that countries such as India, which are, with good reason, supposed to be over-populated, have no great problem of unemployment¹ but have a low standard of life. If personal income decline while the output of personal energy is the same, the inevitable reaction is to work less ; production then diminishes and the situation becomes worse. The mode of growth of the population in Palestine, is, therefore, greatly important, more important, indeed, than the quantitative character of that growth.

¹ There is a suggestion that unemployment seems to have occurred in certain areas in India where the boycott of foreign goods has been enforced. If that be the case, it affords an excellent example of economic maladjustment following a policy of exclusiveness.—E.M.

SUBSIDIARY TABLE No. I.

Variation in relation to density since 1922.

(Total population).

DISTRICT AND SUB-DISTRICT	Percentage increase in population 1922-1931 Decrease (—)	Mean density per square kilometre	
		1931	1922
1	2	3	4
*PALESTINE	36.8	41	30
SOUTHERN DISTRICT	38.2	26	18
Gaza Sub-district	28.1	79	60
Beersheba Sub-district	— 30.5	4	6
Jaffa Sub-district	122.8	434	195
Ramle Sub-district	43.8	87	60
JERUSALEM DISTRICT	32.4	63	47
Hebron Sub-district	26.2	32	25
Bethlehem Sub-district	— 3.6	46	47
Jerusalem Sub-district	45.3	316	217
Jericho Sub-district	81.5	5	3
Ramallah Sub-district	30.2	72	55
*NORTHERN DISTRICT	38.6	58	44
Tulkarm Sub-district	32.5	62	47
Nablus Sub-district	21.2	43	35
Jenin Sub-district	23.5	52	42
Nazareth Sub-district	26.1	56	45
Beisan Sub-district	41.6	38	24
*Tiberias Sub-district	30.2	60	46
Haifa Sub-district	69.1	93	55
*Acre Sub-district	27.0	62	53
*Safad Sub-district	74.3	56	46

*Inclusive of changes in area.

SUBSIDIARY TABLE No. II.

Variation in natural population 1922 — 1931.

1931				1922				Increase per cent. 1922-1931
Actual population	Immigrants	Emigrants	Natural population	Actual population	Immigrants	Emigrants	Natural population	
1,035,821	132,692	37,815	940,944	757,182	33,038	21,206	745,350	26.2

SUBSIDIARY TABLE No. III (a).
Variation by sub-districts classified according to density.
 (a) *Actual variation.*
 1922 — 1931

DISTRICT AND SUB-DISTRICT	Variation 1922-1931	Variation in sub-districts with a population per square kilometre in 1922 of								
		2.8	6.3	20-30	30-40	40-50	50-60	60-70	195	217
1	2	3	4	5	6	7	8	9	10	11
PALESTINE...	+ 278,639	+ 1,564	-22,382	+ 18,504	+ 12,011	+ 47,433	+ 57,679	+ 42,253	+ 80,188	+ 41,389
SOUTHERN DISTRICT ...	+ 100,059	...	-22,382	...	...	...	...	+ 42,253	+ 80,188	...
Gaza Sub-district	+ 20,749	...	...	...	...	...	...	+ 20,749	...	...
Beersheba Sub-district	- 22,382	...	-22,382	...	...	...	...	...	...	...
Jaffa Sub-district	+ 80,188	...	...	...	...	...	...	...	+ 80,188	...
Ramle Sub-district	+ 21,504	...	...	...	...	...	...	+ 21,504	...	...
JERUSALEM DISTRICT ...	+ 65,182	+ 1,564	...	+ 14,060	...	- 888	+ 9,057	...	...	+ 41,389
Hebron Sub-district	+ 14,060	...	...	+ 14,060	...	...	...	...	...	...
Bethlehem Sub-district	- 888	...	...	...	...	- 888	...	...	...	...
Jerusalem Sub-district	+ 41,389	...	...	...	...	...	...	...	...	+ 41,389
Jericho Sub-district	+ 1,564	+ 1,564	...	...	...	...	...	...	...	...
Ramallah Sub-district	+ 9,057	...	...	...	...	...	+ 9,057	...	...	...
NORTHERN DISTRICT ...	+ 113,398	...	...	+ 4,444	+ 12,011	+ 48,321	+ 48,622	...	...	...
Tulkarm Sub-district	+ 11,356	...	...	...	...	+ 11,356	...	...	...	...
Nablus Sub-district	+ 12,011	...	...	...	+ 12,011	...	...	...	...	...
Jenin Sub-district	+ 7,877	...	...	...	...	+ 7,877	...	...	...	...
Nazareth Sub-district	+ 5,911	...	...	...	...	+ 5,911	...	...	...	...
Beisan Sub-district	+ 4,444	...	...	+ 4,444	...	...	...	...	...	...
Tiberias Sub-district	+ 6,254	...	...	...	...	+ 6,254	...	...	...	...
Haifa Sub-district	+ 39,015	...	...	...	...	...	+ 39,015	...	...	...
Acre Sub-district	+ 9,607	...	...	...	...	...	+ 9,607	...	...	...
Safad Sub-district	+ 16,923	...	...	...	...	+ 16,923	...	...	...	...

SUBSIDIARY TABLE No. III (b).
Variation by sub-districts classified according to density.
 (b) *Proportional variation.*
 1922 — 1931

DISTRICT AND SUB-DISTRICT	Percentage increase in popula- tion 1922-1931 (-) Decrease	Variation per cent. in sub-districts with a population per square kilometre in 1922 of								
		2.8	6.3	20-30	30-40	40-50	50-60	60-70	195	217
1	2	3	4	5	6	7	8	9	10	11
PALESTINE...	*36.8	+ 81.5	- 30.5	+ 28.8	+ 21.2	+ 29.8	+ 47.3	+ 34.4	+ 122.8	+ 45.3
SOUTHERN DISTRICT ...	38.2	...	- 30.5	...	...	...	...	+ 34.4	+ 122.8	...
Gaza Sub-district	28.1	...	...	...	...	...	...	+ 28.1	...	...
Beersheba Sub-district	- 30.5	...	- 30.5	...	...	...	...	...	...	...
Jaffa Sub-district	122.8	...	...	...	...	...	...	...	+ 122.8	...
Ramle Sub-district	43.8	...	...	...	...	...	...	+ 43.8	...	...
JERUSALEM DISTRICT ..	32.4	+ 81.5	...	+ 26.2	...	- 3.6	+ 30.2	...	...	+ 45.3
Hebron Sub-district	26.2	...	...	+ 26.2	...	...	...	...	...	...
Bethlehem Sub-district	- 3.6	...	...	...	...	- 3.6	...	...	...	...
Jerusalem Sub-district	45.3	...	...	...	...	...	...	...	...	+ 45.3
Jericho Sub-district	81.5	+ 81.5	...	...	...	...	...	...	...	...
Ramallah Sub-district	30.2	...	...	...	...	...	+ 30.2	...	...	...
NORTHERN DISTRICT ...	*38.6	...	...	+ 41.6	+ 21.2	+ 35.9	+ 52.9	...	...	...
Tulkarm Sub-district	32.5	...	...	...	...	+ 32.5	...	...	...	...
Nablus Sub-district	21.2	...	...	...	+ 21.2	...	...	...	...	...
Jenin Sub-district	23.5	...	...	...	...	+ 23.5	...	...	...	...
Nazareth Sub-district	26.1	...	...	...	...	+ 26.1	...	...	...	...
Beisan Sub-district	41.6	...	...	+ 41.6	...	...	...	...	...	...
Tiberias Sub-district	*30.2	...	...	...	...	+ 30.2	...	...	...	...
Haifa Sub-district	69.1	...	...	...	...	...	+ 69.1	...	...	...
Acre Sub-district	*27.0	...	...	...	...	...	+ 27.0	...	...	...
Safad Sub-district	*74.3	...	...	...	...	+ 74.3	...	...	...	...

*Inclusive of changes in area.

SUBSIDIARY TABLE No. IV.

Certain statistics of towns.

TOWN	Population in 1931	Number of persons per metric dunam	Number of females per 1,000 males	Proportion of foreign born per mille	Percentage of variation 1922—1931 Decrease(—)
1	2	3	4	5	6
PALESTINE	387,291	5.2	966	243	46.5
SOUTHERN DISTRICT	149,680	5.1	956	276	62.8
Gaza Town... ..	17,046	8.2	1,025	13	— 2.5
Khan Yunis Town... ..	5,811	*	1,043	35	— 2.0
Majdal Town... ..	6,226	16.8	1,016	1	22.2
Beersheba Town... ..	2,959	3.4	887	11	25.6
Jaffa Town... ..	51,866	3.0	871	141	59.5
Tel Aviv Town... ..	46,101	7.9	1,055	709	203.6
Lydda Town... ..	11,250	8.5	948	13	38.8
Ramle Town... ..	10,421	8.7	849	53	42.5
JERUSALEM DISTRICT	121,866	6.8	1,009	271	32.4
Hebron Town... ..	17,531	8.6	1,048	8	5.8
Beit Jala Town... ..	2,730	6.7	1,268	42	— 12.0
Bethlehem Town... ..	6,815	5.9	1,136	138	2.4
Jerusalem Town... ..	90,503	7.1	977	350	44.6
Ramallah Town... ..	4,287	2.6	1,208	36	38.1
NORTHERN DISTRICT	115,745	4.3	935	172	44.0
Tulkarm Town... ..	4,827	3.2	948	22	44.1
Nablus Town... ..	17,189	14.6	1,025	24	7.8
Jenin Town... ..	2,706	3.4	988	20	2.6
Nazareth Town... ..	8,756	3.5	981	89	17.9
Beisan Town... ..	3,101	6.6	854	86	59.8
Tiberias Town... ..	8,601	6.7	1,066	188	23.8
Haifa Town... ..	50,403	3.1	864	306	104.6
Shafa 'Amr Town... ..	2,824	*	994	15	23.4
Acre Town... ..	7,897	5.4	886	82	23.0
Safad Town... ..	9,441	8.3	1,058	66	7.1

* In calculating the density per metric dunam for the districts and Palestine the number of persons of the towns Khan Yunis and Shafa 'Amr have been excluded as the areas of these towns are not known.

SUBSIDIARY TABLE No. V (a).

Urban and rural population by district and sub-district 1922 — 1931.

DISTRICT AND SUB-DISTRICT	1931			1922			1931		1922	
	Total population	Urban population	Rural population	Total population	Urban population	Rural population	Per cent. urban	Per cent. rural	Per cent. urban	Per cent. rural
1	2	3	4	5	6	7	8	9	10	11
PALESTINE...	1,035,821	387,291	648,530	757,182	264,317	492,865	37.4	62.6	34.9	65.1
SOUTHERN DISTRICT ...	361,797	149,680	212,117	261,738	91,947	169,791	41.4	58.6	35.1	64.9
Gaza Sub-district	94,634	27,083	67,551	73,885	26,467	47,418	28.6	71.4	35.8	64.2
Beersheba Sub-district	51,082	2,959	48,123	73,464	2,356	71,108	5.8	94.2	1.8	98.2
Jaffa Sub-district	145,502	97,967	47,535	65,314	47,709	17,605	67.3	32.7	73.0	27.0
Ramle Sub-district	70,579	21,671	48,908	49,075	15,415	33,660	30.7	69.3	31.4	68.6
JERUSALEM DISTRICT ...	266,562	121,866	144,696	201,380	92,018	109,362	45.7	54.3	45.7	54.3
Hebron Sub-district	67,631	17,531	50,100	53,571	16,577	36,994	25.9	74.1	30.9	69.1
Bethlehem Sub-district	23,725	9,545	14,180	24,613	9,759	14,854	40.2	59.8	39.6	60.4
Jerusalem Sub-district	132,661	90,503	42,158	91,272	62,578	28,694	68.2	31.8	68.6	31.4
Jericho Sub-district	3,483	...	3,483	1,919	...	1,919	...	100.0	...	100.0
Ramallah Sub-district	39,062	4,287	34,775	30,005	3,104	26,901	11.0	89.0	10.3	89.7
NORTHERN DISTRICT ...	407,462	115,745	291,717	294,064	80,352	213,712	28.4	71.6	27.3	72.7
Tulkarm Sub-district	46,328	4,827	41,501	34,972	3,350	31,622	10.4	89.6	9.6	90.4
Nablus Sub-district	68,706	17,189	51,517	56,695	15,947	40,748	25.0	75.0	28.1	71.9
Jenin Sub-district	41,411	2,706	38,705	33,534	2,637	30,897	6.5	93.5	7.8	92.2
Nazareth Sub-district	28,592	8,756	19,836	22,681	7,424	15,257	30.6	69.4	32.7	67.3
Beisan Sub-district	15,123	3,101	12,022	10,679	1,941	8,738	20.5	79.5	18.2	81.8
Tiberias Sub-district	26,975	8,601	18,374	20,721	6,950	13,771	31.9	68.1	33.5	66.5
Haifa Sub-district	95,472	53,227	42,245	56,457	26,922	29,535	55.7	44.3	47.7	52.3
Acre Sub-district	45,142	7,897	37,245	35,535	6,420	29,115	17.5	82.5	18.1	81.9
Safad Sub-district	39,713	9,441	30,272	22,790	8,761	14,029	23.8	76.2	38.4	61.6

SUBSIDIARY TABLE No. V (b).

Towns classified by population.

CLASS OF TOWN	Proportion per cent. to total urban population	Number of females per 1,000 males	Increase per cent. in towns classified according to their population at census 1922 Decrease (—)
			1922 — 1931
1	2	3	4
	100.00	966	46.52
I. 100,000 & over ...	...	...	...
II. 50,000—100,000 ...	49.78	917	208.05
III. 20,000— 50,000 ...	11.90	1,055	—36.27
IV. 10,000— 20,000 ...	18.96	991	46.86
V. 5,000— 10,000 ...	12.33	1,019	—15.85
VI. Under 5,000 ...	7.03	1,017	20.19

CHAPTER III.—BIRTHPLACE, PERMANENT PLACE OF RESIDENCE, CITIZENSHIP, "NATIONALITY" WITHIN CITIZENSHIP.

BIRTHPLACE

41. The statistics of birthplace are important from various points of view. If returns are made as to birthplace within the country, the resulting statistics show the extent to which people have moved from one part of the country to another and thus help to explain the variations in the total population of each local area. Palestine, however, is so small a country that it was thought that the value of the results would not be commensurate with the labour of preparing statistics of birthplaces within the boundaries: there was, moreover, the overriding consideration of economy which forbade detailed tabulations without which a proper examination of internal migration is not possible. Consequently, the returns and the resultant statistics are founded on a classification of birthplace defined as Palestine or some other country, and yield no information as to internal movement from place to place in Palestine. Introductory remarks.

Another value attached to returns of birthplace is that they make it possible to ascertain the proportions of the sexes in the natural population, that is, among persons born in a given area irrespective of the place of enumeration, which is often very different from that in the actual population, that is, the population present in the area at the date of the census. For instance, the natural population of Palestine at the date of the census consisted of persons in Palestine and persons outside Palestine born in Palestine. It was therefore the actual population of Palestine, less the immigrant population, that is the total of persons born in some other country, plus the emigrant population, that is the total of persons born in Palestine but outside Palestine at the time. The census being a *de facto* census establishes the total of the actual population and the total of the immigrant population: it does not establish the total of the emigrant population born in Palestine. The usual method of ascertaining the third term of the right hand side of the equation giving the natural population is to make use of the reciprocal rights and obligations on signatories to the International Statistical Convention, Berne, 1895. Under that convention the signatory states may call each upon the other to furnish the latest information, based on census or other statistics, as to the several groups of nationals in which the states have interest. This provision, useful as it was thirty years ago, is now becoming useless as an authority for obtaining reliable information. Rapid communications have enabled people to move about much more freely than was possible, so that, for a proportion of emigrant populations, the latest information is nearly always out of date at the time at which it is made available. Another method, perhaps a little less unreliable in these days, is to provide that, at the census, there shall be taken from persons resident in the country details as to the members of their families who were born in the country but are living abroad at the time of the census. The resulting statistics furnish, at any rate, a fairly good estimate of that part of the natural population living abroad. This method was adopted at the census taken in 1922 but was not repeated in 1931. It will be seen in subsequent paragraphs that, notwithstanding the absence of inquiry into those matters, an attempt has been made to determine the size of the total natural population of Palestine as it was in November, 1931.

The third value of statistics of birthplace lies in the fact that they enable allowance to be made for the effect of migration on the age-distributions of the various areas, including the country as a whole, though it must be admitted that, in the absence of a table correlating age and birthplace, the adjustment is necessarily a rough one. Since statistics have not been prepared in regard to birthplaces in Palestine, it is not possible to show the effects of migration on the age distribution of the local areas; but it will be seen in the chapter dealing with age, that the immigrant population has had a most emphatic effect on the age

distribution of the Jewish community and hence on that of the age distribution of the whole population.

Lastly, provided that statistics of birthplace within the country are available, by showing the direction and volume of the movements between different parts of the country, they throw light on the effect of modern industrial developments and on general economic conditions. An attempt to elicit this information in another way is discussed in a later section of this chapter (Permanent place of residence), but, so far as statistics of birthplace are concerned, no light can be thrown on the relation between internal migration and economic characters and developments.

The effect of migration on the growth of the population has been discussed in the last chapter: and its influence on age distribution will be discussed in Chapter V (Age), and the present chapter is, therefore, confined to an examination of the main stream of migration to and from the country as a whole with a few references to nomadic migration of a special character within Palestine which will be more fully discussed in Chapter XII (Nomads).

Types of migration.

42. Migration is of various kinds and may be described in the following classes¹ :—

- (i) *Casual*. These are minor movements between neighbouring villages. These movements are called casual, not because they are temporary or accidental,—indeed, since marriage or the division of estates on death are the usual motives, they are often of permanent character—but because a change of residence from one place to another not far away does not appreciably affect the structure of the population within any of the administrative areas and does not, therefore, amount to migration in the ordinary acceptance of that term.
- (ii) *Temporary*. These migrations are usually concerned with the demand and supply of temporary labour in different localities, journeys on business, and pilgrimages such as those associated with religious festivals.
- (iii) *Seasonal*. These are connected in the settled population with seasonal demands for labour, such as occur in the period when oranges are picked. In the nomadic population, they are connected with the tradition of many centuries, and that tradition was no doubt founded on the economic necessities of winter and summer.
- (iv) *Semi-permanent*. These migrations are of those who retain homes in one place but earn their livelihood in another, maintaining connexion with their homes where they leave their families and to which they ultimately return. These features characterize the greater part of the Arab emigrant population seeking a livelihood in the American continent. To some extent, they are a feature of a very small Arab population who provide labour in Jewish villages, although migration of this type may, for most purposes, be included in migration of the casual type, seeing that, as a rule, the distance between the place of livelihood and the place of permanent home is small.
- (v) *Permanent*. This type of migration is in the nature of colonization. Within the country, for example, the discovery of a source of wealth and prosperity in the south would be followed by a permanent migration from the central and northern parts of Palestine. In this type is, of course, included immigration of settlers into Palestine from other countries.

It will be observed that census information as to birthplace can throw light on internal migrations only in so far as those migrations are in progress or have taken place in the lifetime of the present generation. Settlers' children born in any area form part of the natural population of that area, so that a subsequent

¹ I take these definitions from Part I of the Report of the Census of India 1911, Commissioner of Census, E. A. Gait, Esquire (now Sir. E. A. Gait, K.C.S.I., C.I.E.).—E.M.

declaration of birthplace of these children gives no information as to the localities from which their forbears came. The converse proposition is that while the surviving emigrants of that first generation from a district form part of the natural population of the district, the children of such emigrants born outside the district are lost to the natural population of the district from which their parents immigrated but form part of the natural population of the area within which the parents settled. So, for the country as a whole, children born in Palestine of immigrants into the country are a gain to the natural population of the country, of which the parents form no part; while the foreign-born children of emigrants from the country are part of the natural population of the country in which their parents have settled. These conceptions and definitions have no relations with conceptions of nationality and citizenship, although there is a tendency in certain forms of legislation dealing with citizenship to regard children of the third generation born abroad as not entitled, without special qualifications, to the obligations and privileges of the citizenship of the original emigrant forbears.

43. The absolute figures are given in Table XI in Volume II of the Report. At the end of this chapter will be found the following Subsidiary Tables :— Reference to the statistics.

Subsidiary Table I. — Birthplace — Proportion per 100,000.

Subsidiary Table II. — Number per 1,000 persons born outside Palestine.

44. In the settled population of 969,268 persons, 132,692 are immigrants having been born abroad. Thus, 14 per cent. of the population are foreign-born. The proportions in the communities are, of course, very different. Not quite 2 per cent. of the Moslem population are immigrants, while 58 per cent. of the Jewish population are foreign-born. Of the Christians, nearly 20 per cent. are from abroad. Thus the actual population of Moslems is very nearly equal to that part of the natural population of Moslems which is to be found in Palestine, while the Jewish population is dominantly immigrant in character. The immigrant population among the Christians includes members of His Majesty's Forces, and the proportion of immigrants in the Christian population is therefore inflated by a special immigration of artificial character. General.

45. The following table gives the proportion of the sexes in the immigrant population :— Sex proportion.

NUMBER OF FEMALE IMMIGRANTS PER 1,000 MALE IMMIGRANTS

Population	All Religions	Moslems	Jews	Christians	Others
Immigrant	889	684	941	763	(989)
Actual settled	973	968	982	991	...

The Moslem immigration is therefore tending to increase the marked disparity between the numbers of males and females in the Moslem population. The Jewish immigration is well-balanced in regard to the sexes. The Christian proportion is dominated by the immigration of a significant number of members of His Majesty's Forces either unmarried or living in Palestine apart from their families.

46. Subsidiary Table No. I shows the proportions of the population originating in Palestine and in continental groups of countries, while Subsidiary Table No. II shows the proportionate numbers of immigrants from these continental groups. For the Jewish population, these features are amplified in a table given in paragraph 55 below. Of the total immigrant population, 67 per cent. originate in European countries and 27 per cent. in Asiatic territories. It is clear that Palestine is still pursuing its ancient tradition by which it was regarded as a meeting place of migrations east to west and west to east, and as an *entrepôt* for material. The General provenance of immigrants.

development of the trans-desert projects connected with the delivery of oil from Iraq to the Mediterranean is likely to give greater impetus to these movements.

The proportions in the communities are, however, very different. In the immigrant Moslem population, 76 per cent. of the immigrants are from Asiatic territories and less than 1 per cent. from Europe. The Jewish immigrant population is derived 79 per cent. from Europe and 17 per cent. from Asia. In the Christian population, excluding members of His Majesty's Forces, the immigration is dominantly from Asiatic territories: including the effect of the garrison, the immigration from Europe is equal to the immigration from Asia. All these proportions, however, are misleading unless it be kept constantly in mind that, in the immigrant population of 132,692 persons, there are 101,415 Jews who, therefore, dominate the migratory movements into Palestine.

Of the Jewish population, 42 per cent. were born in Palestine, 20 per cent. were born in Poland, 16 per cent. were born in Russian territories: and about 10 per cent. were born in various Asiatic countries. Jewish immigration, therefore, is dominantly Polish and Russian in origin, and it may be inferred that, since mass migrations are the results of constriction of life caused by economic and other social forces, the Jewish movement into Palestine is the natural response to circumstances of pressure which is higher in Poland and Russia than in other countries of the world, where Jews find that economic and other social circumstances are not unfavourable to their development¹.

Variation
between 1922
and 1931.

47. The following table gives the actual and relative changes in the immigrant population in the period 1922-1931.

ACTUAL AND RELATIVE CHANGES IN IMMIGRANT POPULATION IN PERIOD 1922-1931

Year	Persons born in foreign countries				Palestinian citizens born in foreign countries				Foreigners born abroad			
	Number enumerated	Increase (+) Decrease (-) per cent.	Per 1,000 of total population	Number of females per 1,000 males	Number enumerated	Increase (+) Decrease (-) per cent.	Per 1,000 of total population	Number of females per 1,000 males	Number enumerated	Increase (+) Decrease (-) per cent.	Per 1,000 of total population	Number of females per 1,000 males
1	2	3	4	5	6	7	8	9	10	11	12	13
1931 ...	132,692	+302	128	889	...	...	...	...	...	...	...	...
1922 ...	*33,038	...	38	556	...	...	...	...	...	...	...	...

*This figure is a constructed population and does not emerge directly from the census of 1922 at which no particulars relating to birthplace were recorded.

NOTE:—

- (i) The proportion in the total population is calculated on the total populations of 1922 and 1931, it being assumed that the nomadic population was born in Palestine.
- (ii) Since citizenship and birthplace have not been tabulated in association it is not possible to complete columns 6-13 of the table.

It will be realized that a proportion of the immigrant population is born abroad of Palestinian parents, but there is very good ground for supposing that the number of such births is small so that there is a virtual identity between the total population born abroad and the foreign population born abroad. Without the resources of mechanical tabulation it was not possible to tabulate birthplace by citizenship so that the variation table is necessarily incomplete but is inserted here so that the form of tabulation may be preserved for future censuses. It will be realized that the heading "Foreigners born abroad" is equivalent to persons who were not of Palestinian citizenship at the time of their birth in foreign countries. Many of these are now Palestinian citizens but are, of course, none the less immigrants.

The statistics
of the
communities.

48. Among the Moslems, 12,506 persons were born in countries other than Palestine. Of these, 8,564 or 70 per cent. were born in Sinai (only 2 persons), Trans-Jordan and Syria, and the number from Syria is almost twice the number from

¹ This is an aspect of the negative conception of the Jewish National Home. I am not concerned here with aspects of the positive and creative conceptions of the Jewish National Home. The social philosopher will not need to be reminded that the obverse and the reverse of a coin are aspects of one identity.—E.M.

Trans-Jordan. Of the Moslems, 2,316 were born in Egypt. It may be taken that there is no movement of significance from Egypt to Palestine. Most of those born in Egypt came to Palestine in the service of His Majesty's Forces during the war and settled in the country either as small farmers (this is particularly the case at Beisan where their experience of controlled irrigation has been of value), or as domestic servants. The remainder of the Moslem immigrant population is very small, being just over one thousand from Asiatic territories not mentioned earlier, and not quite 400 from African territories principally Morocco and Algeria. It is of interest that some of the Moroccans settled in Palestine use a North African dialect, *Shalha*, as a medium of speech among themselves. *Shalha* is also used by some Moroccan Jews established in Palestine. In neither instance, however, was *Shalha* returned as a usual language.

(a) The Moslems.

Of the Christians, 3,821 persons were born in Syria (3,011) and Trans-Jordan (810). It is possible that a proportion of these were settled in Palestine prior to the war or shortly afterwards. The European immigrants are weighted heavily by the members of His Majesty's Forces, and by the British members of the public service. The number of those born in Turkey (3,544) is interesting. Most of these persons are probably Armenians who have settled in Palestine since the war.

(b) The Christians.

Of the Jews, 73,195 were born in Palestine and 101,415 in other countries. Of the population born in foreign countries, 79 per cent. representing 80,347 persons, were born in European countries. Of those born in European countries, nearly 45 per cent. were born in Poland: 34 per cent. were born in Russia: and only, 0.5 per cent. were born in the United Kingdom.

(c) The Jews.

Of the Asiatic territories, the Yemen and Iraq contribute 9,113 persons; Persia 2,840 persons, Turkey 2,238, and Central Asiatic Territories 604.

COMPARISON OF THE CENSUS STATISTICS WITH THE ANNUAL RECORDS OF MIGRATION.

49. It is only to be expected, in the circumstances of Palestine, that the records of migration should be defective. On the one hand, there is an intense pressure among Jews to enter Palestine; and, on the other hand, the country is landlocked in three directions and the frontiers are therefore difficult to control. An additional complication is caused by the present system of classification under which incoming persons are exclusively classified as immigrants, returning residents, and travellers; while outgoing persons are similarly exclusively classified as emigrants, residents leaving temporarily, and travellers. It will be clear that classification of this type is open to error. For instance some travellers inward become immigrants, that is, settlers in Palestine; some returning residents may also be immigrants in the sense that, having been absent for many years, they may have returned to Palestine to settle permanently. Among the departures, persons who are said to have the intention to return, may very well be emigrants, that is, persons who intend to settle abroad, at any rate, for some time; while some of those stated to be emigrants may be those who have settled abroad and have entered the country either as returning residents or as visitors. But, apart from this faulty manifold, there need be no surprise at defects in the aggregate records of migration and the closure of the results. The following extract from the General Report of the Census of England and Wales 1921 shows that, even in an island country, there are considerable discrepancies between the census statistics and the migration records:—

General.

“Some difficulty arises, in estimating the expected survivors in 1921, in the distribution of migrants over the intercensal years and by groups of age. The records obtained from time to time from the Board of Trade indicate a civil outward migration balance of approximately 870,000 for the decennium as compared with 590,000 . . . deduced from the actual intercensal increase after allowance for births and deaths, the difference possibly being accounted for by an inward

“ balance of migration from other countries of the United Kingdom
 “ (no records of which are obtained) and possibly by some imperfection
 “ in the returns of the war years ”.

Again, the Commonwealth Statistician, in an appendix to the Report of the Census of Australia 1911, observes :—

“ Notwithstanding that elaborate care was taken as regards the record
 “ of emigration, it has been found in Australia that errors occur therein
 “ of considerable magnitude. From the 1901 Census and the intercensal
 “ records up to the Census of 1911, it appeared that if the discrepancy
 “ were attributed wholly to this source of error, it would amount in the
 “ case of males to 0.1459 of the whole recorded male migrants outward
 “ (departures), and in the case of the females to 0.0995 of the whole re-
 “ corded female migrants outward. A still more extraordinary result
 “ was that apparently the island continent of Australia was rapidly
 “ losing females ”.

Palestine has none of the advantages of the island kingdom or the island continent : the unknown but not necessarily illegal migration across the land frontiers is comparable to the unrecorded migration into England and Wales from Scotland and Northern Ireland. Australia has every advantage, and it was possible, by changing the form of the records of inter-State migration, to remove one of the remarkable defects in its migration records. Palestine, on the other hand, has a classification of migrants which is, at any rate, likely to give faulty results.

The closure at 1931.

50. Nevertheless, although the census of 1922 gave no closure of results at that time, nor the number of foreign-born immigrants, it is possible, by making assumptions similar to those used in Chapter II (Movement of population), to give approximations to the facts of migration during the period 1922–1931. The Director of Immigration has prepared a record¹ of arrivals and departures which, in aggregate, is given below :—

000's omitted.

Arrivals			Departures			Differences		
Total persons	Settlers inward	Others	Total persons	Settlers outward	Others	Total persons	Settlers inward	Others
809	96	713	741	39	702	68	57	11 (inward)

On the other hand, he states that 11,000 persons were registered as immigrants during the period who had entered the country as travellers and who had remained in the country illegally until their position had been regularized. Most of these persons, he thinks, have been registered twice ; first as travellers and again as immigrants.

The revised record is therefore :—

000's omitted.

Arrivals			Departures			Differences		
Total persons	Settlers inward	Others	Total persons	Settlers outward	Others	Total persons	Settlers inward	Others
798	96	702	741	39	702	57	57	...

¹ See Subsidiary Table No. V at the end of this chapter.—E.M.

It should be noted that, since the Department maintain records on exclusive definitions, the accounts of arrivals and departures are built up by additions, so that the correction made must be a deduction from the total of travellers, since the 11,000 persons were registered as immigrants and therefore entered above under the heading of settlers. The next step is to make a difference table for the censal populations of 1922 and 1931 similar to that made in Chapter II (Movement of population) so that allowances are made for births and deaths, for members of His Majesty's Forces and for the persons transferred from Syria in 1923 who are not entered in the migration records. It will be found that the balance of arrivals over departures is 70,000 and that the inward records are deficient by 20,000 persons of whom probably 9,000 are Jews and 11,000 are non-Jews; and that the outward records are deficient by about 7,000 persons, all Jews. An infinite number of adjusted records of migration are possible, but three limiting adjustments are :—

000's omitted.

	First adjustment	Second adjustment	Third adjustment
Arrivals :			
Total persons	818	818	818
Settlers inward	116	96	116
Other persons	702	722	702
Departures :			
Total persons	748	748	748
Settlers outward	46	39	39
Other persons	702	709	709
Differences :			
Total persons	70	70	70
Settlers inward	70	57	77
Other persons ... ..	...	13 (inward)	- 7 (outward)

Any other adjustments are possible, provided that the aggregates of arrivals and departures are 818,000 and 748,000 persons respectively. The third adjustment given above is more probable than either of the others and leads to the following corrected distribution¹ of migrant settlers :—

000's omitted.

Settlers inward (presumed foreign-born)			Settlers outward (both foreign and native born)			Differences		
Persons	Jews	Non-Jews	Persons	Jews	Non-Jews	Persons	Jews	Non-Jews
116	96	20	39	26	13	77	70	7

¹ The uncorrected record is :—

000's omitted.

Settlers inward (presumed foreign-born)			Settlers outward (both foreign and native born)			Differences		
Persons	Jews	Non-Jews	Persons	Jews	Non-Jews	Persons	Jews	Non-Jews
96	87	9	39	26	13	57	61	- 4

The corrected record, when associated with the statistics of birthplace, leads to a generally approximate distribution of native-born emigrants. If allowance be made for deaths of foreign-born immigrants up to the date of the census 1931, there were not fewer than 20,000 native-born emigrants, of whom about 12,000 were native-born non-Jews and 8,000 were native-born Jews. The following table shows the scheme upon which this result is founded :—

000's omitted.

	Persons	Non-Jews	Jews
Foreign-born 1922 (excluding His Majesty's Forces)	33*	10	23
Foreign-born 1931 (excluding His Majesty's Forces)	130	29	101
Gains 1922-1931 (foreign-born)	97	19	78
Settlers inward 1922-1931 (assumed foreign-born)	116	20	96
Losses by death and emigration	19	1	18
Settlers outward (native-born and foreign born)	39	13	26
Minimum number of outward native-born settlers	20	12	8

* This figure is that assumed in Chapters I, II and VI in order to calculate the size of the natural population. There was no closure of migration records at the census 1922 so that the figure cannot be accurately determined.

The result is surprising but not incredible. On the other hand, it must be remembered that the division of 13,000 illegal entries into 9,000 illegal Jewish entries and 4,000 illegal non-Jewish entries is arbitrary, being founded on the assumption that, because 3,000 applications concerning about 9,000 Jews were received in respect of the regularization of their position in the country, there were 9,000 Jews who had evaded the records of immigration¹. It will be found, however, on experiment that other assumptions as to the distribution of these persons are less satisfactory. It is also possible that the allowance made for unregistered births is not sufficiently great; that allowance assumes a deficiency in the records of about 2,000 births per annum not only in the settled population but also in the nomadic population of Beersheba who do not live in the birth registration area. It may be that this allowance should be increased. If that were done, the number of illegal entries or illegal prolongations of visits would be considerably reduced and the resulting calculations would yield less surprising results. It is also possible that faulty classification of migrants generally is ultimately responsible for these surprising results, and that a classification of persons other than settlers, inward or outward, by birthplace or by citizenship would lead to results, as regards emigration, of more convincing character. In the present state of knowledge it is possible only to say that no great reliance may be placed on any statistical review of this aspect of the problem and that the general consistency of the results given above with other census information may be deceptive.

Adjusting
defects in
migration
records.

51. There are two methods in common use for adjusting migration records, provided that each census is designed to give a closure to the results of the intercensal period. By the first method, a co-efficient is determined which leads to propor-

¹ See reconciliation table in Chapter II (Movement of population).—E.M.

tional linear adjustment of the annual records. The second method leads to simple linear adjustment and under it the defect is distributed equally over the years of the period considered. In the circumstances of Palestine, with a violently fluctuating migration between 1922 and 1931, the first method is preferable. It is not possible, however, to determine the co-efficient exactly since the census of 1922 does not reveal the state of fact of migration at that time. The comparison between the total population of 1922 and 1931, however, leads to the conclusion that the balance of inward migrants is 70,000 as against 57,000 shown by the migration records. The implication is that the annual balance of migration recorded between 1922 and 1931 should be increased in the ratio 1.23 : 1. The records are certainly more defective prior to 1925 than during the later period, and at the present time the co-efficient of proportional adjustment may be about 1.1. That is to say, a more probable account of annual migration is given by increasing the balance between the inward and outward migrations by one tenth.

PERMANENT PLACE OF RESIDENCE.

52. The last section was concerned with migration to and from Palestine, and it is now necessary to examine the internal migration within the country. General.

It has already been explained that no declaration of the place of birth within Palestine was sought. It was believed that, Palestine being so small a country, the eventual returns would be heavily weighted by migration of the semi-permanent type, that is from one village to another by reason of marriage, distribution of estates and the like. It was further believed that, in view of the known attachment of the Arab population for the homes of their childhood, a declaration of the permanent place of residence would yield significant information as to migration of economic character. Thus it was thought that a man born in a village but enumerated in a town where he finds or seeks his livelihood, would be likely to return his village as his permanent place of residence. The instruction to enumerators was :—

- “ Enter ‘ Here ’ for those persons who permanently reside in this house.
- “ For those who have permanent residence elsewhere enter the name of
- “ the village or town, if in Palestine, or of the country, if not in Palestine.
- “ For those who have no settled place of abode enter ‘ None ’.”

The statistics are given in Table XII, Volume II of this Report, and the following Subsidiary Tables will be found at the end of this chapter :—

Subsidiary Table III. — Internal migration between districts.

Subsidiary Table IV. — Permanent residence and internal migration.

53. Having regard to the intention behind the *quaesitum*, the results can only be regarded as satisfactory in the sense that they show that the census was taken at a time when there was little movement in the country. Hence it can be stated of the population permanently resident in Palestine that, on census day, there was almost complete identity between the *de facto* and the *de jure* populations. It is not possible to infer from this satisfactory aspect of the returns that there is no significant movement of economic character. It may be that persons actually arranged to be enumerated at their permanent places of residence : it may be that the belief in the attachment of persons for their one-time homes was ill-founded. It must be admitted that the conception “ permanent place of residence ” is far from precise. Some British officers in the public service returned the United Kingdom as the answer to the census query : others returned Palestine as their permanent place of residence. In these cases it is clear that the conception varied between the idea of a permanent home and the idea of a permanent tie with the

country of birth or adoption. There is here involved the legal metaphysic underlying the various ideas associated with domicile. It is not improbable, therefore, that there was considerable confusion in the minds of the persons enumerated as to the intention of the census question. The statistics may be valid: but there is no ground for asserting their validity or their invalidity since their reliability is confined to defining the smallness of the magnitude of the movement of the population at the time of the census, and this apparently happy result may have been due to a deliberate and perfectly proper choice on the part of the persons enumerated to be returned in the census record at their permanent places of residence. No useful purpose, therefore, will be served by an analysis of the statistics. It is clear that, at the next census, it will be necessary to consider taking declarations from the population as to places of birth within Palestine. If that be done, it will not be impossible to make allowance for most causes of migration of the semi-permanent type and to analyse the balance of the returns.

CITIZENSHIP.

Introductory. 54. The instructions to enumerators as to the record of citizenship were:—

- (i) If the person was born in Palestine and was a Turkish subject until 1925 and has not by his own act become the citizen of another State enter 'Palestinian'.
- (ii) If the person was born in Palestine but was not a Turkish subject in 1925 enter present citizenship, *e.g.* 'Palestinian', or 'French', or 'German', etc., etc.
- (iii) If the person was not born in Palestine enter present citizenship, *e.g.* 'Palestinian', or 'British', or 'Polish', or 'Transjordanian', or 'Syrian', or 'Egyptian', etc., etc.
- (iv) If any person has applied to be made a Palestinian citizen but has not yet been granted citizenship enter 'Papers'.
- (v) If any person has no citizenship enter 'None'.
- (vi) Enter the same citizenship for the wife as for the husband.
- (vii) Enter the same citizenship for children under eighteen years of age as for the father unless they possess different citizenship.
- (viii) In all cases where any person claims to be Arab or Jew or Turk or Armenian or Greek, etc., enter this description after citizenship *e.g.* 'Palestinian Greek', or 'German Jew', or 'Palestinian Arab', etc."

These instructions were, of course, founded on the Palestine Citizenship Order, 1925, which establishes the new national status rendered necessary by the post-war adjustments of territory and sovereignty. They were necessarily somewhat complicated; but, since persons of foreign citizenship are usually acquainted with the facts of their national status, the return should, on *a priori* grounds, be substantially accurate if the return be truthful¹. It is perhaps questionable how many of the persons who returned themselves as Turkish subjects, are, in strict law, Turkish subjects. If they were habitually resident in Palestine in 1924 or 1925 then they are Palestinian citizens, and not Turkish subjects unless they declared an option for Turkish nationality and removed residence from Palestine. If they are immigrants from post-war Turkey, it is probable that they are Turkish subjects until they have acquired another nationality by naturalization. In general, however, the number of foreign citizens is more probably understated than overstated.

¹ On the other hand, I anticipated some difficulty on the ground of interpretation of the instructions and on a possible unwillingness of some persons to declare their citizenship. On the whole, a record of birthplace is less compromising in the life history of a person than that of his citizenship. Political refugees are necessarily reluctant to record citizenship as are those who may have committed offences whether extraditable or not.—
E.M.

55. The absolute statistics will be found in Table XIII (A) in Volume II of this Report. Foreign nationals have been tabulated by age and sex for all the administrative divisions of Palestine: the figures are not published with the report save in summary, but copies of the details have been supplied to interested foreign consuls. An attempt has also been made to show the influence of foreign nationals in organized industry. The absolute statistics will be found in Table XXI in Volume II, and references to this aspect of industry are made in Chapter XI (Occupation and Industry). Unfortunately, it was not possible, in restricted time, to tabulate by hand-sorting birthplace and citizenship together, and the statistics are therefore deficient in the value and interest derived from a study of the relation between country of birth and national status. Neither is it possible on the form of the census question to show directly the movement towards acquiring Palestinian citizenship by naturalization, although, later, will be found a measure of this movement derived by indirect methods. It may be assumed that, as a general rule, the comparable distributions by birthplace and citizenship are very similar in general respects. Citizenship tends to follow that of the country in which birth takes place, and, for most people, to state the one is to state the other. The special policy in Palestine, however, might conceivably lead to an exception to the general rule, and it is worth while to examine the distributions of the population on the two bases. If birthplace and citizenship had been tabulated together, the comparison, would of course, be more valuable since then it could be confined to the foreign-born population only: but the following table concerning the Jews¹ is not uninteresting.

The statistics.

THE JEWISH POPULATION BY COUNTRY OF BIRTH AND BY CITIZENSHIP.

(Only the most important countries named)

Section (a)

COUNTRY	Absolute distribution by					
	Country of birth			Country of citizenship		
	Persons	Males	Females	Persons	Males	Females
TOTAL ...	174,610	88,100	86,510	174,610	88,100	86,510
PALESTINE ...	73,195	35,851	37,344	100,704	51,490	49,214
Papers ...	...	...	...	7,902	3,936	3,966
Asia:						
Iraq ...	4,028	1,993	2,035	873	454	419
Persia ...	2,840	1,459	1,381	2,370	1,201	1,169
Syria ...	1,663	771	892	347	183	164
Turkey ...	2,238	1,117	1,121	1,557	790	767
Yemen ...	5,035	2,626	2,459	1,771	894	877
Others ...	1,421	690	731	545	265	280
Europe:						
Bulgaria ...	1,268	622	646	552	276	276
Czechoslovakia ...	493	305	188	1,090	567	523
France ...	254	120	134	3,986	1,952	2,034
Germany... ..	1,181	562	619	1,010	515	495
Greece ...	1,233	653	580	1,033	523	510
Latvia ...	1,230	665	615	553	284	269
Lithuania ...	3,861	1,934	1,927	2,128	1,052	1,076
Poland ...	35,776	19,122	16,654	23,107	11,629	11,478
Rumania... ..	5,011	2,588	2,423	2,629	1,327	1,302
Spain ...	33	19	14	1,306	661	645
United Kingdom ...	404	184	220	2,062	952	1,110
U.S.S.R. ...	27,354	13,884	13,470	8,771	4,138	4,633
Others ...	2,199	1,089	1,110	2,192	1,104	1,088
America:						
United States of America ...	672	315	357	2,222	991	1,231
Others ...	159	71	88	140	77	63
Africa:						
Morocco ...	1,283	556	727	3	1	2
Others ...	1,134	563	571	319	159	160
Other countries ...	146	68	78	55	23	32
Not recorded ...	399	273	126	5,383	2,656	2,727

¹ The number of foreigners among the Moslems is relatively very small. The foreigners among the Christians, at any rate from Europe, are on the whole in the service of the local and foreign states or are inmates of religious houses and form an exceptional group.—E.M.

THE JEWISH POPULATION BY COUNTRY OF BIRTH AND BY CITIZENSHIP.

Section (b)

COUNTRY	Proportionate distribution per 100,000 by						Number of females per 1,000 males	
	Country of birth			Citizenship			Country of birth	Citizenship
	Persons	Males	Females	Persons	Males	Females		
1	2	3	4	5	6	7	8	9
TOTAL	100,000	100,000	100,000	100,000	100,000	100,000	982	982
PALESTINE	41,919	40,694	43,167	57,674	58,445	56,888	1,042	956
Papers ... ..	...	...	...	4,526	4,468	4,585	...	1,008
Asia:								
Iraq	2,307	2,262	2,352	500	515	484	1,021	923
Persia	1,626	1,656	1,597	1,357	1,363	1,351	947	973
Syria	952	875	1,031	199	208	189	1,157	896
Turkey	1,282	1,268	1,296	892	897	887	1,004	971
Yemen	2,912	2,981	2,843	1,014	1,015	1,014	936	981
Others	814	783	845	312	301	324	1,060	1,057
Europe:								
Bulgaria	726	706	747	316	313	319	1,039	1,000
Czechoslovakia	282	346	217	624	643	605	617	922
France	146	136	155	2,283	2,216	2,351	1,117	1,042
Germany	676	638	715	573	585	572	1,102	961
Greece	706	741	670	592	594	589	888	976
Latvia	733	755	711	317	323	311	925	947
Lithuania	2,211	2,195	2,227	1,219	1,194	1,244	996	1,023
Poland	20,489	21,705	19,251	13,233	13,200	13,268	871	987
Rumania	2,870	2,938	2,801	1,506	1,506	1,505	936	981
Spain	19	22	16	743	750	746	737	976
United Kingdom	231	209	255	1,181	1,080	1,233	1,196	1,166
U.S.S.R.	15,666	15,759	15,571	5,023	4,697	5,355	970	1,120
Others	1,260	1,236	1,283	1,255	1,253	1,258	1,019	986
America:								
United States of America	385	358	413	1,273	1,125	1,423	1,133	1,242
Others	91	80	101	80	87	73	1,240	819
Africa:								
Morocco	735	631	840	2	1	2	1,308	2,000
Others	649	639	660	182	180	185	1,014	1,006
Other countries	84	77	90	31	26	37	1,147	1,391
Not recorded	229	310	146	3,083	3,105	3,152	462	1,027

In general, it will be seen that the comparable distributions are similar, but notable exceptions appear for the Yemen, for Poland and for Russia. In respect of these countries there is a considerable excess of native-born over citizens. In the cases of Czechoslovakia, France, Spain, United Kingdom, United States of America there is an excess of nationals over native-born but of no great amount, and it may be presumed that by far the greater part of the excesses of native-born over nationals in respect of Yemen, Poland and Russia have either become Palestinian citizens or have applied for naturalization, there having been 7,902 outstanding applications for Palestinian papers at the date of the census. It does not, of course, necessarily follow that all these people have or will become Palestinian: some may have changed their original citizenship for some other that is not Palestinian, and the excesses of nationals over native-born in the countries named may reflect a tendency to acquire a European citizenship, although the number of successes must be small seeing that the grant of naturalization by European states is dependent on stringent qualifications as to residence and other factors.

The smallness of the number of successes implies that the change of national status is towards Palestinian citizenship, the excesses of numbers of the native-born of foreign states over the numbers of the nationals of those states being compensated uniquely by the excess in the number of Palestinian citizens (Jews) over the number of the native-born Jews in Palestine. It would appear, therefore, that at the date of the census there were 27,509 Jews enumerated who had claimed to have been naturalized as Palestinian citizens and 7,902 who had applied for naturalization as such. On the other hand, there were 5,383 Jews who either did not record their citizenship or who had none. This last figure compares with 399, the number of Jews who did not declare their country of birth¹. The general conclusion is that, provided that the statistics of the grant of Palestinian citizenship by naturalization are maintained in respect of countries of original citizenship, there is no great advantage in including at future censuses a question as to citizenship. The information given as to birthplace is more accurate, and the distribution by country of birth is similar in most respects to that by country of citizenship; where the distributions are not similar, the assumption may be made that the change in citizenship has been towards Palestinian citizenship by naturalization, and these changes may be adequately measured by the records of the grant of Palestinian citizenship by naturalization maintained by the responsible department of government.

56. Nearly 92 per cent. of the population is of Palestinian citizenship. The proportions in the communities are very different. Of the Moslems not quite 1 per cent. are of foreign citizenship: of the Christians 14 per cent. are foreigners: while of the Jews 38 per cent. are foreign nationals, if those who have applied to be naturalized as Palestinians are included as Palestinian citizens. The Moslem foreign population is therefore small, about half of it having the citizenship of the neighbouring states. The Christian foreign population consists mainly of persons, with their dependants, engaged in the public service, in the consular services of foreign states and in religious and charitable institutions. The Jewish foreign population (66,004, if those who have applied for naturalization are not counted as foreigners) is not quite 6.5 per cent. of the total population, but, being 38 per cent. of the Jewish population, requires analysis. Only 1 per cent. of the Jews are British subjects; 2.2 per cent. are French citizens and rather more than 0.5 per cent. are Germans. Polish nationals form 13.2 per cent. of the Jewish population while 4.7 per cent. are of Russian citizenship. Rather more than 1.25 per cent. are citizens of the United States of America. Nearly 1.4 per cent. are Persians, and just over 1 per cent. claim to be Yemenites: while 3 per cent. either have no citizenship or have not recorded it. The comparison between distribution by birthplace and distribution by citizenship shows that immigration into Palestine is mainly governed by movements from Poland and Russia but that the proportion of Polish Jews retaining or claiming to be of Polish citizenship is greatly higher than the proportion of Russian Jews retaining or claiming to be of Russian citizenship. In England and Wales, the census of 1921 showed a tendency in the opposite direction, since a greater number of persons recorded Russian nationality than had been born in Russia, while a greater number of persons recorded Poland as their birthplace than claimed to be of Polish nationality. It is difficult to say whether the differences in respect of Poland and Russia in Palestine and the different experiences of England and Wales in 1921 and of Palestine in 1931 represent any significant phenomenon. It is possible that many who returned themselves as Polish citizens have been denationalized by that state without their being aware of the fact. Furthermore, the changes in Russia during the past decade have been so great that the comparison between the English experience of 1921 and the Palestine experience of 1931 may be invalid.

Structure of
the population
by citizenship.

¹ These figures may confirm the view stated in the footnote to paragraph 54 above to the effect that there is a greater reluctance to declare citizenship than to declare birthplace. The figures are not conclusive because a number of Jews have no citizenship, having been denationalized involuntarily and not having acquired another status by naturalization.—E.M.

Generally, a personal decision whether or not to apply to be naturalized will be governed by a judgment of the balance of advantages and disadvantages consequent on a change of national status. This judgment will vary with the conditions from time to time in the two countries related to the judgment, so that it is improbable that there should be, in the present circumstances of Europe, any proportionate constancy in decadal statistics of change of national status.

Records of
naturalization
in the
Department of
Immigration.

57. The records of the grant of citizenship by naturalization have been maintained since 1925 but in incomplete form until the 1st of January, 1929. The following table shows the number of certificates granted during the three years ending the 31st of December, 1931, distributed according to the country of the nationality surrendered prior to the grant of Palestinian citizenship.

NUMBER OF CITIZENSHIP AND NATURALIZATION CERTIFICATES GRANTED UNDER ARTICLES 5, 7, AND 9(2) OF THE PALESTINIAN CITIZENSHIP ORDER 1925.

PERIOD 1st JANUARY 1929 — 31st DECEMBER 1931.

Country of citizenship held previous to grant of Palestinian citizenship.	Certificates granted	Number per 1,000
TOTAL NUMBER	8,174	1,000
Asia:		
Iraq	75	9
Persia	130	16
Syria (with Lebanon)	39	5
Turkey	204	25
Yemen ... ..	...	...
Others	1	...
Europe:		
Bulgaria	104	13
Czecho-Slovakia	19	2
France	14	1
Germany	35	4
Greece	50	6
Latvia	121	15
Lithuania	383	47
Poland	2,796	342
Rumania	461	56
Spain	40	5
United Kingdom	13	2
U.S.S.R.	2,989	366
Others	239	29
America:		
United States	36	4
Others	10	1
Africa:		
Morocco	13	2
Others	70	9
Other countries ... ..	...	...
Not known	332	41

It is highly probable that the period of three years is not completely typical of the history of naturalization in Palestine since the operations began. The differences in this distribution and that of Section (b) of the table given in paragraph 55 above are, except in the case of Russia, not remarkable, and it may be that a proportion of persons born in Russia have either concealed Russian citizenship at the census by returning themselves as having applied for Palestinian citizenship, or by not recording their citizenship, or by returning their nationality as other than Russian. Since, however, the three years during which these statistics were recorded may be not typical years, it is impossible to have certainty on the point.

The essential feature is that there is sufficient accuracy in the statistics to give a reliable picture of citizenship when correlated with birthplace. The Director of Immigration has no complete knowledge of the total number of persons naturalized since the details are incomplete prior to 1929, but he considers that the total number is about 38,000, from which must be deducted a considerable number who left the country prior to the census and the number of those whose certificates have been revoked. Generally then, the number of those in Palestine who have acquired Palestinian citizenship by naturalization inferred indirectly from the census results (27,509) cannot be far from the truth.

58. The summary statistics of foreign nationals by age and sex are given in Table XIV in Volume II. Detailed statements are not printed in the Report but have been sent to the consuls of the foreign states interested. It was not possible to correlate foreign nationals by occupation or conjugal condition so that the statistics throw little light on the general sociological and economic characters of the population. But since three-quarters of that population consists of Jews and most of the chapters in this Report contain analysis of the features of the Jewish community, there is little value, even if it had been practicable, in analysing the characters of so small and so heterogeneous a population of 20,000 persons comprising the remainder of the foreign nationals. As was to be expected, the number of females is notably less than the number of males and the numbers of males returned between the ages of 20 and 45 years exceeds the numbers returned at all other ages, this being a typical feature of immigration preponderantly male in character.

Foreign
nationals by
age.

“ NATIONALITY ” WITHIN CITIZENSHIP.

59. In the current and legal usage of the English language, “ nationality ” is usually held to be identical with the national status of a person in the sense that he may be a subject or a citizen of a state. Thus British subjects are of British nationality and French citizens are nationals of France. This conception of “ nationality ” is not, however, generally part of the political philosophy of European states whose populations are composed of mixed races or other political entities. Political development in the island kingdom of England, Wales and Scotland has been of such character that no Englishman, Welshman or Scotsman finds any difficulty in describing himself as of British nationality, and this phenomenon is also true of all but a very small portion of the British Commonwealth. If that development, however, had followed different lines parallel to those followed in some of the European states, it is conceivable that the word “ nationality ” would have, in current usage in English, an idea of discreteness rather than of political unity. In such an event, it is conceivable that British subjects would comprise persons of English, Scottish or Welsh “ nationalities ”, together with such other “ nationalities ” as might have developed with the Commonwealth. This conception of nationality, while unfamiliar in English usage, is no new idea. It probably originates in the persistence of groups, political or religious, in the midst of crumbling empires ; and it has certainly dominated the political adjustments and the internal arrangements of countries in the Middle East since the fall of the Byzantine Empire. In recent times it was behind certain of the post-war adjustments in Europe, and is definitely connected with the problem of the protection of minorities.

General
introduction.

60. Where such notions are current, it has been usual to regard certain matters as within the competence of the “ nationality ” : thus, in the pre-war Ottoman Empire, matters of personal status and often of education were regarded as part of the internal affairs of a “ nationality ” which in that Empire coincided with a non-Moslem religious community. Religious division might or might not be co-terminous with a division by race or racial affinity. Thus Orthodox Christians, for example, constituted a “ nationality ”, but the conception of race was

nebulous except in so far as Orthodox Christians might be part of the direct descendants of generations in the Byzantine Empire, although in that case many Moslems and non-Moslems might also claim such descent. The Armenians also constituted a "nationality": in this case the religious division would correspond closely with racial division. The division, however, was clearly established on a basis of religion and accorded with the principle of religious liberty established at the time of the Moslem conquest, in virtue of which non-Moslem religious communities enjoyed autonomy in their internal affairs within the limits prescribed by Imperial decree. A decree recognising a non-Moslem religious community provided for the appointment and recognition of the head of the community and the jurisdiction of the courts of the community, and also for the constitution of ecclesiastical and lay councils. It was through these councils that the community controlled its internal affairs without the intervention of the sovereign power. Two matters of importance in these arrangements call for comment. First, these discrete entities possessing autonomy in internal affairs in virtue of a principle of religious freedom would, if they were large enough, naturally and in fact did, acquire a political character best described by the word "nationality". Secondly, there was a differentiation in treatment between the Moslem and the non-Moslem communities arising from the fact that the Moslem religion was the established religion in the sense that the Ottoman Empire was a church state and that Islam was not a state church¹. In virtue of the facts that the Sultan combined in himself the religious powers of Islam and the secular powers of the state and that legislation promulgated by him therefore did not lose its religious character, the internal affairs of the Moslem community were controlled by the ordinary machinery of Government. Consequently the Moslems of the Ottoman Empire did not constitute a "nationality" in the sense in which that word applied to certain non-Moslem religious communities.

Without discussing the difficult and troublesome question concerned with jurisdiction and the various laws of personal status to be applied, it is sufficient to say that the changes in Palestine following post-war arrangements, including the constitution provided by the Palestine Order-in-Council, 1922, are caused by the fact that sovereign power no longer resides in a single Moslem authority with spiritual and secular capacities.

61. Non-Moslem religious communities recognized by the Government continue to enjoy autonomy in respect of their internal affairs subject to certain constitutional limitations, but the change in character of the sovereign power, in virtue of which Islam is no longer the established religion in the sense in which that term might be used in the Ottoman Empire, has led to the crystallization, as it were, of a Moslem community also enjoying autonomy in its own internal affairs. The position then is that the non-Moslem religious communities, including the Jews, who enjoyed autonomy in their internal affairs under the Ottoman Empire, continue to enjoy that freedom in post-war Palestine; and that the Moslem community has been provided with a similar freedom made necessary by a change in the character of the sovereign government. Here are to be found the materials for "nationalities".

62. In addition, however, to the development of this complex of religious communities, a political development has taken place, and the Jewish Community existing as legal entity, and created historically under a principle of religious freedom, has now a specifically political character. The following quotation descriptive of the community is extracted from Command Paper No. 1700 of the 1st of July, 1922:—

" . . . The Jewish community in Palestine has its own political organs :
" an elected assembly for the direction of its domestic concerns ;

¹ This observation is not my own but I have been unable to trace the author. I believe it was first made by the late Marquess Curzon of Kedleston.—E.M.

“elected councils in the towns: and an organization for the control of its schools. It has its elected Chief Rabbinate and Rabbinical Council for the direction of its religious affairs. The business is conducted in Hebrew as a vernacular language, and a Hebrew Press serves its needs. It has its distinctive intellectual life and displays considerable economic activity. This community, then, with its town and country population, its political, religious and social organizations, its own language, its own customs, its own life, has, in fact, ‘national’ characteristics.”

In fact, the Jewish Community is a “nationality”. The consciousness of the existence of this “nationality” has led the non-Jewish religious communities to a vague conception of an Arab “nationality”. This Arab “nationality” has no legal existence since there is no Arab community in any formal sense. Its basis is perhaps best described as an awareness, on the part of members of some of the non-Jewish religious communities, of the possibility of common factors in the aims of the several communities¹. This awareness found its expression in a request during the preparations for the census from the Arab Census Committee that persons enumerated at the census should be given the opportunity of declaring an Arab “nationality”. The Government, having considered the request, directed that opportunity should be given in the census to all persons to declare a “nationality” if they so desired. The declaration of “nationality” on this basis means no more than that a person is an Arab or a Jew according to his own proclamation of the fact. It has no bearing on the legal status of any community for there is no formal Arab community: neither do the results show the magnitude of any community, for the number of Jews composing the legal Jewish Community is smaller than the number of persons in Palestine proclaiming themselves to be Jews, some of whom have taken the necessary steps to opt out of that community. In so far, however, as political importance can be attached to absolute magnitudes, the results give the numbers of those who claim to be of the Arab and the Jewish “nationalities”, all other declarations of “nationality” being thrown together under a general classification with no distinctions.

63. The absolute statistics are given in Table XIII (B) in Volume II of this Report, and a Subsidiary Table will be found at the end of this chapter. Including the nomads, who are definitely Arabs, the proportions of the communities are 81 per cent. Arab and 17 per cent. Jewish. **The statistics.**

¹ Since this was written a change has occurred which suggests that this common awareness is variable.—F.M.

SUBSIDIARY TABLE No. 1.

Birthplace.

1	TOTAL PERSONS			MOSLEMS			JEWS			CHRISTIANS			OTHERS		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
TOTAL POPULATION	969,268	491,258	478,010	693,159	352,172	340,987	174,610	88,100	86,510	91,398	45,896	45,502	10,101	5,090	5,011
Born in Palestine	836,576	420,999	415,577	680,653	344,747	335,906	73,195	35,851	37,344	73,564	35,782	37,782	9,164	4,619	4,545
Born elsewhere	132,692	70,259	62,433	12,506	7,425	5,081	101,415	52,249	49,166	17,834	10,114	7,720	937	471	466
Adjacent Asiatic Territories	14,349	7,337	7,012	8,364	4,531	3,833	1,668	775	893	3,821	1,810	2,011	496	221	275
Mediterranean Islands	328	188	140	15	7	8	99	52	47	213	128	85	1	1	...
Certain African Territories	4,149	2,645	1,504	2,319	1,657	662	964	483	481	856	500	356	10	5	5
Other Asiatic Territories	20,862	10,705	10,157	1,069	703	366	15,607	7,881	7,726	4,098	2,069	2,029	88	52	36
Other African Territories	2,002	1,062	940	494	395	99	1,453	636	817	55	31	24	...	...	...
European Territories	88,572	47,074	41,498	88	48	40	80,347	41,747	38,600	7,807	5,092	2,715	330	187	143
America	1,854	881	973	92	39	53	831	386	445	920	452	468	11	4	7
Australia	81	34	47	1	1	...	38	11	27	42	22	20	...	...	...
At sea	11	6	5	1	...	1	9	5	4	1	1	...	...	...	...
Not recorded	484	327	157	63	44	19	399	273	126	21	9	12	1	1	...

Proportion per 100,000

TOTAL POPULATION	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Born in Palestine	86,310	85,698	86,939	98,196	97,892	98,510	41,919	40,694	43,167	80,488	77,963	83,034	90,724	90,747	90,700
Born elsewhere	13,690	14,302	13,061	1,804	2,108	1,490	58,081	59,306	56,833	19,512	22,037	16,966	9,276	9,253	9,300
Adjacent Asiatic Territories	1,480	1,495	1,467	1,207	1,287	1,125	955	880	1,033	4,181	3,944	4,420	4,910	4,341	5,488
Mediterranean Islands	34	38	29	2	2	2	57	59	54	233	279	187	10	20	...
Certain African Territories	428	538	315	335	470	194	552	548	556	937	1,089	782	99	98	100
Other Asiatic Territories	2,153	2,179	2,125	154	200	107	8,938	8,945	8,931	4,483	4,508	4,459	871	1,022	718
Other African Territories	207	216	197	71	112	29	832	722	944	60	67	53	...	...	...
European Territories	9,138	9,582	8,681	13	14	12	46,015	47,386	44,619	8,542	11,095	5,967	3,267	3,674	2,854
America	191	179	203	13	11	15	476	438	514	1,006	985	1,028	109	78	140
Australia	8	7	10	...	...	...	22	12	31	46	48	44	...	...	...
At sea	1	1	1	...	...	...	5	6	5	1	2	...	...	...	...
Not recorded	50	67	33	9	12	6	229	310	146	23	20	26	10	20	...

SUBSIDIARY TABLE No. II.

Number per 1,000 persons born outside Palestine.

PLACE OF BIRTH	TOTAL PERSONS			MOSLEMS			JEWS			CHRISTIANS			OTHERS		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Adjacent Asiatic Territories	108	104	112	669	610	754	17	15	18	214	178	260	529	469	590
Mediterranean Islands	2	3	2	1	1	2	1	1	1	12	13	11	1	2	...
Certain African Territories	31	38	24	185	223	130	10	9	10	48	50	46	11	11	11
Other Asiatic Territories	157	152	163	86	95	72	154	151	157	230	205	263	94	110	77
Other African Territories	15	15	15	40	53	20	14	12	17	3	3	3	...	...	...
European Territories	668	670	665	7	7	8	792	799	785	438	503	352	352	397	307
America	14	13	16	7	5	10	8	8	9	52	45	61	12	9	15
Australia	1	...	1	...	...	...	...	...	...	2	2	3	...	...	...
At sea ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not recorded	4	5	2	5	6	4	4	5	3	1	1	1	1	2	...

SUBSIDIARY TABLE No. III.

Internal migration between districts.

EMIGRANT DISTRICT	IMMIGRANT DISTRICT			
	Southern District	Jerusalem District	Northern District	Total
Southern District	1,056	577	1,633
Jerusalem District
Northern District	709	...	709
Total	1,765	577	2,342

SUBSIDIARY TABLE No. IV.

Permanent residence and migration.

DISTRICT	Population enumerated	Permanent residents enumerated	Permanent residents in other parts of Palestine and in countries abroad (2) — (3)	Permanent residents enumerated in other parts of Palestine	Distribution of permanent residents in Palestine by sub-districts	Number per 10,000 of persons enumerated	
						IMMIGRANTS into sub-districts	EMIGRANTS from sub-districts
1	2	3	4	5	6	7	8
SOUTHERN DISTRICT :							
Gaza	94,104	93,612	492	2,188	95,800	52	233
Beersheba	3,101	3,056	45	304	3,360	145	980
Jaffa	140,534	137,825	2,709	1,797	139,622	193	128
Ramle	66,793	64,816	1,977	542	65,358	296	81
JERUSALEM DISTRICT :							
Hebron	65,630	65,187	443	1,189	66,376	67	181
Bethlehem	16,781	16,357	424	178	16,535	253	106
Jerusalem	132,661	128,206	4,455	1,363	129,569	336	103
Jericho	3,356	2,721	635	35	2,756	1,892	104
Ramallah	39,062	37,209	1,853	289	37,498	474	74
NORTHERN DISTRICT :							
Tulkarm	46,328	45,670	658	447	46,117	142	96
Nablus	68,490	67,742	748	1,120	68,862	109	164
Jenin	41,411	40,865	546	369	41,234	132	89
Nazareth	28,592	27,887	705	563	28,450	247	197
Beisan	15,123	14,244	879	160	14,404	581	106
Tiberias	26,975	26,116	859	414	26,530	318	414
Haifa	95,472	92,788	2,684	1,139	93,927	281	119
Acre	45,142	44,293	849	217	44,510	188	48
Safad	39,713	39,017	666	312	39,359	168	79

SUBSIDIARY TABLE No. V.

Number of persons recorded as entering and leaving Palestine from October 1st 1922 to October 31st 1931.

PERIOD	A. ARRIVALS RECORDED			TOTAL ARRIVALS	B. DEPARTURES RECORDED			TOTAL DEPARTURES
	Persons registered as immigrants(*)	Returning residents	Travellers (including tourists & pilgrims)		Emigrants recorded	Residents recorded as leaving temporarily	Travellers (including tourists & pilgrims)	
October–December								
1922	2,047	?		2,047	708	?		708
1923	7,991	49,792		57,783	4,947	51,385		56,332
1924	13,553	70,613		84,166	2,500 (†)	67,381		69,881
1925	34,641	87,666		122,307	4,100	76,682		80,782
1926	13,910	22,802	52,301	89,013	9,429	24,695	50,376	84,500
1927	3,595	24,938	59,505	88,038	6,978	29,248	57,359	93,585
1928	3,086	28,188	63,319	94,593	3,122	32,348	60,452	95,922
1929	6,566	28,212	60,212	94,990	2,835	31,514	57,365	91,714
1930	6,433	30,617	58,832	95,882	3,003	32,127	56,450	91,580
January–October 1931	4,428	27,174	48,543	80,145	1,094	28,007	46,982	76,083
Total up to 31.10.31	96,250	712,714		808,964	38,716	702,371		741,087
November, 1931	653	2,269	3,047	5,969	80	1,835	2,808	4,723
December, 1931	452	2,174	3,174	5,800	172	1,884	3,000	5,056

Note *—Until the end of October, 1931, 11,335 persons who had been resident in the country without permission, were registered as immigrants. The greater part of them are believed to have entered Palestine as travellers. Of the persons who were given permission to apply for registration under the Order of the High Commissioner of the 14th of July, 1931, a small number only were registered and recorded in the statistics before the date of the census.

Note †—Estimate.

SUBSIDIARY TABLE No. VI.

The natural populations at the censuses 1922 and 1931.

YEAR	ACTUAL POPULATION			IMMIGRANT POPULATION			EMIGRANT POPULATION			NATURAL POPULATION		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1931	1,035,821	526,680	509,141	132,692	70,259	62,433	†37,815	29,118	8,687	940,944	485,539	455,405
1922	757,182	387,118	370,064	*33,038	21,238	11,800	21,206	13,469	7,737	745,350	379,349	366,001

†These figures for emigration are reached indirectly by study of records of emigration, thus :—

Emigrants 1922 ...	21,206	Total permanent departures 1922-1931 ...	38,716
Less 10% for deaths and returns to Palestine ...	2,121	Less 19,000 not born in Palestine ...	19,000
Survivors abroad ...	19,085	Balance ...	19,716
		Less 5% for deaths and returns to Palestine .	986
		Survivors from emigration 1922-1931 ...	18,730

Total emigrants abroad 37,815

The returns by sex show that the ratio of emigrant females to total emigrants is 0.230 giving 29,118 male emigrants and 8,697 female emigrants.

*These figures for immigrants as at census 1922 have been decided as the most probably correct in the circumstances of defective records. Three methods of calculation led to results lying between 31,000 and 35,000. No records are available to show the proportion of the sexes but there is ground for supposing that prior to 1922 the number of Jewish immigrant males was not quite 1.8 times the number of Jewish immigrant females. In any event the number is not large and the result is little affected by a change of proportion.

SUBSIDIARY TABLE No. VII.

*"Nationality" within citizenship.**A.—Number of persons including nomads within each "nationality."*

POPULATION	Persons	Arabs	Jews	Others
TOTAL (Settled and Nomadic)	1,035,821	839,619	174,809	21,393
Palestinian (Settled and Nomadic) including those who had applied for naturalization but had not been granted citizenship at the time	949,586	832,999	108,694	7,893

B.—Number in each "nationality" per 1,000 of population.

POPULATION	Persons	Arabs	Jews	Others
TOTAL (Settled and Nomadic)	1,000	810	169	21
Palestinian (Settled and Nomadic) including those who have applied for naturalization but had not been granted citizenship at the time	1,000	877	115	8

CHAPTER IV.—RELIGION.

THE IMPORTANCE OF PALESTINE IN THE WORLD OF RELIGION.

General.

64. It is impossible to include within the limits of a chapter of this Report even the barest outlines of the history of religion in Syria and Palestine ; and the most that may be attempted is to mark the supreme influence of Palestine in the world as a consequence of that history. The three great Semitic religions, Judaism, Christianity and Islam, to name them in the order of the history of their emergence, have played and continue to play incalculable parts in the activities of the whole world, these activities touching or embracing entirely every phase of life, individual or social. Judaism and Christianity are both indissolubly bound to Palestine, in the case of the latter in virtue of the history of its origin, and, in the case of the former, in virtue of its early development and maturation. Islam, in its syncretistic character, is bound to Palestine, or at least to Jerusalem, as being the venerated cradle of both Judaism and Christianity. These three confessions have acted, re-acted and inter-acted in a manner which, through Judaism and Christianity, links the world in historical and religious associations to a Palestine and a Syria as these countries were long before Judaism and Christianity had emerged as distinct creations ; and which, through Islam, renovated the life of Europe, making possible the utilization of learning that would otherwise have been lost to mankind, and making civilization the supreme end of living.

The Mystery Religions, found in the countries bordering the Eastern Mediterranean earlier than or co-existing with Judaism and Christianity, contributed to the world the notions of divine powers controlling the natural order and communion with the god which, combined with the drama of the seasons, led to ideas of resurrection of the individual and the hope of future life. Judaism, with its stern monotheism, refused all compromise with the polytheistic conceptions of the neighbouring peoples ; and the prophetic books, with their exhortations, rebukes and comminations, show how bitter was the struggle between the intellectualism and austere discipline of monotheism and the natural response of natural man, not especially primitive, to the incomprehensible workings of the world in which he lived. Christianity, with a subtle alchemy, blended the monotheism of the one with the satisfying ritual notions of the other, and sought to combine in one perfect whole the complete activity of individual man in his earthward and God-ward aspects. But, more than that, the fabric of both Judaism and Christianity is shot with the stuff of philosophies, which still remain, for many, the most valuable contributions of human thought and endeavour, and which still edify, refresh and support countless believers.

65. It is impossible, however, to interpret the resultant effects of the development of Judaism and Christianity on Europe merely in terms of formal religions and philosophies : behind both was to be found the deep current of more primitive heathen rituals and beliefs mingled with the sacrificial ideas which are found both in these beliefs and in some of the Hebrew rites set forth in the Old Testament¹. In trying to understand the early development of Christianity this under-current of primitive and eastern ideas must not be ignored.

¹ Dampier-Whetham, W. C. D. *The History of Science*, Cambridge University Press, 1929.

The passage into Europe of these underlying notions during the later days of Roman paganism, saturated the European peoples with alien ideals of life and gradually undermined the whole fabric of ancient civilization. The old conception of the subordination of the individual to the community, of the citizen to the state, in the interest of the safety of the commonwealth, was replaced by a new conception in which the individual and his future life were all important, the prosperity and the existence of the state being insignificant. The stimulating corrective was given by the European conquests of Moslem victors; and, under the aegis of Islam, learning was re-introduced into part of Europe by both Moslem and Jewish scholars, so that, at the close of the Middle Ages, the revival of Roman law, of ancient art and literature, of Aristotelian philosophy marked the return of people to older native ideals¹. Without entering the questions with what religion is *per se* concerned, the remarkable phenomenon is the influence that Palestine and Syria have thus had in the destiny of the world, this influence being not confined to purely religious relationships, but extending over the whole social complex, and having material effects on the individual and on society. The religions towards which monotheistic and orthodox Judaism was in opposition and from which, in the alembic of Judaism, the essence of Christianity was distilled, have altered the social structure of the whole world; but this might not have happened had not a new impetus been given to Europe under the influence of Islam.

66. During the two centuries following the death of Muhammad, there was intense theological activity in Islam. Greek philosophy modified the orthodox view, and the Moslem mind was stimulated, in small part perhaps, by Buddhist natural philosophy, but principally by the philosophies of certain of the Greek thinkers. On a parallel line there developed curiosity as to those entities in nature to which theologians denied permanence or reality. Islamic science developed while Christian science advanced towards decay, so that, at the end of the eighth century, the primacy in science was the glorious possession of the Near East. Persian and Greek thought were assimilated either through the intermediary of Syriacs or through direct translations of original works into Arabic. In the eleventh century Arabic became the language of learning and, indeed, the written word in Arabic carried with it the authority that had formerly been accorded to the word in Greek. In Spain, the farthest province of Moslem conquest, the momentum of Islam had effects of the most admirable kind. Here became apparent the best results of the intercourse of Arabian (*i.e.* Islamic), Jewish and Christian civilizations. The Sephardic Jews, originally expelled from Palestine to Spain under the Roman Emperor Titus, had preserved traditions of Alexandrian learning and had maintained communication with the East. The Moslem conquest of Spain at the beginning of the eighth century was characterized by humane and enlightened tolerance of thought so long as their supremacy was unchallenged and, as a result of this tri-partite intercourse, a stream of knowledge was poured into Europe, the sources being largely Arab and Jewish scholars. Christianity, utilizing the new learning, again sought to establish fundamental harmony between man and the conditions of his life. It gave the world a model of efficient executive organization, and maintained or created the forms of democratic government within itself, which are still found to be, in most countries, the least imperfect within which to preserve effectiveness, authority, and that expression of diversity that is the only mark of social equality.

This brief summary may serve to explain in some measure how Palestine comes to be of significant interest to the whole world. It is not only a centre in itself: it is the focus of many interests each one of which in itself is world-wide in character.

The services
of Islam.

¹ This view is substantially that of Sir J. G. Frazer, *The Golden Bough*, 3rd ed., Part V, *Spirits of the Corn and Wild*, Vol. II.—Quoted from Dampier-Whetham, W. C. D., *loc. cit.*

THE STATISTICS.

Introductory. 67. The absolute statistics of religion in Palestine will be found in Table VII in Volume II of this Report. The following Subsidiary Tables will be found at the end of this chapter :—

- I. — General distribution of the population by religion.
- II. — Proportional strength of the main religions in each district and sub-district in 1922 and 1931.
- III. — Proportionate distribution of religions of urban and rural populations.
- IV. — Distribution of Christians by locality.
- V. — Christian population by churches.
- VI. — Distribution of Christians per mille—
 - (a) Citizenship by church ; and
 - (b) Churches by citizenship.
- VII. — Comparative distribution of Christian Churches 1922 and 1931 and variation in strength 1922–1931.

The instructions to enumerators were :—

Enter each person's religion as he declares it, together with the sect where sect exists, *e.g.* ' Moslem, Shi'a ' ; ' Christian, Roman Catholic ' ; ' Jew ' ; ' Samaritan ' ; ' Druze ' ; etc., etc.

If any person declares that he has no religion, is an agnostic, is an atheist, enter ' No confession ', or ' agnostic ', or ' atheist '.

For Moslems who are not Shi'as it is unnecessary to enter the word ' Sunni '.

Save in respect of the Christian Churches, there was no difficulty in interpreting the census returns. Some Moslems, indeed, interpreted ' sect ' as meaning one or other of the four rites or schools of Moslem jurisprudence within orthodox Islam¹, but the intention was to ascertain the numbers of the unorthodox Shi'a community. The returns of Christian Churches, however, proved troublesome in classification and tabulation², and suggestions will be made in the Administrative Report of the census operations for making this task simpler in the future. Some idea of the difficulties involved will be gained from the fact that the original returns yielded over two hundred apparently different forms of churches which, when analysed, were brought within the framework of ten main denominational groups with sub-groups, and one miscellaneous group comprising a large number of sub-groups. It can be presumed with confidence that this classification is substantially correct, the numbers of the persons about whose church there is still some doubt being very small³.

The general features of the religious distribution.

68. The following table shows the distribution by main religious confessions of the population of Palestine in 1931 and 1922 together with the variation in each religious confession during the intercensal period :—

Religious confession	Number per cent. in		Increase per cent. 1922–1931
	1931	1922	
Moslems	73.34	78.04	28.6
Jews	16.86	11.07	108.4
Christians	8.82	9.64	25.2
Other confessions	0.98	1.25	0.7

¹ See later section concerning Moslems.—E.M.

² I am greatly indebted for the help I received in resolving the various difficulties from the Revd. Archdeacon W. H. Stewart and Canon C. T. Bridgeman of St. George's Anglican Cathedral, and, by the courtesy of His Beatitude the Latin Patriarch, from the Revd. C. D. Fay of the Latin Patriarchate.—E.M.

³ The prefaces to the various parts of Table VII, Volume II, suffice to show the cases in which doubt may still be expressed.—E.M.

The changes in the proportions of
the population in
the main religious confessions.

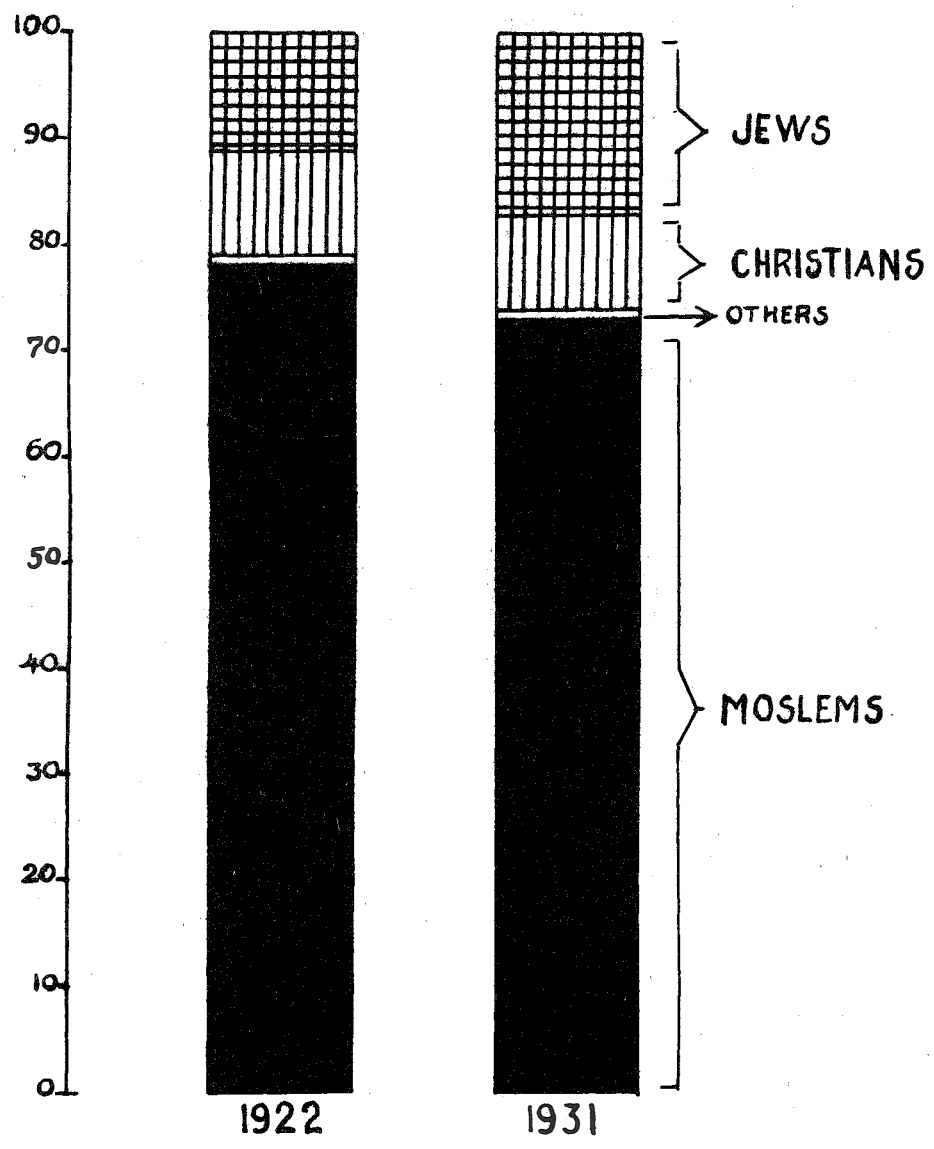


DIAGRAM No. 10.

**PROPORTIONS OF THE RELIGIOUS CONFESSIONS IN PALESTINE
AND THE DISTRICTS**

1SQ. CM. REPRESENTS 20,000 PERSONS

THE BASE OF EACH RECTANGLE IS PROPORTIONAL
TO THE TOTAL POPULATION OF THE COUNTRY OR DISTRICT

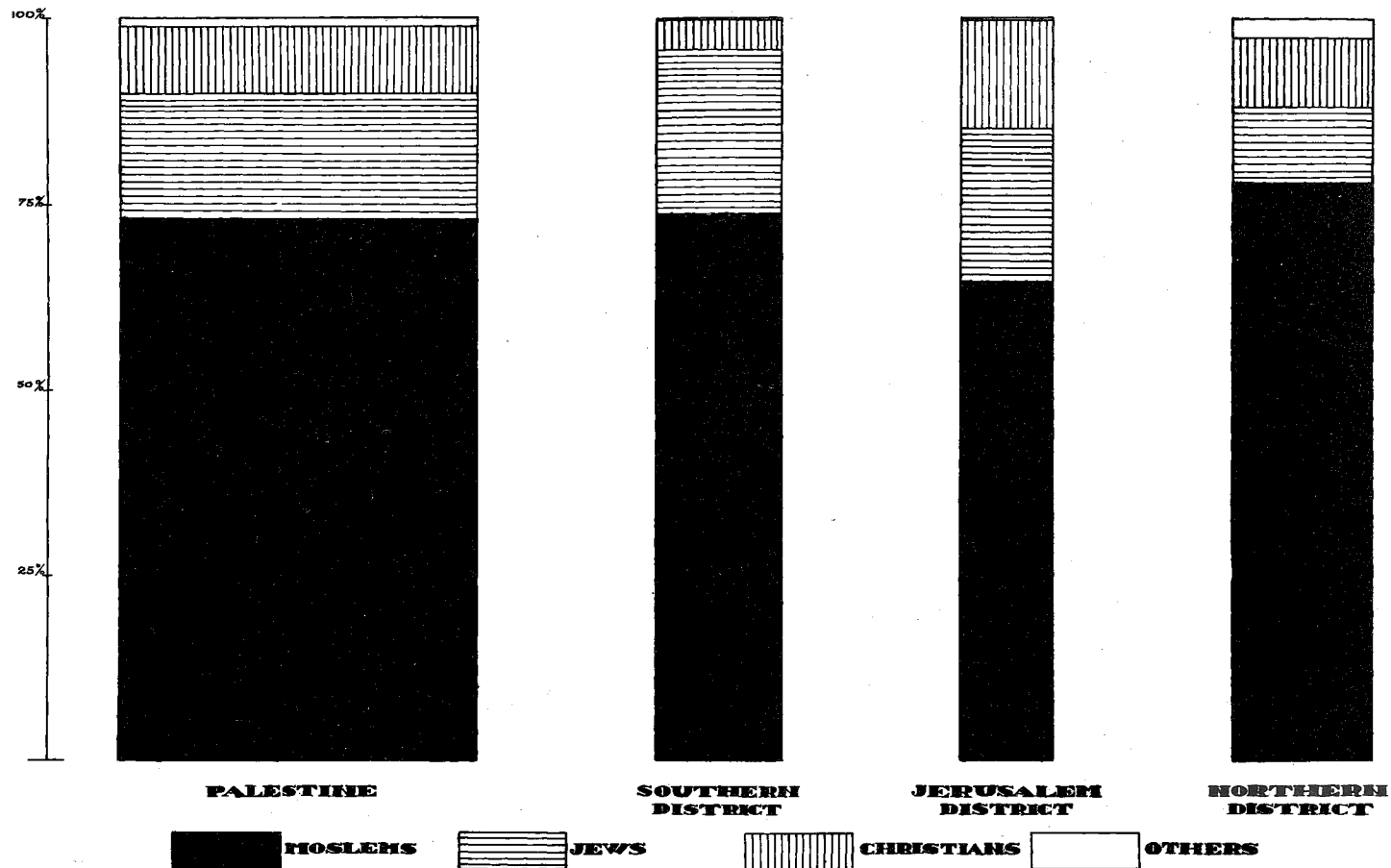


DIAGRAM No. 11.

As was to be expected, the increase in the Jewish community during the years 1922–1931 has augmented the proportion of Jews in the total population in such degree that the proportions of all other religious communities have diminished. The change in the proportional distribution as in 1922 and in 1931 is illustrated in Diagram No. 10. The distribution in the districts, given in detail in Subsidiary Tables I and II, shows larger variations according to the weight of Jewish immigration into the various localities. The present distribution is illustrated in Diagram No. 11, where the widths of the rectangles are proportional to the total populations of the several districts. The area of each rectangle is, therefore, representative of the total population of the district, and, the heights of the partial rectangles being representative of the proportions of the population in the main religious confessions in the districts, each partial rectangle is representative of the absolute magnitude of the population of the religious confession to which it refers. The changes in distribution since 1922 are most marked in the Southern district where the Jewish proportion has increased from nearly 11 per cent. to nearly 22 per cent., that is, has been doubled.

THE MOSLEMS.

69. The Moslems number 759,712 persons of whom 4,100 are Shi'as. That is to say that the great majority of the Moslems of Palestine are orthodox—Sunni, so-called because they observe the *Sunnahs*, that is, precedents or traditions. Sunni Moslems have four great schools of law named after their four founders. These four schools are the Shafi, named after Muhammad ibn Idris al Shafi'i; the Hanbali, named after ibn Hanbal; the Hanafi, named after Abu Hanifa; and the Maliki, named after Malik. There is a fifth school, that of the Ibadites in Oman and at Mzab in the Sahara, which is the oldest of the schools, but which has the least influence, and is not represented in Palestine. It is stated¹ that these four schools are represented in Palestine in the following proportions:—

Shafi	..	..	70 per cent.
Hanbali	..	..	19 per cent.
Hanafi	..	..	10 per cent.
Maliki	..	..	1 per cent.

The census of 1931, however, elicited no information on this point. There is no material divergence in doctrine among the four schools, but, as between the schools, matters of ritual are important. The school of Abu Hanifa prevailed throughout the Turkish Empire; that of Malik in North Africa, omitting lower Egypt; that of ibn Hanbal survives in Central Arabia among the Wahhabis; while that of Al Shafi'i prevails generally in Egypt, the Middle East, southern India, and elsewhere. It is of particular interest that Al Shafi'i was born at Gaza (A.D. 767). He was of Quraish descent, and lived until manhood with the Bedu tribe of Beni Hadhail, from whom he acquired his pure classical Arabic. He had an adventurous and variegated life and had considerable success, both in Egypt and Baghdad, in the teaching of his particular doctrine. He founded what is known as the Eclectic School of jurisprudence, and attempted to fuse the historical school of Malik with the speculative and more philosophical teaching of Abu Hanifa.²

Moslems who are Shi'as are mostly found in Persia and Iraq. Those in Syria and Palestine are usually known as Matawilah (Friends of 'Ali). The history of the Shi'as is full of interest but is beyond the compass of this Report. Very briefly, the Shi'as may be described as the descendants of schism, partly political and partly religious in character. The edicts of the Moslem Conqueror

¹ *The Handbook of Palestine and Trans-Jordan* — H. C. Luke & E. Keith-Roach; 2nd edition; Macmillan & Co., 1930.

² Slane; *Ibn Khallikan*.—E.M.

Omar were severe, and it is probable that many of the vanquished in Persia, and elsewhere, gave ostensible allegiance to the new faith imposed on them, but secretly adhered to their traditional rites and doctrines. In the course of time, the mysticism of the Persian cults was grafted, as it were, on to the orthodoxy of Islam, yielding multitudinous Shi'a heterodoxies. As a result, Shi'as now hold that 'Ali, the fourth Khalif, and his successor *Imams* were infallible, supernatural beings embodying, to some extent, divine essence. On the purely religious side, the influences of Judaic and Christian messianic tendencies cannot be ignored in considering this Islamic heresy: but, on the other side, it does not appear that persons, holding these and other heterodoxies, of which there were many, were known as Shi'as, until arose the dynastic troubles of Arabia of the early years of the eighth century. Indeed, it is certain that in 'Ali's own days there was no trace of the extravagant claims as to his divinity advanced in later days in behalf of his posterity. It was only many years after the death of 'Ali that the "Party (Shi'a) of 'Ali", later known more simply as the "Shi'a", came into existence, and fostered, for political purposes, the fiction of the divine *Imam*. In fact, various heretical Islamic groups, holding incarnational theories, then combined as a party for political purposes: and, in furtherance of their objects, made use of the general reaction in the favour of the dynasty of 'Ali, who had died in A.D. 661; and, attaching to that Khalif their incarnational ideas, advocated the divine right of succession in the line of 'Ali. Thus it seems probable that the name "Shi'a" arose from a political complex rather than from the group of heterodoxies which formed the beliefs of large numbers of persons within the Moslem states of that time.

The Shi'a community in Palestine "traces its origin to a companion of the "Prophet 'Abu Dair Ghifari, who is supposed to have first taught his doctrines "in the villages of Sarafand and Meis in southern Syria"¹. It is probable, however, that the Matawilah of Syria and Palestine are descendants of immigrants from Persia and the Tigris-Euphrates valley, and, in this regard, it is worth remembering that they "still maintain contact with the shrine of Kerbela "in 'Iraq"². Their present number, 4,100 persons, is rather larger than had been anticipated. They are nearly all found in the sub-districts of Acre and Safad, and may have been part of the population transferred from Syria to Palestine at the time of the rectification of the northern boundary of Palestine (1922-3).

THE DRUZES³.

Introductory. 70. The Druzes come nearest in outlook and habit of life to the Moslems and particularly to the Shi'a elements.

Dr. P. K. Hitti begins his fascinating little study of the Druzes with the following sentence:—

"The Druzes of Syria and the Samaritans of Palestine are two unique communities not to be found elsewhere in the whole world. Like social fossils in an alien environment, these two peoples have survived for hundreds of years in that land rightly described as a 'Babel of tongues' and a 'museum of nationalities'."

¹ *Handbook of Palestine and Trans-Jordan* — H. C. Luke and E. Keith-Roach.

² *Handbook of Palestine and Trans-Jordan* — H. C. Luke and E. Keith-Roach. Kerbela contains the tomb of El Hussein, the second son of 'Ali. El Hussein was slain by Obeidallah who was reproached, perhaps not altogether sincerely, by Yezid, the Khalif at Damascus. The story of the tragedy is dramatic and has lost nothing in the Shi'a telling of it through the centuries.—E.M.

³ There is much uncertainty regarding the use of the form "Druses" or "Druzes". The former variant is supported largely by the European literature of the nineteenth century, and I employed it in the first publication of the results of the census (Population of Villages, Towns and Administrative Areas —1931). Since then I have had the advantage of reading Dr. Hitti's interesting essay, "*Origins of the Druze People and Religion*"—Columbia University, Oriental Studies; Vol. XXVIII, 1928; and, in the light of Dr. Hitti's researches, I am impelled now to adopt the second form. According to this authority (and to others), the Druzes, while detesting the name, derive it from Darazi, the founder of the religion. That opinion is not, however, conclusive; for it is possible that the art of dissimulation, which is a precept of the faith, may cause Druzes to publish this interpretation. My preference, therefore, is no more than a deference to the wishes of the people concerned.—E.M.

The Druzes in Palestine number 9,148 persons : but the total Druze population must be about 120,000 persons so that the Druze population in Palestine is only a small fraction of the polity identified as Druze in its "national" - religious aspect. Their origin is obscure. They themselves claim to be Arab in origin ; but the principle of dissimulation, adopted from Shi'a precepts on the basis of Koranic prescriptions, makes the Druze accounts of their origin unreliable. Many and fantastic are the suggestions of travellers throughout the centuries as to the origin of this strange people. The secrecy in which the Druze faith is shrouded, the accounts, real and fabled, of stages of initiation through a very definitely arranged hierarchy, accounts made additionally picturesque by rows of asterisks or obviously veiled allusions, have combined to stimulate the imagination of many of those who have written about the subject. Three facts emerge from a wealth of literature : the sect began its life in the Lebanon ; Darazi the founder of the sect was probably of Turco-Persian origin while Hamzan, his teacher, was certainly of Persian origin¹; and, on the measurements of the heads of fifty-nine adult male Druzes, Professor von Luschan, the distinguished anthropologist of the University of Berlin, was able to state that "not one single man fell, as regards his cephalic index, within the range of the real Arab". The learned professor makes an inference that the Druzes, Maronites, Nusayriyah of Syria, together with the Armenians, Tahtagis, Bektashis, Ali-Ilahis and Yezidis of Asia Minor and Persia, "with their enormous high and short heads and narrow and high noses" are the descendants of the ancient Hittites². Dr. Hitti, after analysing the religious vocabulary of the Druzes, the names of the feudal families, the evidence afforded by history of migrations from time to time of Persians westward through Iraq to Syria, and the ready acceptance, by a settlement in the Lebanon, of esoteric doctrines, strangely characteristic of a succession of Persian mysticisms, reaches the definite conclusion that the Druze people are a mixture of Persians, Iraqis and Persianized Arabs³.

71. The traditional religious ordinance of the Druze, inherited from Shi'a sects, prescribing the practice of dissimulation (*taqqiyah*) for the safety of believers, surrounded by hostile and persecutory elements, makes it impossible to rely substantially on the published accounts of the theology and rites of the Druze religion. According to their own teaching, the Druzes are now in a "period of concealment"⁴, and may divulge nothing about their faith. The fairly extensive literature about the subject reveals how this secrecy has excited the curiosity of travellers and observers ; and it is perhaps not unfair to add that the need for satisfying this curiosity has stimulated the imagination of some observers, so that many of the accounts of the religion are no more convincing than the accounts of the origin of the people who profess it. The reader of this literature finishes his task no better informed than he was when he began it ; and—such is the fascination of a secret—often no wiser. The secret, if there be one, has been well kept ; and if there be no secret, all that emerges from the analysis of that which may be learned from the few manuscripts and other sources of knowledge available, is a strange, incoherent blend of heterodoxies of Shi'a origin, Judaism, Christianity and some of the Gnostic Mysteries. The significance of this result is to be found not so much in the light it throws upon Druze religion and practice, but in the knowledge which it gives of certain Shi'a and of Gnostic doctrines, the original believers in which have long since disappeared, and which would have been completely lost, if they had not been brought down to present times by the Druzes themselves. That the people who became the first Druzes were adherents to a Shi'a sect is probably now not disputed. Muhammad Ibn Ismail el Darazi,

The Druze religion.

¹ Hitti ; loc. cit.

² Journal of the Royal Anthropological Institution (London, 1911) quoted from Hitti ; loc. cit.

³ Hitti ; loc. cit.

⁴ Hitti ; loc. cit.

probably a Turco-Persian, came to Egypt in 1017 and entered the court of the sixth Fatimate Khalif, Abu Ali el Hakim li-Amr-illah (996–1020), usually known as El Hakim. This Khalif had maintained his divinity in private, but Darazi took it upon himself to assert Hakim's divinity in public. While this act had the approval of the Khalif, it infuriated the inhabitants of Cairo, and Darazi was forced to flee the country. Under instructions from El Hakim, he fled to Wadi el Taim, separating the Lebanon from the mountain of Hermon, and here he proclaimed the divinity of his master in Egypt. The people to whom he preached, already belonging to one of the secret Shi'a sects, found no difficulty in accepting doctrines not greatly unlike those which they had professed to that time¹. In this, then, lies the origin of the religion which bears a name recalling that of its original founder. Darazi, however, seems to have had a genius for heresy: having introduced his doctrines and mysteries, some of them similar to those of the more licentious Gnostic rites, he sought to impose variations and innovations in the very teaching for which he had been responsible. This heresy was apparently regarded in a political light at Cairo, for Darazi was deposed by Hamzah, a Persian who succeeded Darazi as the Khalif's minister, and who had been Darazi's original teacher; and was replaced by Baha el Din. There is little doubt about the truth of these historical details which suffice to account for two sects within the Druze religion, the one sect holding the doctrine and tenets of Darazi, the other following Hamzah. So great was the influence of Hamzah that there appears to have been an apotheosis of him as well as of El Hakim.

Of the actual religion and its liturgies it is, as has already been said, impossible to write with confidence. To accept the divinity of 'Ali and his successor *Imams* is a characteristic of all Shi'a sects. Metempsychosis is said to be part of the faith, but in that respect the Druzes are but the successors of many of the sects of early Islam. It is idle to speculate whether such beliefs are original or are the result of influences from eastern Asia. A belief in a succession of divine incarnations seems to be the necessary concomitant of metempsychosis if the divine and the world are to be in ultimate relation, and it is not surprising, therefore, that a progressive series of divine manifestations is said to be a guiding principle of Druze theogony². In this regard, however, it must be remembered that incarnation, to the eastern mind, is a philosophy rather than a fact. The corollary of an incarnation is a disappearance and a final return associated with the triumph of the believers. Although there may be a series of incarnations, said to be ten in the case of the Druze religion, the Druzes appear to be strict monotheists. Among them there is, also, the "Inner Meaning", the characteristic of all secret sects, particularly a series of initiations through a system of degrees. It appears that both men and women are equally eligible for the final enlightenment³.

Of the relative sizes of the Darazi and the Hamzah sects today nothing appears to be known. That the Druzes appear to dislike their name seems to be well established, but how far that may be an effect of dissimulation (*taqqiyah*) remains a question. It is usually held that the Darazi practice contains licentious rites, and that the Hamzah ritual is austere. The nature of the case prevents precision of knowledge in these matters: but, if the assumption be valid, it may be credibly supposed that the Druzes of Palestine adhere to the Hamzah doctrines. The charge of licentiousness is lightly made in respect of many secret sects or societies: the process of thought seems to be that a secret society has something to conceal, and that there is nothing in any social order to conceal which is in harmony with the ethics of that order: it is then an easy step to the assumption that concealment implies something of which society would disapprove. In the end, this means no more than that secret societies are antisocial, and their penalty

¹ Mention has been made in paragraph 69 above of the general adherence of Shi'as to incarnational doctrines.—E.M.

² Hitti; loc. cit.

³ It is said that both husband and wife may have passed a series of degrees, and that it may happen that neither may know that the other has done so.—E.M.

is to suffer charges in which there may be no truth. While divorce is not difficult, all Druzes are monogamous as a result of Christian influences in the origin of their religion, and those of Palestine are distinguished by the morality of their conduct and their love of justice. As will be seen in Chapter VIII (Education), the standard of literacy among the Druzes, while low, is emphatically higher than among the Moslems, particularly in the case of females. Monogamy and a higher standard of literacy among females both imply that cultural influences among the Druzes are opposed to the drastic subjection of women characteristic of some of the eastern peoples.

72. In summary, it may be said that Druzes are probably Persian in racial origin ; that their religion is, at best, imperfectly apprehended ; but that study of that religion throws additional light on early Shi'a sectarian beliefs and on certain Gnostic rites.

The Druzes enumerated in Palestine at the census 1931 numbered 9,148 and have increased by over 2,000 persons since the census taken in 1922. Males and females are equal in number ; there is no doubt that they form a very fertile group. They are practically all tillers of the soil and their standard of life is perceptibly higher than that of the average Moslem peasants.

JUDAISM.

73. The extensive literature, from both Jewish and Christian sources, concerning the development of Judaism makes it unnecessary to attempt even the briefest historical sketch of a religion that has had profound effects of both a positive and negative kind on the development of the civilized world. It cannot be doubted that, if Judaism had been confined to Palestine, the development of the whole world would have followed a different and, perhaps, a barren course. The consequences to the world of its enrichment by a religious literature that regulates and edifies the lives of millions of non-Jews are incalculable. The accident or the determined purpose, that made the Hellenes a people endowed with speculative curiosity, led to an impact between Hellenic thought and Jewish ideas of which the reverberations still echo in the world. The further event in which Arabian and Jewish scholars combined, under a tolerant Moslem domination, to help to teach Europe the learning that it had forgotten, led to the conception of the essential dignity of life and hence of civilization. Once again, Judaism had an immeasurable influence in providing the source of the inspiration of those who formed the non-Roman western churches of Christianity. The text of the Old Testament, had for Protestants, something of the sanctity that the Talmud possessed for the Jews themselves. From the history of Judaism seems to emerge one great significance at least ; if Judaism had been confined within Palestine, the world would have been unfortunate and Jews might not have gained their proud heritage. As it is, Judaism, at the present day, must be counted among the motive forces of the world, not only because it asks of the world a continuous question, but also because it must be numbered among the positive and creative processes operating on civilized humanity, enabling the world to solve the problem which its very existence throughout the world has created. General.

74. During the years 1922-1931, the Jews increased from 83,794 persons to 174,610 persons and now form nearly 17 per cent. of the population of Palestine. Of the Jewish population enumerated, only 2 persons were returned as Karaites¹. Before the war, there were perhaps 80-100 Karaites in Palestine, but most of these departed to Cairo. Karaites are now mainly found in Russia.

¹ The Karaite sect was founded by Anan ben David in the middle of the eighth century. It represented a revolt against the authority of the Talmud and accepted the Bible as determining the mode of Jewish life. Undoubtedly the central authority was weak since each Karaite community interpreted the Scriptures as it pleased. The attachment of Protestants of the Reformation to the authority of the Scriptures led to their being described as *Karaei*.—E.M.

THE ORIGIN OF THE SAMARITANS AND THEIR TRIBAL DIVISION¹.

A note by Mr. I. Ben Zvi of Jerusalem.

Origin and history.

75. In accordance with biblical sources, the Samaritans are the descendants of the settlers transplanted by the Assyrian kings of Palestine to settle on the territories formerly occupied by the ten tribes who were exiled to Assyria². The settlers included people from Kuth or Kutah (Cuthah) after which name the Samaritans were called "Kuthim" in Jewish sources. The Samaritans regard this appellation as degrading to themselves; in Rabbinical literature, however, this is the usual one. The Bible further narrates that the King of Assyria settled in Samaria people from Babylon, Awa, Hamath and Sepharvaim. This event took place after 722 B.C. in which year Shomron was conquered.

According to the Sargon inscription, the number of those whom that king led into captivity was 27,000³. On the other hand, in accordance with biblical data, the number of (Israelitish) land owners alone (at the time of the Assyrian conquest) may be estimated at 60,000⁴. We may therefore conclude that the King of Assyria exiled only a small part of the Israelite population of the country, and that the majority remained behind in their lands and exercised some influence on the settlers, both racially and culturally.

In the present day the Samaritans are divided, according to their origin, into the following three large clans: the children of Ephraim, the children of Manasseh, and the Priests (Kohanim) and Levites. During the Fatimid period, prior to the Crusades, there were also Samaritans (at Gaza) who claimed descent from the tribe of Benjamin, but today none of these remains.

There is evidence for the intrusion of foreign elements into the community at Shomron also at a later period. The Asenapper (Ashurbanipal) list includes the names of Persian officials, and persons from Erekh, Babylon, Susa and Elam. This, of course, relates to a much later period than that of Sargon. But even those racial mixtures could not fundamentally change the Israelitish character of the Samaritan race, just as the mixture of Canaanite elements with Israelite tribes did not change the character of the Israelite-Judaeen race.

In the centuries that followed, there was added the Judaeo-Israelite element, which played a decisive part in the religious outlook of the Samaritans, inasmuch as it strengthened the monotheistic conception as against the pagan worship which the foreign races introduced into Shomron.

According to their origin the present Samaritans are distinguished as follows:—

The Danafite family (Hamulat al-Danaf) which claims descent from Ephraim son of Joseph.

The Mufarajiya (Marhib) and Sabahiya families which claim descent from Manasseh.

As for the priests—the Samaritan chronicle tells us that in 1033 (1624 A.D.) the priestly house descended from Aaron became extinct, and that since then their sacred functions devolved upon the Levites. It should be here noted that the person who styles himself the "High Priest" is really not a descendant of Aaron, but of Uzziel, son of Kohath, son of Levi.

¹ Professor Corrado Gini, the eminent Italian statistician, wrote to Dr. R. Katznelson, my assistant, and suggested that the opportunity given by the census for surveying the small Samaritan community should not be lost. I, therefore, arranged for a special sorting of the information concerning Samaritans and invited Mr. Ben Zvi of Jerusalem, who has made a special study of the Samaritans for many years, to contribute a note on the results. This he has done, and the chapter receives an additional interest for which both readers and myself are indebted. The note was written in Hebrew and Mr. Yellin, of the Department of Education, was so good as to translate it into English for the Report.—E.M.

² II Kings, 17, 5.—I.B.Z.

³ Annals 11-17, Schrader, Keilinschriftliche Bibliothek II, and Prunkinschrift 23-24.—I.B.Z.

⁴ II Kings, 15, 19, records that the tax paid amounted to 1000 Kikar=3,000,000 Shekel. Another source gives the tax per family head as 50 Shekel.—I.B.Z.

The last mention of the Samaritans as a national unit dates back to the Byzantine period, when in their revolts against the Byzantines during the 4th, 5th and 6th centuries A.D. they fought their own battles. However, there is a record of the existence of large Samaritan settlements in the 7th century too, when, for instance, at Caesarea and its neighbourhood there were, according to Jaqut, 80,000 Samaritans, or according to Beladhuri (on the authority of Al-Waqidi), 30,000.

Under the rule of the Moslems, the Samaritans gradually declined, and from a nation they became a mere sect. During the reign of Harun al Rashid there were thousands of Samaritan peasants, especially in the neighbourhood of Ramle, Lydda, Yabneh and Artuf. However, at the time of the Crusades, the number of the Samaritans had already diminished to such a degree that the Jewish traveller Benjamin of Tudela counted only about 1000 men or families at Shechem, which, according to other sources, possessed at that time about half the total Samaritan population of Palestine and Syria. At the end of the 13th century, the total number of Shechem's Samaritan inhabitants did not exceed 1000, whilst their number in other towns and villages also approximated 1000.

During the Mamluk period, the Samaritans formed part of the Jewish-Karaite community at whose head was a Jewish Exilarch who resided in Egypt. Rabbi 'Ovadia of Bartenora (1488 A.D.) states that, according to Samaritan sources of information, there were then in existence not more than 500 Samaritan families (=2,500 souls), of which 500 were in Egypt, and the rest in Damascus, Shechem, Gaza and other Palestinian localities.

At the beginning of the 17th century, Shechem again became the centre of the Samaritan community, whilst Gaza and Jaffa also had small settlements. The latter, however, were completely extinguished by the end of the 18th and the beginning of the 19th centuries. Only at Shechem a small Samaritan community continued to survive.

When Robinson visited Shechem in 1838 he found there approximately 150 Samaritan souls—of whom 30 were tax-paying male adults. During the last century only a few changes occurred. Some 18 years following the date of Robinson's visit Dr. A. Fraenkel also quotes, on the authority of the High Priest Salamah, 150 as representing the total Samaritan population of Shechem.

S.W.P. of the P.E.F., Volume II, page 219, mentions that in, the decade preceding the year 1882, the number of the Samaritans at Shechem increased from 135 to 160. Forty years later, the official census gives their number as 147 at Shechem and 16 in other towns, total 163. During 1882–1931, the following changes are noted:—

SAMARITAN POPULATION OF PALESTINE

Year	Source	Males	Females	Total
1901	... ..	97	55	152
1909	Professor Kahle	97	76	173
1922	Census	83	80	163
1931	Census	93	89	182

THE SAMARITAN POPULATION OF SHECHEM

Source	Year	Males	Females	Total
Census	1922	74	73	147
Census	1931	79	81	160

It will be seen that, during the last century, there has been only a slight increase in the total Samaritan population of Palestine (32 persons on 150 persons, *i.e.* 21 per cent.); but there has been a marked adjustment in the proportion

of the female element to the male. Forty years ago the percentage of the female element in the total Samaritan population was only 36.2 per cent., whilst at present it is 49 per cent.—which is a normal proportion.

**Differences
between
Samaritans
and Jews.**

There are two fundamental differences between the Samaritans and the Jews :—

- (a) The Samaritans acknowledge as the chosen place of worship not Jerusalem and Mount Moriah, but Mount Gerizim. In this respect they differ, not only from the Jews, but also from the Christians and Moslems, who uphold the sanctity of Jerusalem, and do not recognize the sanctity of Mount Gerizim. In general, the Samaritans believe that all the ancient prophecies and traditions regarding the “chosen place”, *e.g.* the sacrifice of Isaac and the prophecies of Moses, refer to Mount Gerizim.
- (b) The Samaritans do not acknowledge the prophets of Israel and refuse to recognize all the books of the Old Testament with the exception of the five Books of Moses. In this respect, too, they are at variance, not only with the Jews, but also with the Karaites (who acknowledge the Old Testament in its entirety) and the Christians. They also do not, of course, accept the oral tradition of the Jews, namely, the Talmud, instead of which they have a tradition of their own, which is different from that of both Jews and Karaites.

It should here be observed that, even in respect of the Torah itself, the Samaritan text presents numerous variants from the traditional Hebrew text. The principal difference lies in the insertion in the Samaritan text (following immediately upon the Ten Commandments) of a passage relating to the erection of the Altar on Mount Gerizim, a passage non-existent in the Hebrew text or the later Jewish and Christian versions of the Old Testament. There are also some minor textual variants which form the subject of scientific criticism, and whose number is approximately 6,000.

The Samaritan script, too, differs from the script employed by the Jews. It is of greater antiquity than the Hebrew square script, and in its form resembles the ancient Hebrew (Phoenician) script; there are, however, slight differences between the two.

Other matters in which difference between Samaritans and Jews exists may be traced to the fundamental difference referred to above. Thus, at the ceremony of circumcision and at the time of slaughtering of animals, the Samaritans contemplate the name of Mount Gerizim, and, at their prayers, also turn their faces not toward Jerusalem, but towards their sacred mount.

In the fixation of their calendar and holy festivals the Samaritans differ from the Jews in certain respects. Thus, they have other rules governing the intercalation of years, and these cause sometimes a difference of one month as between the date of the Jewish and Samaritan Passover and other feasts. Moreover, owing to differences in the mode of determining the appearance of the new moon, there is sometimes a difference of a day or two between the date of the Jewish and Samaritan feasts. The main difference, however, lies in fixing the day of Pentecost. According to the Samaritan interpretation of the Mosaic text, this feast must invariably fall on a Sunday; for they always begin counting the seven weeks on the morrow of the first Sabbath following the first day of Passover.

In religious practice, the Samaritans endeavour to adhere to the plain meaning of the ancient laws. They consequently are very strict in the observance of the laws relating to the keeping of the Sabbath; and not only do they abstain from kindling any fire on that day, but they also refrain on the Sabbath from deriving any use from light set even on the Sabbath eve, and from eating any hot food. These latter restrictions are not applicable in the case of the Jews.

The Samaritans take great care, even at present, in the observance of the levitical rules appertaining to cleanness and uncleanness, and are very strict about the prescribed treatment of women during their menstruation. To prevent

any communication between the women and the rest of the household, a stone screen is set up and special utensils are placed at their disposal.

On Passover eve (14th of Nissan), the Samaritans still sacrifice the Passover on Mount Gerizim, and they eat it, in haste, standing, with their loins girded and their shoes on their feet, as is written in the Torah.

It should, however, be observed, that, notwithstanding their efforts to limit themselves in religious matters to the written text of the Torah, the Samaritans have not been able to withstand the influence of various conceptions which have found their way into traditional Judaism as developed after the period of the Second Temple. The present Samaritans believe, just as the Jews do, in the coming of the Messiah (whom they call "Taheb" or "Shaheb"), in the rebuilding of the Temple, the Day of Judgment, divine reward and punishment, and the resurrection of the dead. Influenced by Christianity, Islam and Jewish Kabbala, they also believe in angels and evil spirits.

Their dogma is :—

" My faith is in Thee, Yahweh, and in Moses, son of Amram, Thy
" Servant ; and in the Holy Law ; and in Mount Gerizim, Beth-El ;
" and in the Day of Vengeance and Recompense."¹

I. B. Z.

76. The following tables illustrate the most interesting demographic features of the community :— Statistics of
Census 1931.

- (a) Age, sex and conjugal condition ;
- (b) Birthplace, citizenship, 'nationality' within citizenship, language ;
- (c) Literacy ;
- (d) Education by age and years at an educational institution ;
- (e) Occupation.

SAMARITANS.

(a) Age, sex and conjugal conditions.

Age	Persons					Males					Females				
	All conjugal conditions	Unmarried	Married	Divorced	Widowed	All conjugal conditions	Unmarried	Married	Divorced	Widowed	All conjugal conditions	Unmarried	Married	Divorced	Widowed
All ages	182	93	64	1	24	93	57	32	...	4	89	36	32	1	20
0	25	25	...	...	...	7	7	...	...	...	18	18	...	...	...
5	24	24	...	...	...	12	12	...	...	...	12	12	...	...	...
10	18	18	...	...	...	14	14	...	...	...	4	4	...	...	...
15	9	5	4	...	...	4	4	...	...	...	5	1	4	...	...
20	10	6	4	...	...	5	5	...	...	...	5	1	4	...	...
25	11	3	7	...	1	5	3	...	2	...	6	...	5	...	1
30	15	6	8	...	1	8	6	2	...	...	7	...	6	...	1
35	8	3	4	...	1	7	3	3	...	1	1	...	1	...	...
40	13	...	12	...	1	6	...	6	...	...	7	...	6	...	1
45	11	1	8	...	2	6	1	5	...	...	5	...	3	...	2
50	7	1	5	1	...	5	1	4	...	...	2	...	1	1	...
55	5	...	4	...	1	5	...	4	...	1	...	...	...	...	...
60	9	...	6	...	3	4	...	4	...	...	5	...	2	...	3
65	5	1	1	...	3	2	1	1	...	...	3	...	...	...	3
70	6	...	1	...	5	1	...	1	...	...	5	...	...	...	5
75	6	...	...	...	6	2	...	...	...	2	4	...	...	...	4

(b) Birthplace, Citizenship, 'Nationality' within citizenship, Language.

- 182 born in Palestine.
- 182 of Palestinian citizenship.
- 182 of Samaritan nationality.
- 182 using Arabic as habitual language.

(c) Literacy.

	Persons	Males	Females
Persons	182	93	89
Literate	63	54	9
Illiterate	119	39	80

¹ Samaritan epistle to Ludolf, end of 17th century.—I. B. Z.

(d) Education by age and years at an educational institution.

Years at school	Literate aged								Illiterate aged							
	0-7		7-14		14-21		21 and over		0-7		7-14		14-21		21 and over	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Total	...	1	5	4	4	...	45	4	13	19	13	9	2	7	11	45
0	1	...	13	19	12	9	2	7	11	45
1	...	1	1	...	2	...	9	...	...	...	...	...	...	...	...	...
2	2	...	...	...	4	1	...	...	1	...	...	...	...	...
3	1	1	...	...	4	...	...	...	...	...	...	...	...	...
4	1	...	2	2	...	...	...	...	...	...	...	...
5	1	1	1	...	10	1	...	...	...	...	...	...	...	...
6	3	...	...	...	...	...	...	...	...	...
7	3	...	...	...	...	...	...	...	...	...
8	4	...	...	...	...	...	...	...	...	...
9
10	4	...	...	...	...	...	...	...	...	...
11
12
13
14
15 & over	1	...	...	...	...	...	...	...	...	...

(e) Occupations of Samaritans.

Occupation	Persons	Earners			Dependants		
		Persons	Males	Females	Persons	Males	Females
Total	182	49	49	...	133	44	89
Sawyers, carpenters, turners, and joiners, etc.	11	4	4	...	7	1	6
Butchers	3	1	1	...	2	...	2
Tailors, milliners, dressmakers, darners, embroiderers	17	9	9	...	8	2	6
Others (thatchers, building contractors, house painters, tilers, plumbers, locksmiths, etc.)	1	1	1	...	...	...	...
Porters and messengers	1	1	1	...	...	...	...
Trade in piece goods, wool, cotton, silk, hair, and other textiles, and fibres	18	3	3	...	15	4	11
Trade in wood (not firewood), cork, bark, etc.	5	1	1	...	4	...	4
Dealers in firewood, charcoal, coal, dung, etc. for fuel	7	1	1	...	6	3	3
Grocers and sellers of vegetable oil, salt and other condiments	11	4	4	...	7	1	6
Itinerant traders, pedlars, hawkers, etc.	25	8	8	...	17	8	9
Police	4	2	2	...	2	...	2
Service of the state	4	1	1	...	3	1	2
Priests, ministers, sheikhs and rabbis, etc.	18	4	4	...	14	4	10
Burial ground service, pilgrim conductors, circumcisers, ritual slaughterers, beadles...	15	1	1	...	14	5	9
Lawyers' clerks, petition writers, etc.	1	1	1	...	...	...	...
Proprietors (other than of agricultural land), scholarship holders and pensioners	15	1	1	...	14	4	10
Cooks, water carriers, doorkeepers, watchmen and other indoor servants	3	1	1	...	2	2	...
Manufacturers, businessmen and contractors otherwise unspecified, general merchants...	1	1	1	...	...	...	...
Cashiers, accountants, bookkeepers, clerks and other employees in unspecified offices, warehouses and shops	20	3	3	...	17	8	9
Inmates of jails, mental homes and hospitals	2	1	1	...	1	1	...

CHRISTIAN¹ CHURCHES.

77. Statistics of the Christian Churches are given in considerable detail in Table VII, Parts (ii), (iii) and (iv) of Volume II and in Subsidiary Tables Nos. *IV*, *V*, *VI* and *VII* at the end of this chapter. Tabulation has been made on the basis of ten main denominations, the denomination Roman Catholic being divided into two groups, namely, the Latin Church and the Uniate Churches. Statistics.

The Christians as a whole have increased by just over 25 per cent., from 73,024 in 1922 to 91,398 in 1931. The variations in the various churches are to be found in Subsidiary Table No. *VII*.

78. The members of the Orthodox Church of Jerusalem form nearly 44 per cent. of the Christian population : and those of the Roman Catholic Church form 39 per cent., divided almost equally between the Latin Rite and the Uniate Churches. Of the Uniate Churches, the Melkite (Greek Catholic) is the most important, having nearly 13,000 members who form nearly 14 per cent. of the Christian population. The Maronites, who are mainly found in Syria, are represented by 3,400 persons forming not quite 4 per cent. of the Christian population. The Anglican Church (comprising the members of the local diocese, members of the Established Church of England, the Church of Wales and the Episcopal Church of Scotland), number nearly 5,000 persons, or rather more than 5 per cent. of the Christians. Various Protestant denominations outside the Anglican Church form about 7 per cent. of the Christian population. The distribu-
tion by
Churches.

79. The Christian population is divided into 86 per cent. of Palestinian citizenship and 14 per cent. of foreign citizenship. The details of foreign citizenship are given in Table VII in Volume II, but the numbers attached to foreign States are, on the whole, too small to make it worth while to prepare proportional tables. The proportions of Palestinians and foreigners vary considerably with the different Churches. Thus, 95 per cent. of the Orthodox Church of Jerusalem are Palestinian citizens ; 83 per cent. of the Roman Catholics and nearly 95 per cent. of the Uniate Churches are also nationals of Palestine. The Armenian Church (Gregorian) is composed of 89 per cent. Palestinian and 11 per cent. foreign citizens. On the other side, not quite 38 per cent. of the Anglican Church are local subjects, while 62 per cent. are foreigners. The proportions throughout satisfy normal expectation. The distribu-
tion by
citizenship.

80. In Subsidiary Table No. *VII* will be found the variations, absolute and proportionate, in the populations of the different Christian Churches during the period 1922-1931. The tabulations of 1922 contain no mention of the Assyrian (Nestorian) Church or of the Uniate Church of Assyrian Catholics. For purposes of comparison, it has been assumed that members of the former church were included in the Syrian Orthodox (Jacobite) Church ; and of the latter church in that of the Syrian Catholics. These assumptions seem to accord satisfactorily with the proportionate distributions of the two censal years. Variation
since 1922.

The proportion of members of the Orthodox Church of Jerusalem has fallen from about 46 per cent. in 1922 to about 44 per cent. in 1931. The proportion of Roman Catholics remains virtually the same, namely, 39 per cent., but, while the adherents to the Latin rite have increased their proportion from 19.5 per cent. to 20.7 per cent., the proportion of the Uniate Churches has fallen from 19.5 per cent. to 18.2 per cent., the fall being most marked in the case of the Melkite (Greek Catholic) Church. The proportion of members of the Anglican Church has fallen from 6 per cent. in 1922 to 5 per cent. in 1931. A significant increase from 2.4 per cent. to 6.6 per cent. is registered in the proportion of the various denominations unclassified. The most significant increase in numbers is found in

¹ I make no attempt to sketch the influence of Palestine in the world through Christianity. The subject is vast and entirely beyond the compass of a chapter in this Report. The fact that the leading nations of the world today are dominated by Christian thought and ethic needs no emphasis.—E.M.

Roman Catholics of the Latin rite, who have increased by 32.6 per cent. during the intercensal period. This large increase is undoubtedly due, to part, to the immigration of European Christians, some of whom are vowed to the conventual life. Both the Abyssinian Church and the unclassified denominations show increments of over 200 per cent. during the intercensal period ; but the absolute numbers of these populations are small so that the effect of these increases on the general increase of the Christian community is insignificant. A similar observation applies to the decrements in the Assyrian Catholic Church, the Coptic Church, the Presbyterian Church and the Lutheran Church. On the whole, it may be said that the configuration of the Christian community is stable, perhaps because of its interesting diversity.

SOME DETAILS RESPECTING THE CHRISTIAN CHURCHES.

81. The following notes are extracted from the *Handbook of Palestine and Trans-Jordan*, edited by H. C. Luke, Esq., C.M.G., and E. Keith-Roach, Esq., O.B.E.¹ :—

“(a) The
Uniate
Churches.

The Uniate Churches (Eastern Churches acknowledging the general supremacy of the Pope, but preserving in a greater or lesser degree their own liturgies and customs) represented in Palestine are the following : Melkites, Maronites, Armenian Uniates, Chaldaeans (*i.e.* Uniates who have separated from the Nestorians), Syrian Catholics (*i.e.* Uniates who have separated from the Jacobites), and Abyssinian Uniates. Most of these Churches are represented in Palestine by small flocks, principally resident in Jerusalem.

Melkites. The most numerous of the Uniate communities as regards Palestine is that of the Melkites, who have a considerable flock in Galilee and a seminary connected with the Church of S. Anne in Jerusalem, conducted since 1878 by the White Fathers. The Melkite Patriarch of Antioch, Alexandria, and Jerusalem generally lives in Damascus ; a Melkite Archbishop of Galilee resides at Haifa.

Armenians. The Armenian Uniates possess a handsome cathedral in Jerusalem (Our Lady of the Spasm), in the Via Dolorosa. From 1855 to 1867 there was an Armenian Uniate Archbishop of Jerusalem ; a Vicar-General now represents in Jerusalem the Armenian Catholic Patriarch of Cilicia who in 1929 transferred the seat of his Patriarchate from Rome back to Azemm near Beirut, where it had been originally established in 1750.

Syrian Catholics. The Syrian Catholics are governed by the Syrian Catholic Patriarch of Antioch ; a seminary for Syrian Catholic theological students is conducted by French Benedictines in the Benedictine Monastery of Bethany.

Maronites. The Maronite Church is governed by the Maronite Patriarch of Antioch who resides in the Lebanon ; there is a Maronite Bishop of Tyre and Palestine, who resides at Tyre.

“(b) The
Armenians.”

The Armenian Community in Palestine. The members of the ‘Apostolic, Catholic and Orthodox Armenian (commonly called Gregorian) Church’ at present living in Palestine number about 3,000, of whom more than half reside in Jerusalem. The Armenians are known in Palestine from early times; and the Vardabet Anastasius, who made a pilgrimage from Armenia to Palestine in the seventh century, has left a list of 70 Armenian monasteries then in existence in the Holy Land. In 1868 and 1893, important Armenian mosaics,

¹ Macmillan & Co. Ltd., 1930. pp. 48-51.

“ attributed to the sixth century, were discovered in the grounds of the Russian convent on the Mount of Olives, and in 1894 another fine mosaic of the same period was discovered at the southern end of the Street of the Prophets near the Damascus Gate.

“ *The Armenian Patriarchate of Jerusalem.* From early times there has been a Bishop of the Armenian Church in Jerusalem, where the Armenians enjoy the ownership or part-ownership of several of the Holy Places. Their Cathedral of S. James the Great and S. James the Less, together with a vast Patriarchate, schools, chapels and gardens, occupies most of the south-west corner of the old city. The date when the Armenian Bishops of Jerusalem obtained the title of Patriarch is not known for certain; but in 1006 the Patriarch was Arsen; in the reign of Saladin, Abraham; in 1311, Sarkis (Serguis). The *Firman* granted by Saladin to the Patriarch Abraham is still preserved in the Patriarchate.

“ The jurisdiction of the Armenian Patriarch of Jerusalem extends over the Gregorian Armenians in Palestine. Cyprus was at one time included within his jurisdiction; while in 1928, by special agreement between the Patriarch and the Katholikos of Sis, who at present resides in Syria, the former has transferred to the latter his jurisdiction and churches in Syria for as long as the Katholikos and his flock remain in Syria.

“ In September, 1921 His Beatitude Yeghiché Turian, ex-Patriarch of Constantinople (created a K.B.E. in 1930), was elected Armenian Patriarch of Jerusalem, after the throne had been vacant for eleven years, and was enthroned on the 7th November following after receiving the formal approval of the King to his appointment. This was the first occasion on which a British Sovereign officially approved the election of an Eastern Patriarch.

“ *The Syrian Orthodox Bishopric of Jerusalem.* The Jacobites, whose official designation is ‘Syrian Orthodox’, take their more familiar if less accurate appellation from Jacob Baradai, who built up a Monophysite Church in Syria in the sixth century. They are in communion with the Copts. Their rite is a Syriac form of the ancient rite of Antioch, with the liturgy attributed to S. James the Less, and Syriac is their language. We first hear of a Jacobite Bishop of Jerusalem at the end of the sixth century (Severus), and from 1140 onwards the succession is regularly maintained. For centuries the office of Bishop of Jerusalem was combined with that of ‘*Mafrian*’, who was the principal auxiliary of the Jacobite Patriarch of Antioch. The Jacobite Bishop of Jerusalem’s residence is the convent built around the traditional house of S. Mark in Jerusalem.

“ (c) Jacobites,
Copts and
Abyssinians.

“ *The Copts.* The first Coptic Metropolitan of Jerusalem was appointed in the middle of the thirteenth century, since when there has been a regular succession. The episcopal residence adjoins the eastern end of the Church of the Holy Sepulchre, and there is a large Coptic Convent at Jaffa, principally intended for the accommodation of Coptic pilgrims from Egypt.

“ *The Abyssinians.* The Abyssinians have preserved, in the heart of Africa and surrounded by Moslem and pagan peoples, the Christianity to which they were converted in the fourth century. They are Monophysites and in communion with the Copts, from whom they receive their chief Bishop (*Abuna*). The Abyssinians, in common with the other Christian episcopal churches, are represented in Jerusalem, where they have several convents, including one situated on the roof of S. Helena’s Chapel in the Holy Sepulchre, as well as a certain amount of real property outside the walls. They have likewise a sanctuary on the banks of the Jordan.”

THE ASSYRIAN (NESTORIAN) CHURCH.

General. 82. It is just possible that among the Syrian Jacobites are included a small number of members of the Assyrian (Nestorian) Church.

THE ANGLICAN CHURCH.

Introductory. 83. The Anglican Church in Palestine, as representing the Established Church of England and the Anglican Communion throughout the world, has a special interest. The following note has been prepared by the Rev. H. Danby¹, D.D., Canon of St. George's Cathedral, Jerusalem:—

“ The beginnings of the Anglican Church in Palestine go back to 1825, when agents of the London Society for Promoting Christianity amongst the Jews (now known as “ The Church Missions to Jews ”) began work on a modest scale with temporary stations at Beirut, Tyre, Sidon, Safad, Tiberias and Jerusalem. English interest in this work quickly grew, and, in 1839, permission to buy land in Jerusalem and to build a church was secured from Muhammed Ali, the Egyptian Viceroy who, 1832—40, successfully held Syria and Palestine against his master, the Sultan of Turkey. The troubles consequent on the restoration of Turkish rule, and the unfriendliness of the Porte, delayed the completion of this church, Christ Church inside the Jaffa Gate, until 1849. The same Society developed its work on an increasingly large scale, and, by 1850, had opened a hospital, schools and various ancillary institutions.

“ 1841 saw the foundation of an Anglican-Prussian Episcopate with its centre at Jerusalem. This came about through the initiative of King Frederick William IV of Prussia. He had a double purpose. He wished to secure legal recognition and rights for the Protestants in the Ottoman Empire who, unlike the other Christian communities and the Jews, had no recognizable status under the Turkish *millet*² system; and he wished ultimately to secure episcopal orders for the Lutheran Church in Germany. The first object he sought to secure by the means customary in Turkey—by the authorization of an ecclesiastical supreme head who should represent the interests of all Protestants in the Empire. The second object, it was hoped, might become possible through an arrangement which placed the nomination to this Episcopate in the hands of the British and Prussian sovereigns alternately.

“ In spite of strong opposition from various groups within the Anglican Church³, the scheme was carried through with astonishing rapidity. The Prussian proposal was conveyed to England by the Chevalier Bunsen on June 8, 1841; the necessary bill was introduced into the House of Lords by the Archbishop of Canterbury on August 30; it received the royal assent on October 5; the first occupant of the See, Michael Solomon Alexander, a converted Polish Jew from Prussian Posen, was nominated by the English Premier and consecrated on November 11, and on December 7 he sailed for Palestine on board H.M. Steam Frigate “ Devastation ”.

¹ I would here express my indebtedness to Canon Danby for his kindness in responding to my request for a note on the Anglican Church in Jerusalem. I, among others, was not familiar with all the historical details which account for its presence in Palestine.—E.M.

² See Chapter III—‘ Nationality ’ within citizenship.—E.M.

³ *The Times*, October 19, 1841. This opposition has received a niche in English literature in Cardinal Newman's *See Apologia Pro Vita Sua* (see end of Part V).—H.D.

“ This Anglican-Lutheran Bishopric only endured from 1841 to 1881. Michael Solomon Alexander occupied the See from 1841 to 1845 ; Samuel Gobat from 1846 to 1879, and Joseph Barclay from 1879 to 1881. The episcopate of the first and third, both nominees of the British Crown, was too short to affect the growth and policy¹ of the Anglican Church in Palestine. It was Bishop Gobat, the choice of the Prussian king, who is primarily responsible for the creation of groups of Arab Anglican Protestants in Palestine and Transjordan. Protestant missionary activities extending over some thirty years had made certain groups among the Orthodox Church dissatisfied with their own leaders, and in due course they were collected together by Bishop Gobat into Protestant congregations. This happened first at Nablus. By the end of his long term of office Bishop Gobat had, as a result of conditions parallel to those in Nablus, established Anglican Arab congregations at Ramallah, Nazareth, Jaffa, Acre, Gaza, Ramle, Lydda, Shafa ‘Amr, Kefr Yasif, Jerusalem, es-Salt, el-Husn, and, temporarily, at el-Kerak. To help him in the pastoral care of these scattered groups, Bishop Gobat called to his assistance in 1851 the Church Missionary Society, and at his death the schools, hospitals and other fabrics which he had acquired passed into the care of this Society. The organization of the Arab Anglican community reached a further stage in 1907 with the formation of “ The Palestinian Native Church Council ”, which was to be in a certain degree self-governing and, in time to come, even self-supporting. With the death of the third Bishop, Joseph Barclay, the Prussian Crown withdrew from the cooperative arrangement. The bishopric remained in abeyance for six years. It was revived in 1887 by Archbishop Benson, at the express wish of the Orthodox Patriarch of Jerusalem², as an exclusively Anglican Bishopric. George Francis Popham Blyth was appointed Bishop according to this new system, and it was his foresight and assiduity which raised the present complex of buildings known as “ St. George’s ”—a worthy church to house the episcopal throne, a Bishop’s House, College of Clergy, and school buildings—and which established a fund, supported by the Anglican Communion throughout the whole of the British Empire and America, to enable him to carry out any work which he considered essential for the effective spiritual oversight of the Diocese (which then included Syria, Cyprus, Palestine, Egypt, and, for a time, the Sudan), and to do this independently of the two great British Missionary Societies which continued to work on a considerable scale at many centres in his diocese. He was succeeded in 1914 by Rennie MacInnes, in whose time the Anglican Community in Palestine was greatly enlarged in consequence of the British Occupation and the increase of British official and non-official personnel resulting from the British Mandate over Palestine and Transjordan. He was succeeded in 1932 by George Francis Graham Brown.

¹ The authorized “ Statement of Proceedings relating to the Establishment of the Bishopric ”, dated December 9, 1841, contains the following direction : “ His spiritual jurisdiction will extend over the English clergy and congregations, and over those who may join his Church and place themselves under his Episcopal authority in Palestine, and, for the present, in the rest of Syria, in Chaldea, Egypt, and Abyssinia; such jurisdiction being exercised, as nearly as may be according to the laws, canons, and customs of the Church of England ; the Bishop having power to frame, with the consent of the Metropolitan, particular rules and orders for the peculiar wants of his people. His chief missionary care will be directed to the conversion of the Jews, to their protection, and to their useful employment. He will establish and maintain, as far as in him lies, relations of Christian charity with other Churches represented at Jerusalem, and in particular with the Orthodox Greek Church ; taking special care to convince them, that the Church of England does not wish to disturb, or divide, or interfere with them ; but that she is ready, in the spirit of Christian love, to render them such offices of friendship as they may be willing to receive.”—H.D.

² The policy of the Bishopric as re-fashioned is defined as “ the maintenance of relations of Christian charity, now so happily established, with the other Christian Churches represented in Jerusalem, especially the Eastern Orthodox Church, with a view to co-operation on Catholic principles, and to the promotion of Christian unity, as laid down in the statement of the Archbishops of Canterbury and York and the Bishop of London on the reconstitution of the Bishopric in 1887.”—H.D.

SUBSIDIARY TABLE No. I.
*General distribution of the total population * by religion.*

LOCALITY AND RELIGION	Actual population	Number per 10,000 of population in		Variation per cent. 1922 — 1931 Decrease (—)
	1931	1931	1922	
PALESTINE				
All religions	1,035,821	10,000	10,000	36.8
Moslems	759,712	7,334	7,804	28.6
Jews	174,610	1,686	1,107	108.4
Christians	91,398	882	964	25.2
Others	10,101	98	125	0.7
SOUTHERN DISTRICT				
All religions	361,797	3,493	3,456	38.2
Moslems	267,587	2,584	2,005	21.6
Jews	78,723	760	376	176.3
Christians	15,155	146	159	25.5
Others	332	3	16	— 72.0
JERUSALEM DISTRICT				
All religions	266,562	2,573	2,660	32.4
Moslems	173,019	1,670	1,774	28.8
Jews	54,959	531	461	57.6
Christians	38,488	371	419	21.3
Others	96	1	6	— 80.6
NORTHERN DISTRICT				
All religions	407,462	3,934	3,884	38.6
Moslems	319,106	3,080	3,125	34.9
Jews	40,928	395	270	100.4
Christians	37,755	365	386	29.2
Others	9,673	94	103	24.0

*Including nomadic population.

SUBSIDIARY TABLE No. II.

Proportional strength of the main religions in each district and sub-district in 1922 and in 1931*.

DISTRICT	Number per 10,000 of the population in each district & sub-district who are							
	MOSLEMS		JEWS		CHRISTIANS		OTHERS	
	1931	1922	1931	1922	1931	1922	1931	1922
1	2	3	4	5	6	7	8	9
PALESTINE	7,334	7,804	1,686	1,107	882	964	98	125
SOUTHERN DISTRICT	7,396	8,405	2,176	1,089	419	461	9	45
Gaza Sub-district	9,861	9,841	44	46	95	113	...	...
Beersheba Sub-district	9,966	9,954	3	14	30	31	1	1
Jaffa Sub-district	4,500	5,190	4,796	3,695	682	1,114	22	1
Ramle Sub-district	8,202	8,197	1,204	801	592	766	2	236
JERUSALEM DISTRICT	6,491	6,668	2,062	1,732	1,444	1,575	3	25
Hebron Sub-district	9,961	9,906	20	80	18	14	1	...
Bethlehem Sub-district	5,499	5,862	10	...	4,480	4,138	3	...
Jerusalem Sub-district	4,354	4,476	4,111	3,772	1,531	1,698	4	54
Jericho Sub-district	8,467	9,218	698	31	755	751	80	...
Ramallah Sub-district	8,166	8,055	...	2	1,834	1,943	...	...
NORTHERN DISTRICT	7,832	8,047	1,004	694	927	994	237	265
Tulkarm Sub-district	9,776	9,915	144	7	77	76	3	2
Nablus Sub-district	9,797	9,779	1	3	177	192	25	26
Jenin Sub-district	9,793	9,737	1	2	206	197	...	64
Nazareth Sub-district	6,303	6,586	1,109	309	2,582	3,105	6	...
Beisan Sub-district	8,379	9,066	1,290	655	315	279	16	...
Tiberias Sub-district	6,134	6,024	2,886	3,011	643	636	337	329
Haifa Sub-district	5,534	6,116	2,448	1,549	1,727	1,967	291	368
Acre Sub-district	7,068	7,014	66	40	1,699	1,743	1,167	1,203
Safad Sub-district	8,555	7,594	926	1,687	397	550	122	169

*Nomadic population included.

SUBSIDIARY TABLE No. III.

Proportionate distribution of urban and rural populations by religion.

	Number per 10,000 of urban population who are				Number per 10,000 of rural population who are			
	Moslems	Jews	Christians	Others	Moslems	Jews	Christians	Others
PALESTINE	4,856	3,317	1,788	39	8,814	712	341	133
SOUTHERN DISTRICT	5,539	3,529	910	22	8,707	1,221	72	...
JERUSALEM DISTRICT	3,209	4,215	2,571	5	9,255	249	494	2
NORTHERN DISTRICT	5,708	2,097	2,099	96	8,674	571	461	294

SUBSIDIARY TABLE No. IV.
Distribution of Christians by locality.
Number of persons and variation 1922-1931.

DISTRICT AND SUB-DISTRICT	Actual number of Christians in		Variation per cent. 1922-1931 Decrease (—)
	1931	1922	
P A L E S T I N E...	91,398	73,024	25
SOUTHERN DISTRICT	15,155	12,079	25
Gaza Sub-district	897	812	10
Beersheba Sub-district	153	235	—35
Jaffa Sub-district	9,921	7,275	36
Ramle Sub-district	4,184	3,757	11
JERUSALEM DISTRICT	38,488	31,726	21
Hebron Sub-district	124	73	70
Bethlehem Sub-district	10,628	10,183	4
Jerusalem Sub-district	20,309	15,496	31
Jericho Sub-district	263	144	83
Ramallah Sub-district	7,164	5,830	23
NORTHERN DISTRICT	37,755	29,219	29
Tulkarm Sub-district	356	263	35
Nablus Sub-district	1,214	1,085	12
Jenin Sub-district	851	661	29
Nazareth Sub-district	7,384	7,043	5
Beisan Sub-district	477	297	61
Tiberias Sub-district	1,734	1,316	32
Haifa Sub-district	16,492	11,107	48
Acre Sub-district	7,672	6,194	24
Safad Sub-district	1,575	1,253	26

SUBSIDIARY TABLE No. V.
Christian population by churches.

CHRISTIAN CHURCHES	Total			Palestinians			Other than Palestinians		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
T O T A L	91,398	45,896	45,502	78,291	38,031	40,260	13,107	7,865	5,242
Orthodox Church of Jerusalem...	39,727	19,565	20,162	37,703	18,718	18,985	2,024	847	1,177
Syrian Orthodox (Jacobite) ..	1,042	582	460	921	491	430	121	91	30
Roman Catholic :	35,578	17,083	18,495	31,491	14,737	16,754	4,087	2,346	1,741
a) Latin ...	18,895	8,714	10,181	15,728	6,912	8,816	3,167	1,802	1,365
b) Uniate Churches	16,683	8,369	8,314	15,763	7,825	7,938	920	544	376
Melkite (Greek Catholic) ...	12,645	6,289	6,356	12,347	6,145	6,202	298	144	154
Maronite ...	3,431	1,738	1,693	3,036	1,504	1,532	395	234	161
Armenian Catholic	330	238	92	142	88	54	188	150	38
Syrian Catholic	171	69	102	146	59	87	25	10	15
Assyrian Catholic (Chaldean) ...	106	35	71	92	29	63	14	6	8
Armenian Church (Gregorian)...	3,167	1,628	1,539	2,820	1,434	1,386	347	194	153
Coptic Church ...	219	128	91	161	90	71	58	38	20
Abyssinian Church ...	282	278	4	1	1	...	281	277	4
Anglican Church ...	4,799	3,320	1,479	1,810	911	899	2,989	2,409	580
Presbyterian Church ...	170	117	53	17	9	8	153	108	45
Lutheran Church ...	344	156	188	141	62	79	203	94	109
Various denominations unclassified ...	6,070	3,039	3,031	3,226	1,578	1,648	2,844	1,461	1,383

SUBSIDIARY TABLE No. VI.

Distribution of Christians per mille.

(a) Citizenship by churches, and (b) Churches by citizenship.

SECTS	(a) CITIZENSHIP DISTRIBUTED BY CHURCHES			(b) CHURCHES DISTRIBUTED BY CITIZENSHIP		
	Palestinians	Other than Palestinians	Total	Palestinians	Other than Palestinians	Total
TOTAL	1,000	1,000	1,000	857	143	1,000
Orthodox Church of Jerusalem... ..	482	154	435	949	51	1,000
Syrian Orthodox (Jacobite)	11	9	11	884	116	1,000
Roman Catholic	403	312	389	885	115	1,000
a) Latin	201	242	207	832	168	1,000
b) Uniate Churches... ..	202	70	182	945	55	1,000
Melkite (Greek Catholic)	158	23	138	976	24	1,000
Maronite	39	30	37	885	115	1,000
Armenian Catholic	2	14	4	430	570	1,000
Syrian Catholic	2	2	2	854	146	1,000
Assyrian Catholic (Chaldeans)	1	1	1	868	132	1,000
Armenian Church (Gregorian)... ..	36	27	35	890	110	1,000
Coptic Church	2	4	2	735	265	1,000
Abyssinian Church ... ..	...	21	3	4	996	1,000
Anglican Church	23	228	53	377	623	1,000
Presbyterian Church ... ..	...	12	2	100	900	1,000
Lutheran Church	2	16	4	410	590	1,000
Various denominations unclassified	41	217	66	531	469	1,000

SUBSIDIARY TABLE No. VII.

Comparative distribution of the Christian Churches 1922 and 1931 and the variations in strength 1922-1931.

CHURCHES	POPULATION				VARIATION 1922-1931	
	Absolute		Proportionate		Absolute Decrease (—)	Per cent. Decrease (—)
	1931	1922	1931	1922		
1	2	3	4	5	6	7
TOTAL Persons	91,938	73,024	1,000	1,000	18,374	25.2
Orthodox Church of Jerusalem... ..	39,727	33,369	435	457	6,358	19.0
Syrian Orthodox (Jacobite)	1,042	813	11	11	229	28.2
Roman Catholic	35,578	28,412	389	390	7,166	25.2
(a) Latin Rite	18,895	14,245	207	195	4,650	32.6
(b) Uniate Churches	16,683	14,167	182	195	2,516	17.8
Melkite (Greek Catholic)	12,645	11,191	138	153	1,454	13.0
Maronite	3,431	2,382	37	33	1,049	44.0
Armenian Catholic	330	271	4	4	59	21.8
Syrian Catholic	171	{ * 323	2	{ * 5	{ * — 46	{ * — 14.2
Assyrian Catholic (Chaldeans)	106		1			
Armenian (Gregorian)	3,167	2,939	35	40	228	7.8
Coptic	219	297	2	4	— 78	— 26.3
Abyssinian	282	85	3	1	197	231.8
Anglican	4,799	4,553	53	62	246	5.4
Presbyterian	170	361	2	5	— 191	— 52.9
Lutheran... ..	344	437	4	6	— 93	— 21.3
Various denominations unclassified	6,070	1,758	66	24	4,312	245.3

*It would appear that the tabulations of 1922 included in one church, Syrian Catholic, members both of itself and of the Assyrian Catholic Church.

CHAPTER V.—AGE.

General.

84. The statistics relating to age are given in Volume II—Table VIII (Age, Sex and Conjugal Condition) and in the following Subsidiary Tables at the end of this chapter:—

- I. — Age distribution ungraduated and graduated by individual years for the three principal confessions.
- II. — Suggested standard populations by age, sex and main religions.
- III. — Age distribution per ten thousand persons by quinary age groups, locality and main religious confessions.
- IV. — Proportion of children under 10 and of persons over 60 to those aged 18–45; also of married females aged 18–45 per 100 females of all ages.
- V. — Birth-rates, death-rates and infantile mortality declared by the Department of Public Health 1923–1931.
- VI. — Infantile mortality 1923–1931.
- VII. — Approximate mortality at ages 1 year and over.

The instruction to enumerators as regards the individual returns of age was:—

“For persons of more than one year in age enter the number of years completed at last birthday and neglect fractions of years, *e.g.* ‘one’, ‘two’, ‘forty-seven’, etc., etc. For infants of less than one year in age enter ‘Under one’.”

Since the ages to be stated were those at last birthday, the ages returned, in so far as they were accurate, are on the average six months too low. To record ages as at the nearest birthday avoids this average deficiency in the age of individuals but leads to great confusion in the group of infants in the ages between birth and less than two years.

85. The census requirement seems simple enough: the results are curious and of great interest. Diagram No. 12 shows, by individual years, the actual returns of ages of all persons at the census. Tabulation was conducted on the basis of annual periods up to the age of 74 years but was carried no farther, so that the terminal ordinate at the age of 75 years represents the number of persons who declared themselves as of age of 75 years and more. In England and Wales it is becoming doubtful whether, even with the advantages of mechanical tabulation, it is worth the trouble to set out the age returns at a census by annual periods. Individual year tabulation as a measure of the incidence of age indeed presents no marked advantage over the shorter and more easily studied series of quinary age groups, provided that the distortions due to error in the original returns are not so great as to conceal the significant trends and fluctuations of the age distribution. The diagram of the actual ages returned in Palestine shows, however, that the fluctuations are so violent at ages the final digits of which are 0 and 5 and, to a smaller degree, at ages of which the final digit is 8, that no trustworthy inferences can be made either from the individual year tabulation or from the tabulations in five-year or ten-year groups. At a later stage in this chapter it will be shown how this and similar irregular curves may be made to yield certain of their significances in relation to certain characters of the population.

No curve of age distribution can ever be quite regular since birth-rates and death-rates vary from time to time, while migration is also a quantity with large fluctuations. Nevertheless the curve for Palestine in its present form is not inter-

ALL RELIGIONS
ACTUAL AGES RETURNED AT CENSUS
TOTAL PERSONS

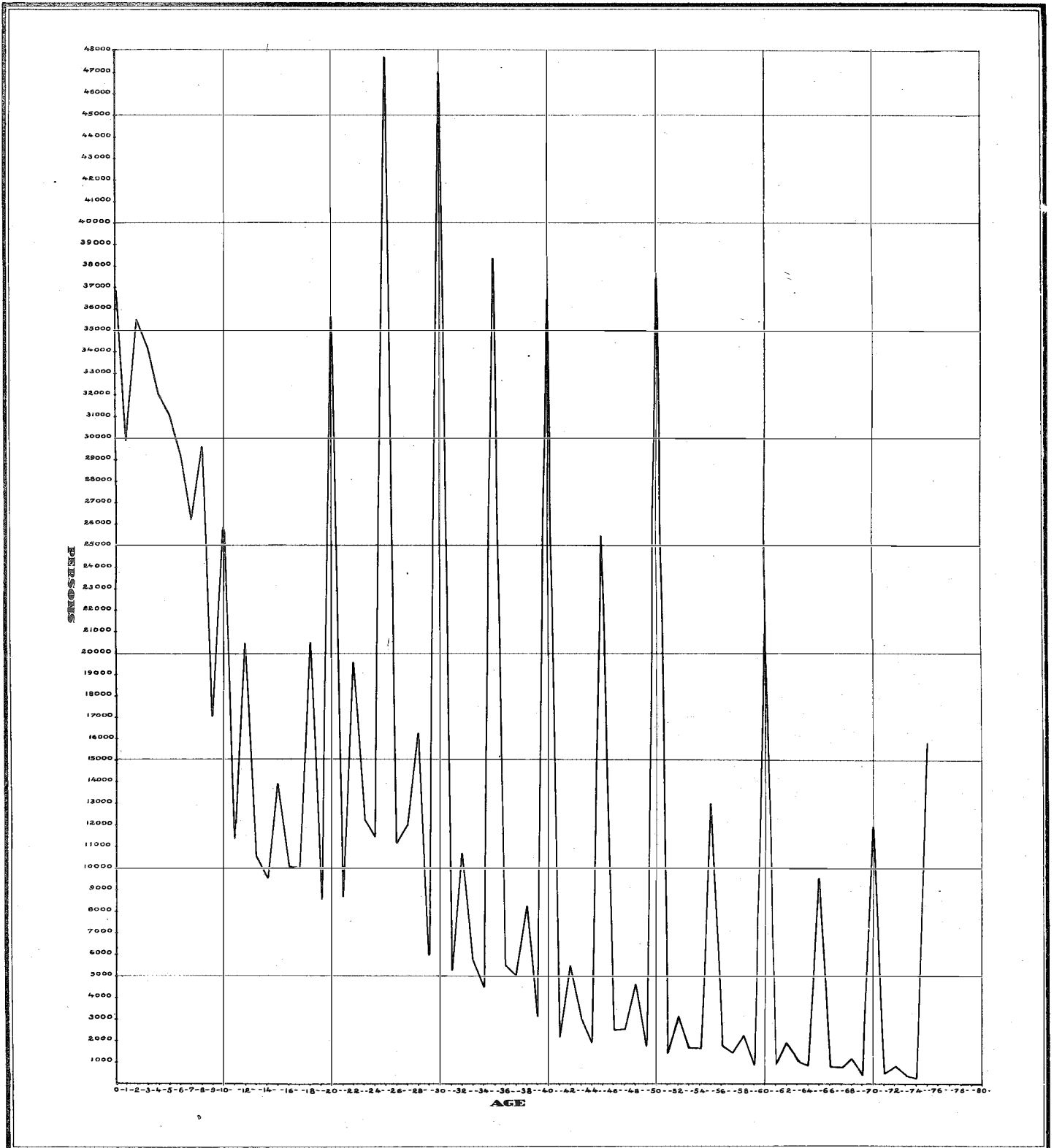


DIAGRAM No. 12

pretable, its fluctuations being so rapid and violent as to disguise its main features. For the moment it is enough to point out that the curve gives evidence of a definite trend only between the ages of 0 and 10. This trend appears to be convex upward on the side remote from the horizontal axis, the convexity being well marked up to the age of 8 years. There are two sharp minima at the ages of 1 year and 9 years respectively; and the question arises whether these minima represent significant movements of the population? As a general rule, a typical age distribution is such that the number of persons living in a particular year of life is less than the number living in the preceding year of life, and greater than the number living in the succeeding year of life. Exceptions to this general rule occur when there was a sudden and perceptible fall in the birth-rate of the year in which the survivors, who cause the exception under discussion, were born; or when there has been a sudden and very perceptible mortality in the generation whose ages are in question; or when there has been a considerable migration affecting that same generation; or when any two or all these causes have been operating together.

Examination of the recorded births and of the recorded deaths among children, declared as under ten years at the census, has failed to reveal a perceptible shrinkage in the birth-rates corresponding to the years of children aged one year and nine years at the date of the census; or infantile or child mortality such as might account for true deficiencies at those ages. An examination of the migration records shows that, so far from there being an emigration leading to deficiencies at those ages, the tendency is in the opposite direction, although the numbers of children entering the country are not so great as to have a marked effect on configuration of the age distribution between 0 and 10 years. It follows then that the deficiencies revealed at the ages of one year and nine years have no significance and are due solely to error in the returns of ages. The question of error in age returns is fully discussed in the next section of this chapter; but it may be useful here to state that in most eastern countries there appears to be considerable uncertainty as to the age of a child between birth and three years old. It is usual for Moslem mothers to keep their babies at the breast for two or more years, and that, in itself, leads to a measure of uncertainty in the age of a child. Lunar calendars and the day of the new year add to the difficulties. A baby may often be thought to be one year old after its birth since it cannot be of zero age, and when the day of the new year is reached such a child may be considered as of two years of age. Hence for this reason alone it sometimes happens that at a census too many children are declared as of two years of age and too few as of one year of age.

At the very beginning of the investigation of the age distribution error has been detected and it is necessary, therefore, to analyse the character of the errors in the distribution before proceeding with detailed discussion of the main problem.

ERRORS IN THE AGE RETURNS.

86. Mis-statements of age occur in all censuses. As will be seen later the errors made by an educated and literate population are smaller than those made by an illiterate people. Errors in age statements are usually of two kinds, first, those which are unbiassed in character because derived from an habitual looseness of thought and expression or from complete ignorance and, secondly, those which are biassed in character being either wilful omissions or deliberate mis-statements which give a definite distortion to the curve for the elimination of which it is difficult or impossible to find a law. A third kind of mis-statement falls partly into the former class mentioned but needs to be distinguished from it because it always operates in the same direction: it is the mis-statement by which a person having been asked his age at last birthday gives his age as at next birthday. These types of error are examined in turn.

Unbiased
error.

87. First, the local and unbiased errors are easily identifiable in the age returns by individual year tabulation. In the curve to which reference has been made (Diagram No. 12) it will be seen that there appear to be emphatic tendencies to return ages ending with the digits 0, 5 and 8 in that order. These errors can be removed by graduation, which will be discussed in a later section of this chapter, or by the amalgamation of successive years' figures in groups centrally disposed about the points of greatest inflexion.

The anomalies to which reference has been made above will be strikingly evident in the table given below which¹ relates to the whole age distribution :—

Sex	Digits of age recorded at census									
	0	1	2	3	4	5	6	7	8	9
	Numbers per 10,000 in respect of each digit									
Male ...	2,352	667	1,077	757	666	1,839	666	654	902	420
Female ...	2,755	595	979	695	646	1,927	621	568	839	375

It will be seen that very nearly one quarter of the males and more than one quarter of the females have been returned in respect of ages ending with the digit 0; and that nearly one fifth have been returned in respect of ages ending with the digit 5. The selection of the two digits 0 and 5 no doubt arises from ignorance or indifference as to exact age which is stated at the assumed nearest multiple of 5. In this respect the censuses of Europe show similar characteristics although to a considerably less marked extent.

The figures given above relate to the whole distribution and therefore include the numbers of babies returned as aged between birth and one year. To that extent therefore the revelation of preferences for the even multiples of 5 is over-weighted by the inclusion of a number of infants whose age was correctly stated as being under one year and in whose respect no unbiased preference has been exercised. Furthermore the law of the distribution of ages in early childhood is different from that which governs the distribution of ages in late adolescence and maturity, so that it has become customary in discussion of mis-statements of age to consider the population lying between the ages of 23 years and 63 years, and, in some cases, between 23 years and 73 years (*i.e.* 23 years to 72 years inclusive).

88. An index of concentration is used by the United States Census Bureau in their study of error due to the selection of ages which are multiples of the digit 5. This index is defined as the percentage ratio which the number of persons returning ages as multiples of 5 years to one fifth of the population returned at ages between 23 years and 62 years inclusive (23-63). It was found that the index of concentration varied inversely with the literacy and education of the population considered². The following table shows the indices of concentration for each sex

¹ Strictly the persons aged 75 years and over whose ages are not distinguished by individual years should be excluded, but since no practical use is subsequently made of this table and since from sample examinations these persons were returned mainly at ages, multiples of 5, the table is left in its present form.—E.M.

² Whipple, G.C.H. *Vital Statistics*, New York 1923.

and religious confession in Palestine and for total populations in other countries :—

Table A.

PALESTINE.

INDEX OF CONCENTRATION BY RELIGION AND SEX.

Religion	Persons	Males	Females
All religions	303	287	327
Moslems	362	343	381
Christians	226	198	253
Jews	163	153	173

Table B.

INDEX OF CONCENTRATION IN AGE IN DIFFERENT COUNTRIES.

Both sexes.

Country	Year of census	Index of concentration
Switzerland	1920	99
Belgium	1920	100
Germany	1925	101
Denmark	1921	102
England and Wales	1921	103
U.S.A.	1920	107
U.S.A. (coloured persons)	1920	153
Hungary	1900	133
Poland	1921	135
Russia	1897	182
Bulgaria	1905	245
Palestine	1931	308

The indices of concentration for Indian Provinces and for the Indian Empire as a whole for 1911 and 1921 are about the same as those for Palestine. A more detailed analysis of the indices of concentration is given in the following table in which the concentrations are given for the specific ages which are even and odd multiples of 5 :—

CONCENTRATION AT AGES ENDING WITH DIGITS 0 AND 5.

(a) Digit 0

Country	MALES					FEMALES				
	30	40	50	60	70	30	40	50	60	70
Belgium	99	97	101	101	104	99	98	101	101	103
Germany... ..	99	101	101	100	97	101	101	100	98	98
England and Wales	104	105	106	108	103	106	106	108	110	106
Austria	99	101	103	102	101	101	103	104	103	98
U.S.A.	114	118	125	129	120	118	122	131	134	128
Canada	116	122	126	135	122	119	124	131	140	132
Poland	114	125	140	172	193	145	161	179	205	222
Palestine	254	304	329	360	376	296	351	381	410	409
Moslems	307	343	364	398	426	349	391	423	452	449
Christians	183	227	246	266	296	221	266	308	355	347
Jews	141	190	216	234	244	155	214	246	280	362

(b) Digit 5

Country	MALES					FEMALES				
	25	35	45	55	65	25	35	45	55	65
Belgium	99	100	100	98	95	99	101	101	99	96
Germany	103	100	101	107	103	101	100	102	108	104
England and Wales ...	99	100	104	97	106	100	101	104	97	105
Austria	100	102	100	101	100	101	101	100	102	102
U.S.A.	101	114	120	105	120	104	116	122	91	124
Canada	101	121	128	111	123	105	116	124	113	123
Poland	104	108	124	126	123	113	128	143	138	150
Palestine	237	310	347	316	341	267	339	369	429	375
Moslems	301	370	396	372	403	328	400	427	412	440
Christians	134	217	244	228	269	179	247	292	278	331
Jews	114	141	142	190	181	216	182	234	183	244

Concentration indices. Index = $\frac{5u_m}{\sum_{m-a}^{m+a} u_r}$ where u_m is the population at the age of concentration m years.

It will be seen that the index of concentration increases in Palestine directly with age, as it does in most cases, but the progression is distinctly more emphatic in respect of Palestine than in respect of other countries; showing that lack of personal records, illiteracy and forgetfulness due to advancing years are all factors in the age constitution of the population as given by the census returns. It is clear that the violent fluctuations of the Palestine curve at age-years which are the multiples of 5 are unbiased errors due to ignorance of age which leads people to declare an assumed age at what is termed a round number.

89. A reference to the general diagram reveals that, while the curve is certainly irregular up to the age of 20 years, it is consistently distorted from that age onward until 75 years. If individual tabulation had been continued beyond 75 years the same consistency of distortion would have been observed as indeed it was in samples tested for age: but since the aged tend to exaggerate the tale of their years the curve of actual declarations by annual periods has not been carried beyond that point. A diagram has not been given for each of the sexes in the whole population, but reference to the subsidiary tables will show that the distortions of ages of both males and females are similar, and that the distortions of the ages of the females are more exaggerated at the even multiples of 5 than those in respect of the males. Another feature common to the distributions of both the male and the female ages is an apparent preference for even numbers over odd, ages ending with the digit 8 coming first among these apparent preferences. The coincident preferences for multiples of 5 and for even multiples may be the explanation of the obviously greater distortions at ages ending with the digit 0, since the preferences combined synchronize at those ages but are in opposition at the ages which are odd multiples of 5.

In order to test these apparent preferences the male and female populations were grouped into five decennial sections 23-33, 33-43 . . . , covering the whole population aged 23 years to 72 years inclusive. The numbers at individual years of age were then aggregated in groups differentiated according to the unit digits of the ages so that persons returned as 23, 33, 43, 53 and 63 formed the first

group, those at 24, 34, etc., the second group, and so on, ten groups being so made. The result of the grouping is given below:—

ACTUAL POPULATION AGED 23-73 YEARS.

Ages ending in				Males	Females
3	...	...	...	13,205	10,796
4	...	...	...	10,717	9,866
5	...	...	...	64,675	69,576
6	...	...	...	11,711	10,258
7	...	...	...	12,109	9,946
8	...	...	...	17,412	15,487
9	...	...	...	6,686	5,597
0	...	...	...	63,203	80,621
1	...	...	...	6,105	4,287
2	...	...	...	12,334	10,027
Total	...	...	...	218,157	226,461

In order to have a common basis for the discussion of the two distributions it is necessary to express the frequencies given in the table proportionately to populations of ten thousand males and females respectively.

The figures so obtained are given in the second columns of the statements immediately following and are displayed in the very irregular curves in continuous lines shown in Diagram No. 13.

Ages with unit digit of	Proportionate population		Difference		Ages with unit digit of	Proportionate population		Difference	
	Actual	Graduated	Amount	Per cent. of graduated		Actual	Graduated	Amount	Per cent. of graduated
1	2	3	4	5	1	2	3	4	5
MALES — 1931					FEMALES — 1931				
3 ...	605	833	— 228	— 27.4	3 ...	477	706	— 229	— 32.4
4 ...	491	976	— 485	— 49.7	4 ...	436	902	— 466	— 51.7
5 ...	2,965	1,080	+ 1,885	+ 174.5	5 ...	3,072	1,048	+ 2,024	+ 193.1
6 ...	537	1,143	— 606	— 53.0	6 ...	453	1,146	— 693	— 60.5
7 ...	555	1,167	— 612	— 52.4	7 ...	439	1,195	— 756	— 63.3
8 ...	798	1,151	— 353	— 30.7	8 ...	684	1,196	— 512	— 42.8
9 ...	307	1,095	— 788	— 72.0	9 ...	247	1,147	— 900	— 78.5
0 ...	2,897	1,000	+ 1,897	+ 189.7	0 ...	3,560	1,049	+ 2,511	+ 239.4
1 ...	280	865	— 585	— 67.6	1 ...	189	903	— 714	— 79.1
2 ...	565	690	— 125	— 18.1	2 ...	443	708	— 265	— 37.4
Total ...	10,000	10,000	+ 3,782	+ 37.8	Total ...	10,000	10,000	+ 4,535	+ 45.4

It has been already stated that the curve of an age distribution cannot in the nature of things be perfectly smooth and regular. This observation does not, however, apply with equal force to the curves under discussion, which represent the declarations of age of large numbers of persons grouped according to the unit digits of the ages declared. It is clear that all the persons returning ages with a final digit 7, say, are continuously moving into the next succeeding ages terminating with the digit 8, and that the survivors actually reach and pass that succeeding age. The argument applies, of course, to all ages in the series under consideration. The only biostatistical factors that could operate against the regularity of the curves are a heavy mortality selecting ages with a given unit digit 8, say, and a migration selecting ages with an assigned unit digit. Death and migration have, however, no preferences in regard to the unit digits of the ages of individuals composing a population that has passed the first year of life. Fluctuations in birth rates, while they contribute irregularity to the original curve of age distribution, have no marked effect on the curves showing the declarations of unit digits in ages. The stream of babies may change its volume but nevertheless remains a continuous stream so that the ageing surviving population is continuously replenished by births. It follows that the chances are very heavily against

Diagram showing the number of declarations
for each unit digit in proportionate
populations of 10,000 of each
sex, aged 28-72 years.

MALE

FEMALE

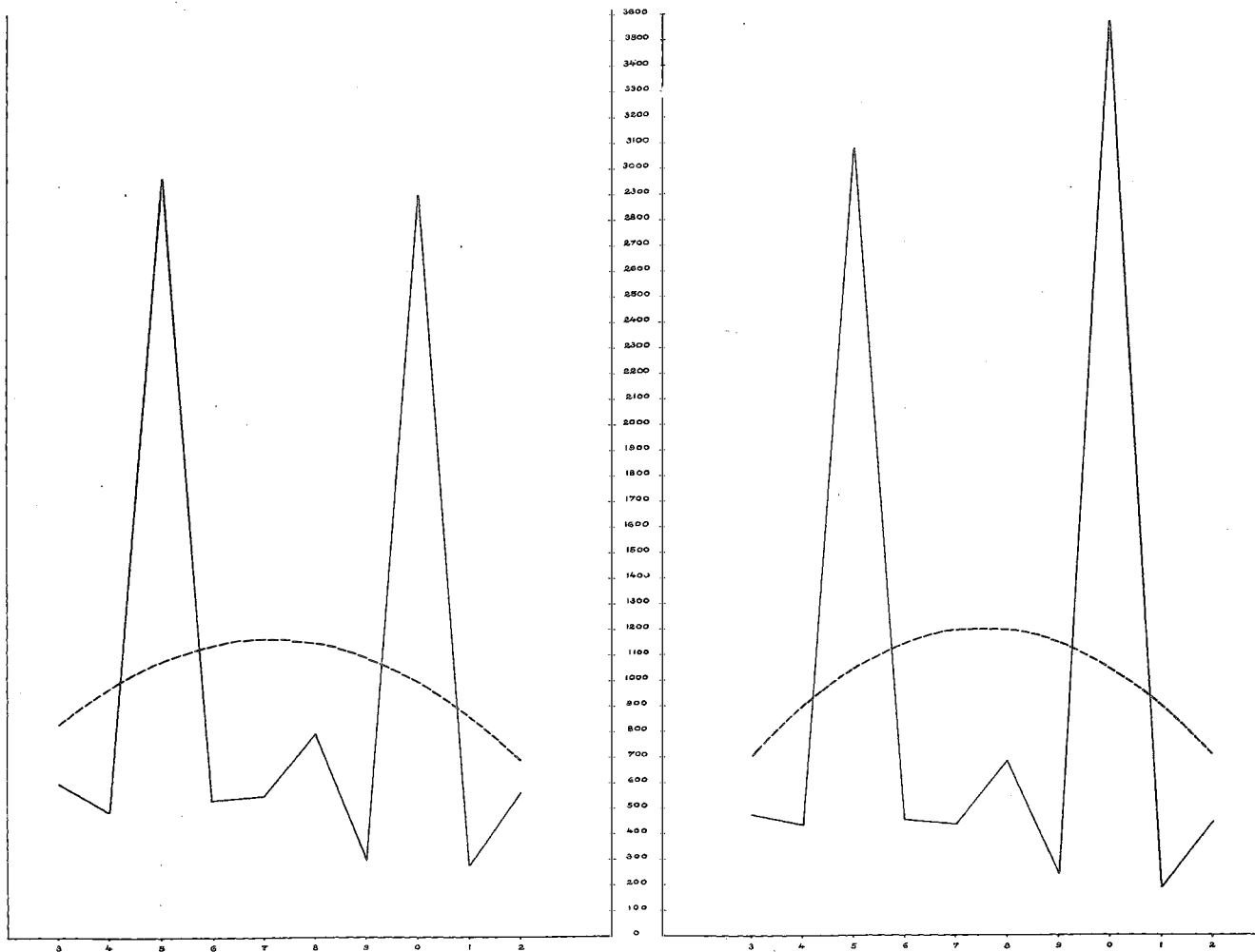


DIAGRAM No. 13

violent irregularities in these curves due to biostatistical agency. The inference to be drawn is that the irregularities in the curves are due to mis-statements of ages arising out of ignorance of the true ages.

In order to test the relative values of the errors of the declarations of unit digits it is necessary to pass a smooth, regular curve through the series of points such a curve being determined on the unadjusted data given in columns (2) of the table, that is, being fitted, as it were, to these data. The curve chosen is a parabola of the second order fitted by the method of least squares. It is in no sense, a curve of best fit, but it satisfies the conditions of that regularity which on the basis of the preceding argument, is to be expected¹.

Since the method of determining such a curve is rigidly mechanical no question of the personal bias of the operator need arise. These smooth curves give new values for declarations of ages with the given unit digits. These values are the graduated values and are found in columns (3) of the table given above. Given the original erroneous returns they may be taken to be a more probable series of declarations for ages with the specified unit digits. It will be seen at once from the difference columns in the table and from the diagrams that preferences for the multiples of 5 are so strong as to cause a deficiency in the return of all other ages. The preferences for the unit digit 8 and for other even units detected in the original age curve are now seen to be apparent only and not real: the returns at those ages are all deficient on what would be the most probably true returns. All that can be said is that males have returned least inaccurately at ages with unit digits 2, 3, 8, 4, 1, 6, 7, 9, 5 and 0 in that order; and that the similar series for females is 3, 2, 4, 8, 6, 1, 7, 9, 5 and 0. The fluctuations in regard to the declarations by females are, it will be observed, considerably greater in range than those in regard to declarations by males: but in both cases the errors are of great magnitude being about ± 38 per cent. of the total distribution for males and about ± 45 per cent. in the series for females. It is generally accepted in most countries that the ages given by females are more suspect than those of males, at any rate in regard to the type of error here discussed, and this view seems to be amply confirmed in Palestine.

90. The preceding analysis has been applied to the whole population returning ages between 23 years and 73 years and it is not proposed to apply the method to each of the several communities in Palestine. The following table however gives the comparison between the declarations for final digits by persons in each of the three main religious communities and similar declarations made by persons in various countries:—

DIGITS OF AGE RECORDED AT CENSUSES IN DIFFERENT COUNTRIES AND IN PALESTINE

Country	Year of census	Number per 10,000 aged 23-72 who have returned ages ending with the digits																			
		3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2
		MALES										FEMALES									
Belgium ...	1920	1143	1107	1064	1039	1014	985	940	923	915	870	1124	1100	1061	1038	1017	991	942	931	919	877
Germany ...	1925	1133	1111	1108	1046	1022	977	955	914	884	850	1096	1073	1088	1043	1024	991	973	938	906	868
England & Wales...	1921	1083	1064	1056	1038	1002	1020	982	998	868	889	1090	1077	1061	1033	989	1026	970	1015	846	893
Austria ...	1920	1132	1085	1070	1030	1002	971	963	945	916	886	1135	1089	1079	1033	1013	935	961	952	931	872
U.S.A. ...	1920	1071	1050	1174	1024	983	1041	926	1115	727	889	1089	1066	1195	1011	940	1055	903	1167	697	877
Canada ...	1921	1037	1021	1186	1006	936	1066	886	1179	752	931	1072	1059	1201	1015	931	1068	856	1193	707	898
Poland ...	1921	1069	1034	1247	1120	958	980	742	1255	792	803	1006	1001	1360	1068	850	950	651	1610	754	750
Palestine ...	1931	605	491	2965	537	555	798	307	2897	280	565	477	436	3072	453	439	684	247	3560	189	443
Moslems ...	"	437	312	3552	364	424	703	190	3391	161	466	321	270	3583	274	303	542	136	4125	106	339
Christians ...	"	959	869	2045	802	763	936	428	2036	438	724	686	616	2442	666	652	893	355	2750	308	632
Jews ...	"	993	907	1458	981	886	1043	638	1680	596	818	917	922	1589	977	816	1077	582	1984	424	712

¹ The curves in the diagrams are strongly reminiscent of a diffraction pattern in optics, and resemble the periodogram of a variable star whose varying magnitude is the resultant of two constituent oscillations of differing periods and a constant term. This may suggest the possibility of an elegant graduation of the original age curve provided that certain difficulties as to data, which are discussed later, are overcome.—E.M.

It will be seen that the Moslem declarations for the multiples of 5 are so numerous as to lead to saturations rather than concentrations, and that all the religious communities in Palestine have higher indices of concentration than are found in respect of the populations of the other countries named. As will be seen later, the standard of literacy among Jews generally is high, but it is depressed by the illiteracy of the oriental Jewish communities. It is therefore probable that their relatively high indices of concentration at ages which are multiples of 5 are due to the illiteracy of the eastern communities of Jews in Palestine. A further interesting comparison is given in the following table wherein the proportionate declarations in groups of three ages of which the central age is an even multiple of 5 are found :—

NUMBER PER 10,000 WHO HAVE RETURNED IN RESPECT OF THE FOLLOWING AGES

MALES

AGE	Belgium	Germany	England & Wales	Austria	U.S.A.	Poland	PALESTINE 1931			
	1920	1925	1921	1920	1920	1921	All religions	Moslems	Jews	Christians
9 ...	180	128	198	203	202	266	187	182	96	109
10 ...	188	196	199	205	210	307	292	320	102	120
11 ...	189	206	203	204	196	262	126	112	82	81
19 ...	206	208	181	205	168	199	90	65	76	84
20 ...	197	207	171	196	157	193	345	383	107	158
21 ...	190	202	169	187	171	199	98	60	94	110
29 ...	155	146	146	143	155	109	65	32	93	46
30 ...	150	139	150	144	178	138	432	474	166	147
31 ...	152	136	137	145	135	105	64	28	95	49
39 ...	143	128	143	141	135	86	35	24	36	23
40 ...	136	127	147	139	162	124	327	374	96	111
41 ...	139	122	132	138	101	85	25	16	27	19
49 ...	110	124	122	116	103	70	20	15	18	14
50 ...	114	117	124	115	131	124	246	277	76	95
51 ...	110	112	105	108	77	80	17	12	15	15
59 ...	80	80	78	84	64	44	11	6	13	10
60 ...	79	76	81	82	84	111	180	199	61	70
61 ...	77	74	66	77	49	54	13	9	11	12
69 ...	44	40	44	48	33	18	5	2	6	5
70 ...	43	36	40	42	38	54	103	112	36	43
71 ...	38	35	31	37	23	23	6	3	7	6

FEMALES

9 ...	174	118	178	186	205	246	164	153	95	101
10 ...	180	181	180	185	214	281	256	272	103	116
11 ...	180	190	183	185	201	238	107	88	79	75
19 ...	198	196	176	192	179	215	87	59	86	71
20 ...	189	195	173	188	181	259	394	437	127	167
21 ...	186	190	176	186	174	194	81	51	87	62
29 ...	158	170	159	158	154	103	57	27	83	39
30 ...	153	167	167	163	192	197	540	616	168	179
31 ...	153	163	146	163	132	109	45	21	65	32
39 ...	140	139	147	146	129	76	29	19	32	22
40 ...	136	135	154	147	162	172	427	492	112	162
41 ...	136	129	133	144	93	85	20	13	18	19
49 ...	108	121	118	111	92	61	17	10	18	13
50 ...	112	115	124	112	124	166	322	360	95	147
51 ...	110	108	99	107	67	75	12	7	13	13
59 ...	82	81	78	88	59	39	8	4	10	8
60 ...	83	78	84	85	81	134	253	274	87	123
61 ...	82	77	66	81	43	52	8	4	9	7
69 ...	52	45	50	55	32	17	5	3	7	5
70 ...	51	42	48	47	40	64	145	155	53	69
71 ...	46	41	38	46	22	23	5	3	4	6

It will be seen that the Jews give a less irregular series than either of the other communities but that, even in their case, the comparatively steady progression manifested in the other countries named is absent, its place being taken by a series of clusterings at ages which are even multiples of 5.

91. Since the excesses at digits 0 and 5 demand deficiencies at all other ages, the question of the relation of error to age is not susceptible of refined analysis. By massing ages together in 10-year groups with properly selected and defined class limits the opposing errors are neutralized. The problem of determining the proper class limits of a grouping by 10-year groups is, however, related to the problem of determining the class limits of the least unsatisfactory 5-year groups. It is clear from the table and the diagram that the excesses at ages which are the odd multiples of 5 are composed more largely of the deficiencies at the succeeding years having the final digit 6 than of the deficiencies at the preceding years having the final digit 4. The even multiples of 5, however, owe their excesses to the preceding ages having the final digit 9 rather than to the succeeding ages having the final digit 1. This is possibly in part a reflexion of a desire to return the age at next birthday when that age is near an even multiple of 5. These observations throw considerable light on the compression of individual age records into groups of adjacent ages. The age distribution is a function the value of which diminishes with advancing years: the excesses therefore at the age of 30 years, for example, are not balanced by the deficiencies at the succeeding ages of 31 and 32 years. The deficiencies at the age of 29 years are required to eliminate the effect of the preponderant returns at 30 years. The observation has equal force at the other ages of life which are even multiple of 5. Consequently a decennial grouping such as 20-30, 30-40 . . ., etc., is liable to considerable distortion. The tendency of a decennial grouping 25-35, 35-45 . . ., is in the opposite direction but is not nearly so strongly marked as in the grouping by even multiples of 5. The best decennial grouping for Palestine is undoubtedly that which includes both tendencies in the same group in such a manner that neither is dominating at either terminus of the group. Hence the best decennial grouping is 23-33, 33-43 . . ., etc.

Grouping by quinary or 5-year groups is best arranged on the system 23-28, 28-33 . . ., etc., but the group containing the odd multiple of 5 will be somewhat deficient while that containing the even multiple of 5 will exceed the correct total in the group. The conventional grouping five years, 15-20, 20-25 . . ., is the most unreliable that could be chosen for Palestine since it leads to systematic cyclic or wave distortions throughout the series of age distributions required for any purposes, these distortions being due primarily to the failure to balance, as far as possible, the deficiencies at the unit digit 9 with the excesses at the succeeding unit digit 0.

It would appear, therefore, that in vital statistics concerned with age Palestine would do well to compile data in two systems; first, that which suits its own characters, namely a system of age grouping such as:—

0-	13-18
1-	18-23
2-	23-33
3-8	33-43
8-13	etc.;

and, secondly, that which conforms to international practice, namely a system of grouping such as

0	10-15
1	15-20 or 15-25
2-5	20-30 or 25-35
5-10	etc.;

provided that, in the second case, it be made clear in public statistics that the emphatic preferences for even multiples of 5 give wave distortions to the various distributions displayed.

The following table illustrates the grouping of the population aged 23 years and over by quinary groups beginning with unit digits 3 and 8 respectively :—

DISTRIBUTION OF THE POPULATION IN QUINARY AGE GROUPS BY SEX AND RELIGION.

RELIGION	MALES										FEMALES									
	23-28	28-	33-	38-	43-	48-	53-	58-	63-	68-	23-28	28-	33-	38-	43-	48-	53-	58-	63-	68-
Moslems (Per cent.)	30326 (100)	27223 (90)	20998 (69)	19163 (63)	13272 (44)	13387 (44)	6793 (22)	8810 (29)	4525 (15)	4649 (15)	31632 (100)	30082 (95)	20645 (65)	21459 (68)	12240 (39)	14495 (46)	5969 (19)	10358 (33)	4004 (13)	5891 (19)
Christians	5147	3724	2660	2245	1666	1776	1206	1201	785	667	4129	3675	2862	2781	2111	2172	1343	1569	929	898
Jews	11348	10380	6020	4709	2846	3093	2123	2276	1473	1305	11135	9335	5387	4537	3042	3313	2492	2686	1541	1260
Palestine	47294	41763	29997	26408	17995	18436	10257	12428	6869	6705	47379	43512	29205	29116	17586	20188	9715	14765	6557	8438

It will be seen that, even for the Moslems among whom the unbiased cyclical errors are exceedingly emphatic, this grouping gives a more regular sequence through the ages in greater correspondence to the law of distribution of population through the ages outside the range of childhood. The regularity of the sequence is fairly well established for the males up to the age of 58 years, but is not so good in respect of the females. It is clear that, even on this system of arrangement, decennial grouping is desirable.

92. Displacements of fundamental character due to deliberate mis-statement of age or omission to make a return of age at the enumeration cannot, as a rule, be identified from the age curve itself, and, consequently, cannot be adjusted since the law governing them is not explicitly revealed. Apart from the general tendencies among all peoples to declare among males in early adolescence and early maturity a slightly higher age than the true age, and to declare among unmarried females a slightly higher age in early adolescence and a lower age in maturity, and among the aged of both sexes to declare exaggerated ages in the latter period of life, there is not great distortion in the Palestine curves due to deliberate mis-statement of age. Among European peoples the idea expressed by the phrase "Too old at forty" undoubtedly depresses the returns between 40 years and 50 years in the case of the males. That tendency is not perceptible yet in Palestine because it is confined to the relatively small class of those who form the "black-coated professions". The errors due to returns of ages unknown or to deliberate omission are very small. The absolute figures are given below :—

Deliberate or
biased mis-
statements and
omissions.

AGES NOT RECORDED.

Religion	Number		
	Persons	Males	Females
All religions	449	286	163
Moslem	123	67	56
Christian	19	10	9
Jew	306	208	98
Others	1	1	...

The total loss due to the combination of errors caused by complete ignorance of age or deliberate omission to make the required return is not as great as 0.05 per cent. of the total population, and nearly three quarters of this loss is due to a

refusal of certain Jews under the influence of political motives to give the information in respect of themselves. In most of such instances it was possible for enumerators to obtain information as to the sex and conjugal condition of these passive resisters either through the proceedings taken in the magistrates' courts or through other sources. It was, however, difficult for enumerators to obtain information as to the ages of members of this small group of people.

There are two methods for disposing of errors of this kind. By the first method the persons omitted from the age returns are distributed over the whole series in proportion to the returns given at each age. By the second method the persons forming this group are excluded from the analysis of the returns and are regarded as a class by themselves and used as a measure of the thoroughness of the work of enumeration. Since the great proportion of the omissions was caused by a group of people of a definite political party, it was not desirable to distribute such persons over the whole series of ages, since they undoubtedly fall in great part within a group of those in comparatively late adolescence or early maturity. The second method has therefore been adopted in regard to this special class throughout the statistics relating to age, and the results have been calculated on recorded ages only. Since the group is so small their omission from the proportional tables has no significant effect on the results.

Errors of omission or deliberate mis-statement.

93. In the following examination comparison is made between the enumerated populations at the annual age periods between birth and four years of age inclusive, and the numbers expected by survivorship from the births of the period 1927-1931, precaution being taken to keep the errors in the method of tracing the survivors down to a minimum so far as is possible. If there were perfect registration of births and deaths, that is to say if all births and all deaths at the various ages were recorded accurately, and if the registration of migrants at each age were also perfect then, except for variations due to short lapses of time between the events and the registrations, there should be complete correspondence between the population actually enumerated and what may be termed the population of expected survivors at any assigned age. A discussion concerning the registration of births and deaths is given in a later section of this chapter, and it is sufficient to observe here that, unless deaths by annual age periods are recorded in central registers, there must be an element of guess-work in any computations from the data arranged by coarser groupings designed to measure the effects at each age. For example in considering the surviving population in the age group 0-5 years at the date of the census 1931 it is necessary to arrange the data year by year from the beginning of 1927*. Then the surviving population aged 0-5 years at the end of 1931 is the sum of the populations surviving in 1931 who began life in the several years 1927, 1928, 1929, 1930 and 1931. Now the surviving population in 1931 due to the increment of 1927 may be set out in the following manner:—

$$\begin{array}{rcl}
 \text{(Survivors)} & = & \text{(Births)} \\
 \text{1931} & & \text{1927} \\
 \text{1927} & - & \text{(Deaths)} \\
 & - & \text{(Deaths)} \\
 & - & \text{(Deaths)} \\
 & - & \text{(Deaths)} \\
 & - & \text{(Deaths)} \\
 & + & \text{(Difference between immigration and emigration)} \\
 & & \text{1927-1931.}
 \end{array}$$

Similar equations establish the number of survivors from populations born in 1928, 1929, 1930 and 1931.

* The loss due to omission of consideration of the latter half of November 1926 and December 1926 is not greatly different from the gain due to including the data of half November 1931 and December 1931.—E.M.

The statistics of recorded births are given annually in the Annual Reports of the Department of Public Health. The statistics of recorded deaths are given in the same publications but are arranged in the following age groups:—

- (i) 0-1 month.
- (ii) 1 month—1 year.
- (iii) 1 year—2 years.
- (iv) 2 years—5 years.

Applying these groups to persons born in 1927, the losses by 1931 due to deaths in 1927 and successive years are the numbers given in the following scheme:—

Losses in 1927 at age 0-1 years	
= Losses 0-1 month	
+ Losses 1 month to 1 year	(Returns of 1927)
Losses in 1928 at age 1-2 years	
= Losses 1 year—2 years	(Returns of 1928)
Losses in 1929 at age 2-3 years	
= Losses which are part of losses aged 2-5 years	(Returns of 1929)
Losses in 1930 at age 3-4 years	
= Losses which are part of losses aged 2-5 years	(Returns of 1930)
Losses 1931 at age 4-5 years	
= Losses which are part of losses aged 2-5 years	(Returns 1931)

Similar equations apply to the birth populations of the years 1928, 1929, 1930 and 1931 save that for the population born in 1930 the returns of deaths in 1931 in age group 2-5 years have no relevance since, in that age group all the deaths occur in the population born in the years 1927, 1928 and 1929; and like changes are made in respect of the relations between other years of birth and corresponding years of death. It will be appreciated that the element of guesswork is introduced when estimates are made of the proportions of those dying between the ages of 2-5 years at the ages 2-3, 3-4, and 4-5 years respectively. Fortunately, the annual number of deaths in the age period 2-5 years is small, varying roughly from 2,000 persons to 2,500 persons in each of the five years considered, so that whatever proportions may be taken, the differences in the absolute figures of deaths at each age within this period will be relatively small. For purposes of this examination the proportions chosen for deaths in all age groups 2-5 years for each of the five years are assumed to be two thirds at the age 2-3 years, one quarter at the age 3-4 years and one twelfth at the age 4-5 years. The following table gives the results in applying this scheme:—

STATEMENT SHOWING BY RELIGION DIFFERENCES BETWEEN THE ENUMERATED POPULATION AND THE POPULATION OF EXPECTED SURVIVORS AGED 0-5 YEARS.

AGE	*ALL RELIGIONS			MOSLEMS			CHRISTIANS			JEWS		
	Enumerated population	Expected survivors	Survivors less enumerated	Enumerated population	Expected survivors	Survivors less enumerated	Enumerated population	Expected survivors	Survivors less enumerated	Enumerated population	Expected survivors	Survivors less enumerated
1	2	3	4	5	6	7	8	9	10	11	12	13
0 - ...	36,893	38,396	+1,503	28,462	29,790	+1,328	2,903	2,868	- 35	5,149	5,087	- 62
1 - ...	29,820	33,940	+4,120	23,012	26,016	+3,004	2,213	2,655	+ 442	4,309	4,929	+ 620
2 - ...	35,563	28,818	-6,745	27,771	21,528	-6,243	2,616	2,347	- 269	4,799	4,630	- 169
3 - ...	34,240	29,140	-5,100	26,797	21,849	-4,948	2,537	2,452	- 84	4,582	4,613	+ 31
4 - ...	32,086	24,333	-7,753	24,666	17,624	-7,042	2,421	2,162	- 259	4,668	4,290	- 378
0 -5...	168,602	154,621	-13,975	130,708	116,807	-13,901	12,690	12,485	- 205	23,507	23,549	+ 42

*Includes Druze and other religions.

It will be seen that the population of expected survivors in this age group as derived from the annual returns of births and deaths is smaller than the enumerated population by nearly 14,000 persons, and that this deficiency is due almost entirely to the Moslem population, both the Jewish and the Christian populations showing a correspondence that is almost exact to a degree far beyond normal expectations. Dealing, for the moment, only with the total populations in age groups 0-5 years this deficiency may be due to any combination of the following causes :—

- (i) Since the population is increasing by births the number of births in the latter half of November and in December 1931 is a little greater than the similar number in 1926 so that the total expected survivors is somewhat larger than it should be.
- (ii) Since the population is increasing by immigration part of the excess of the enumerated population over that of expected survivors may be due to the immigration of children who are between the ages of birth and 5 years at the date of the census. The effect due to this cause should be more striking for the Jews than for the Moslems, whereas the reverse is the case, since for Jews the expected number of survivors exceeds the number enumerated.
- (iii) There is always a lag between the occurrences of births and the occurrences of the registrations of those births, so that at any time the number of registered births, is smaller than the number of actual births. This lag is, of course, carried from year to year, but may become a little larger with advancing years when the number of births is steadily increasing. The difference due to lag, however, must be very small.
- (iv) There may be defective registration of births particularly among Moslems. That this is probable is evidenced by the fact that the births registration authorities maintain special registers for recording births not recorded at due time but notified in a year subsequent to that of birth. In most cases these late registrations are not included in the annual returns of births so that in their respect alone the number of expected survivors should be larger than it is. This indeed accounts for 2,351 born in the years 1927-1931, subsequently registered and not included in the annual returns of births for the period. There is, therefore, a very strong probability that the number of expected survivors is less than it should be by the number of survivors from births that are not registered.
- (v) There may have been an inflation among the Moslems of the number of persons between the ages of birth and 5 years of age. It has not been possible to prepare by sex these statistics of differences but, as will be seen from the subsequent discussion on age distribution, there is some perplexity in regard to the proportion of females between 0 and 3 years and 3 years and over. There is also a noticeably large difference between the number of females aged 5-10 years and those aged between birth and 5 years, a difference which is considerably greater than that manifested in the age distribution of the males in the same periods. There may, therefore, have been some understatement of the age of girls aged 5-10 years who have been returned as aged between birth and 5 years of age. On the other hand, as will be seen later, there may be a real social tendency on the part of the Moslems to increase the female birth-rate in order to reduce the undue masculinity of their population. Seeing that the female population is most markedly less in number than the male population, it is not even a plausible hypothesis that there has been an overstatement of the number of females returned. Deliberate group mis-statements of age, therefore, have as their main effect alterations between the proportions returned in adjacent age groups.

There is a distinct suggestion that this represents the facts in regard to females returned at ages 0-5 years and 5-10 years, the number in the earlier group being enlarged at the expense of the number in the later group. There is, however, no direct evidence on the point, and the numbers in both groups may have a high degree of accuracy.

The discussion on the total age group 0-5 years may be summed up in the following terms :—

- (i) The differences between the population enumerated and the population of expected survivors aged 0-5 years are not appreciably affected by migration, since the effect due to this cause would be manifested in the Jewish population where it is absent.
- (ii) The differences may be slightly affected by the loss of one half November and of December in 1926 and the gain of a similar period in 1931.
- (iii) The differences are slightly affected by a lag increasing with years between the number of actual births and the number of births recorded.
- (iv) The differences may be the result of a failure to register some births, particularly those of females. Of the general truth of this proposition there is direct evidence.
- (v) The differences may be partly caused by an understatement of the age of girls actually aged 5-10 years with the effect of transferring a number of girls to the age group 0-5 years from the next successive group. It would be unprofitable to extend the investigation to the age group 5-10 years in order to test this hypothesis, because it is known that prior to 1926 the registration of births and deaths was decidedly defective.

In order to assess the value of these hypotheses it is necessary to examine the figures for each year of age.

A very interesting discussion of the type of differences under consideration is given in the General Report of the Census, England and Wales, 1921, where it is shown that the expected population of survivors is greater than the enumerated population at all ages as from birth to 6 years inclusive. The phenomenon in England is exactly the reverse of that in Palestine when the total groups are considered, and the discussion in the English report is based on the belief for very good reasons that the population of expected survivors in these early years is more probably the true population than that enumerated. The writer of the report examines the plausibility of the theory that the differences in England are due to the return of age as at next birthday instead of last birthday. He points out that on this theory there is ground for expectation that, while it is natural for people to think that when they are within a month or two of a birthday they are more accurate in returning age at next birthday than at last birthday, which to them is completely out of date, this form of error would not be confined to the years of infancy and that, therefore, the error due to this cause would be prominent only in respect of children under one year of age, since at any subsequent age the loss by transfer to a higher age would be compensated by the gain by transfer from the age next below. He then shows that this relationship is not valid through the ages, and is forced to conclude that there is a real and significant omission of young children from the enumerated population. In Palestine the relationship between the enumerated and the expected population for the whole age group 0-5 years is exactly the reverse : but detailed examination of the returns for Palestine given above for each of the five years reveals that the expected survivors exceed the enumerated population at ages under one year and between one year and two years for the whole population and for the Moslems : for the Christians and Jews the expected survivors are fewer at the age under one year and are more numerous at the age between one and two years. With the exception of Jewish children aged between three and four years, the expected survivors in all communities are markedly fewer in the ages between two years and five years. Now there cannot have been fewer births and deaths than those actually recorded and there may well have been more. Since the total of ex-

pected survivors between the ages of births and five years is less than the total enumerated population at those ages for the Moslems it follows that omissions to enumerate young children between birth and two years of age at the census are heavily overweighted by omissions to record the births of children aged 2-5 years at the time of the census.

Hence there are two sources of error revealed :—

- (i) An omission on the part of Moslems to have a small proportion of young children enumerated.
- (ii) An omission on the part of Moslems prior to the census to register all births.

The former error applies particularly to children aged under two years ; the latter error applies to children in the whole group aged under five years and is explicitly revealed in the age group 2-5 years. These errors on the part of the Moslems govern the errors revealed by the returns of the whole population.

The errors on the part of the Christians and the Jews are remarkably small. The deficiencies on the population of expected survivors aged under one year indicate a failure to register births, but may also be due to the lag occurring as a result of the lapse of time between the time of birth and the time of registration. The excesses at the age of one year indicate for them as for the Moslems a failure to enumerate the correct number of children at that age. Part of this error is, however, undoubtedly due to an avoidance of the declaration of one year of age¹, so that a proportion of children aged between one year and two years have been declared as aged between two years and three years. In the case of the Jews there may have been a failure to enumerate a few children aged three years to four years, or there may have been a tendency to declare the next birthday and to give the age of four years to such children. A proportion of all the deficiencies at four years may be due to a specific preference to declare the age of five years.

This detailed analysis by annual periods leads to the following conclusions :—

- (i) The Moslems have omitted to enumerate a small proportion of young children under the age of two years : the Jews and the Christians have omitted to register a very small proportion of births in due time, and may have omitted to enumerate a small proportion of children at the age of one year.
- (ii) All communities have failed to some extent to register all births occurring since the beginning of 1927. This is explicitly revealed in the differences between the population enumerated at the ages two to five years and the population of expected survivors in those ages. It may be inferred that, although registration of births is rapidly improving, there will continue to be omissions in the annual registers for some time to come². Having regard to all the difficulties the degree of precision of registration already reached is little short of remarkable.
- (iii) A very small proportion of the errors may be due to the effects of immigration of young children aged two years and over.
- (iv) A very small proportion of the errors may be due to a tendency to declare age at next birthday rather than at last birthday. The sudden fluctuations in the difference columns between the ages of two years and three years tend to show that this source of error is negligible.
- (v) Generally the error due to omission of young children from the returns is remarkably small. The weight of this type of error may be judged

¹ See paragraph 85 above.

² The figures indicate a small general improvement in birth registrations. It will be shown later that the better registrations of births may be responsible for an illusion of a steadily increasing birth-rate, and that for the last five years the birth-rate may have been declining.—E.M.

from the following statement taken from the Report of the Census England and Wales 1921 :—

Age	1921		
	Enumerated (000's)	Survivors (000's)	Survivors less enumerated (000's)
1	2	3	4
0 -	795	819	24
1 -	826	848	22
2 -	552	555	3
3 -	537	544	7
4 -	611	616	5
0 - 5	3,321	3,382	61

These figures and those of Palestine compared on the basis of the population of expected survivors give the following table :—

Age	Percentage ratio of differences between "survivors" and "enumerated" to population of expected survivors	
	England and Wales 1921	Palestine 1931
1	2	3
	%	%
0 -	+ 2.9	+ 3.9
1 -	+ 2.6	+ 10.5
2 -	+ 0.5	- 23.4
3 -	+ 1.3	- 17.5
4 -	+ 0.8	- 31.8
0 - 5	+ 1.8	- 9.0

It will be seen that the relative errors in Palestine are considerably higher than in England, as was to be expected, and that the character of the errors in Palestine is derived principally from the fact that in accuracy the enumerated population in these ages is superior to the population of expected survivors, whereas in England the population of expected survivors is more accurate than the enumerated population.

94. The following comparative table¹ illustrates the relative magnitude of error due to omission of young children in the enumeration records in Palestine compared with similar errors in certain European countries :—

COMPARATIVE TABLE SHOWING THE DIFFERENCE IN CERTAIN COUNTRIES BETWEEN PERSONS ENUMERATED AT A CENSUS AND EXPECTED SURVIVORS AT THE DATE OF THE CENSUS AGED UNDER ONE YEAR.

Country	Year of census	Persons enumerated at ages 0-1 year	Persons born in preceding year	Persons aged 0-1 year dying in preceding year	Expected survivors aged 0-1 year at date of census (4) - (5)	Difference between enumerated population and expected survivors	
						Absolute (3) - (6)	Percentage on population of births
1	2	3	4	5	6	7	8
Germany... ..	1910	1,663,280	1,924,778	187,691	1,737,087	-73,807	- 3.8
Holland	1920	183,344	192,987	9,405	183,582	- 238	- 0.1
Austria	1910	789,705	923,545	128,307	795,238	- 5,533	- 0.6
Sweden	1920	130,824	138,753	6,398	132,355	- 1,531	- 1.1
Palestine	1931	36,893	46,011	7,826	38,185	- 1,292	- 2.8
Moslems	—	28,462	36,668	6,876	29,792	- 1,330	- 3.6
Christians	—	2,903	3,310	442	2,868	+ 35	+ 1.1
Jews	—	5,149	5,539	452	5,087	+ 62	+ 1.1
Others	—	379	494	56	439	- 59	-11.9

¹ The figures are quoted after re-arrangement from Franz Hiess—*Methodik der Volkszählungen*, Jena 1931, page 67.—E.M.

The relative error in Palestine appears to be of about the same magnitude as that in Germany, and may be taken to illustrate the remarkable thoroughness of the enumerators and the willing co-operation of the general public in the enumeration.

The most probable population aged 0-5 years may be taken to be the sum of the populations of expected survivors aged 0-2 years, augmented by an estimated number of births not registered in 1930 and 1931, and of the populations enumerated between the ages of 2 and 5 years. If it be assumed that the registrations of births are defective at the present time by about 2,000 per annum¹, the most probable population aged 0-5 years is about 178,000 persons as against 168,000 persons enumerated.

GRADUATED AGE DISTRIBUTIONS.

General.

95. The discussion just concluded on the errors in the returns of ages suffices to show that, for many practical purposes, the crude returns by annual periods can form no basis for administrative activity. In such matters, however, Palestine, having administrative and social organization of elementary kind, does not require the refined accuracy of highly organized states. Annual age-grouping is important in Palestine principally for the purposes of determining educational policy on its material side, and then only between the ages of five to fifteen years. On the whole, the inaccuracy of the returns between two years and fifteen years is not of such high order as elsewhere in the age distributions, so that no great mistakes in the provision of accommodation for school children of the coming generations would be made if calculations were based on the crude returns. Furthermore, since elementary education is not compulsory in the country but is given according to the financial resources available, the number of children for whom school accommodation is to be provided will, for a long time, be greatly smaller than the number of children who would receive education were it compulsory. Similar remarks apply with equal force to other public activities and, on the ground of administrative convenience alone, it would not be necessary to adjust the age distribution by annual periods, compression of the individual ages into five-year and ten-year groups tending to eliminate errors and sufficing for most practical purposes. On the other hand it is not possible to elicit from the crude age returns the essential characters of the populations of Palestine, since the violent fluctuations in the curve conceal them. No proper study of mortality is possible on so erroneous a crude distribution; and life-tables of reliability cannot be constructed on any age distribution lacking a high degree of probability. It is not intended to suggest by the preceding observation that life-tables constructed for so small a population could or would be used for the practical purposes of life insurances and endowments. There is an inherent instability in small populations which vitiates the general principles upon which life insurance is conducted. Those principles are determined on the more stable features of large aggregates of population, general, special or sectional. A life table, however, is the most practical means of measuring the force of mortality at different ages of life, and the defect due to an element of instability founded upon the smallness of the aggregate population leads merely to a periodic need of changing the life table, an operation which can be done for or by the sociologist at any time, such a change having the advantage that it does not disturb the normal course of the business of life insurance² conducted on large stable aggregates of population. The basis upon which life-tables are constructed is a reliable age distribution by annual periods, or, for the purposes of the study of infantile mortality, by months during the first year of life; and it will be abundantly clear that the crude age returns at the census cannot be used for such a purpose. In order to obtain a more or less reliable basis the numbers returned at each age are

¹ According to the table the defects are greater than 2,000 per annum.—E.M.

² Life tables will not for various reasons be prepared for this Report. It is my hope that I shall have opportunity to construct such tables before the next census merely to enable research to be undertaken as to the character and force of mortality in Palestine.—E.M.

subjected to a process of adjustment known as graduation. Graduation gives, on the basis of admittedly erroneous returns, a more probable distribution of the population by age. The degree of probability of the resulting distribution depends on the degree and the character of errors in the original returns and on the method of graduation employed. It is not asserted that, if persons had returned their ages correctly at the census, the crude distribution so obtained would be identical with the graduated distribution obtained from the erroneous returns. No more is asserted than that, given the erroneous returns, the graduated distribution derived from them is less unlikely than the crude distribution upon which it is based.

The curve of a graduated distribution is more or less smooth according to the character of the graduation. If the adjustment be too powerful the significances of the age distribution are concealed as effectively as they were in the curve of the crude distribution. The whole distribution is then idealized and loses much of its interest. If the graduation is weak then the curve of the distribution shows systematic distortions at the cyclic errors, such as the preferences in the age declarations for even multiples of 5. A good graduation for census purposes preserves essential characters and removes the graver disturbances due to unbiassed error. It must be borne in mind that, even if the returns of age were complete and accurate, the resulting age series would not be perfectly regular. The existing population at any time is the resultant of a continuous sequence of births, which in itself shows variations from year to year. The forces of mortality and migration operate on this sequence: not only are these forces variable from age to age in the distribution, but they vary from year to year in their incidence on the same ages. Hence a truly characteristic age curve should show the effects representative of the special characters of these forces.

The main difficulty in the problem lies in the fact that the figures of a single census, even if accurately returned at each age, will not give any trustworthy indication of the forces of mortality operating at each period of life. The usual plan is to take the figures of two successive censuses together with the number of births, the number of deaths at each age, and the number of immigrants and emigrants at the different ages during the intervening intercensal period, as these are recorded in the registration books. Unfortunately, while the registration of births and deaths has shown a remarkable improvement during the last five years, no central registers have been maintained either for births by sex, or for deaths by sex, or for deaths by annual age periods; and it seems doubtful whether it will be possible to obtain some of this information in regard to deaths in respect of the past decennium¹. It is impossible to obtain details of a requisite fineness in respect of migrants, although this defect is not so serious as the lack of information of deaths by annual ages, since some allowances can be made for immigration and emigration at certain periods of life without serious risk of great error². It is essential to have this type of information because an age distribution is a history of the past century which, in certain aspects such as epidemics, famines, prosperous harvests and the like, it reflects. It follows, therefore, that the graduation of the age distribution for Palestine at the census 1931 will suffer from the defect that it cannot be corrected in certain essential elements.

¹ Steps are being taken to improve the system of collating the information given at the time of registering births and deaths. Clearly it would be inappropriate, from every point of view, to publish annually the detailed tabulations of deaths by annual age periods. The standard international classification of age periods for death returns is all that can be expected in publications, but these classifications should be formed on the basis of central registers in which the detailed information is tabulated to be available for refined analysis when necessary.

Since the paragraph and footnote above were written, the Department of Public Health have centralized the records of births and deaths since 1923, and, while I have not been able to take advantage of this compilation for purposes of the present section, I have utilized it for the discussion on vital statistics given later and for the discussion of sex given in Chapter VI.—E.M.

² While it is usual to demand details of immigrants it is not customary to exercise the same inquisitorial faculty in respect of emigrants many of whom are ordinary travellers. As has been explained in Chapter III (Birthplace) it used to be practicable for one State to ask other States to give the latest returns in respect of certain characters of its own emigrants, but, owing to the growth of rapid communications of the modern world, such returns can never be highly reliable.—E.M.

96. The method of graduation used was arithmetical in character between the ages of ten and sixty five years, and graphical in the terminal groups. That part of the discussion of error concerned with biased mis-statement will have shown that there are certain perplexities in the distribution of the age group 0-10 years; and the very high degree of error in returns of old ages combined with a graphical method of graduation introduces a degree of uncertainty in the ages exceeding 75 years, which is higher than that in the central part of the distribution. Nevertheless it will be seen that the resulting curves, while too regular to represent an actual distribution, reveal in striking manner the general characters of the age distribution of the various populations in Palestine.

The graduated distributions.

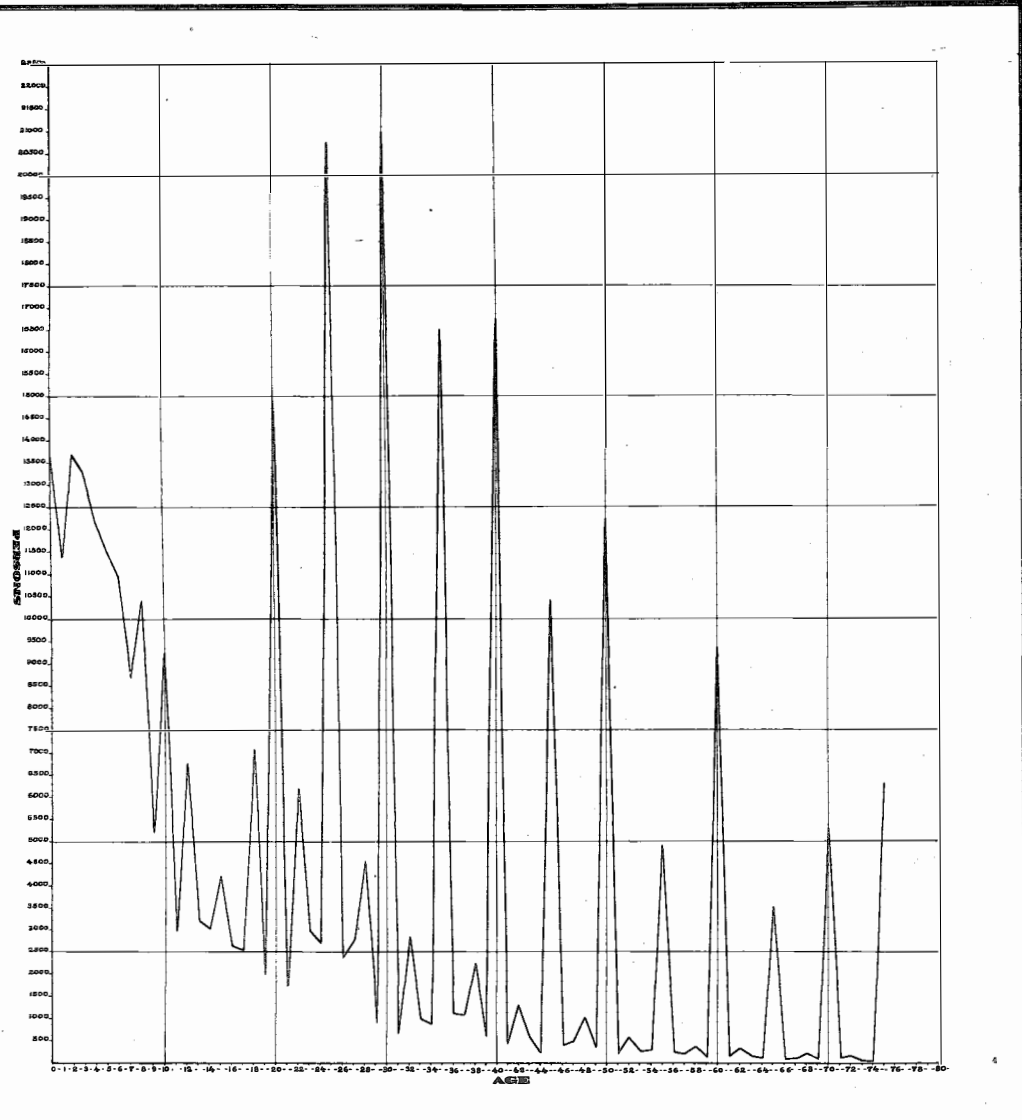
97. The actual graduations were performed on the total populations, Moslem, Christian and Jew, returned at each age, no account being taken of persons whose ages were not recorded. The graduated distributions thus obtained are given in Subsidiary Table No. I. To facilitate comparison these distributions were then adjusted to populations of one hundred thousand of each sex for Moslems and fifty thousand of each sex for both Christians and Jews.

These distributions are illustrated in Diagrams Nos. 14, 15 and 16 wherein the crude and the graduated age distributions are shown. The following points are worthy of attention in studying the diagrams. First, since the age constitution of a population at any time is the resultant distribution from the effect of factors operating over practically the whole of the preceding century, the interpretation of the curves is more readily apprehended if they are studied from right to left. The population ranges from age 0 to ages round about one hundred years so that the numbers in the several age groups in 1931 are survivors of the births that have occurred since the year 1831 and it is apparent, therefore, that to the variations in the numbers born in successive years and in their subsequent rates of survival is mainly due the moulding of the present age distribution. Secondly, the number of persons shown as at age 0 is the number of persons returned at the census as being of age under one year: that is, on the average they are about six months old. The left hand termini of the curves on the vertical axis, therefore, do not give the numbers of persons born in the year preceding the census but only the numbers of those born who were survivors at the date of the census. These preliminary observations assist discussion of details of the actual distribution.

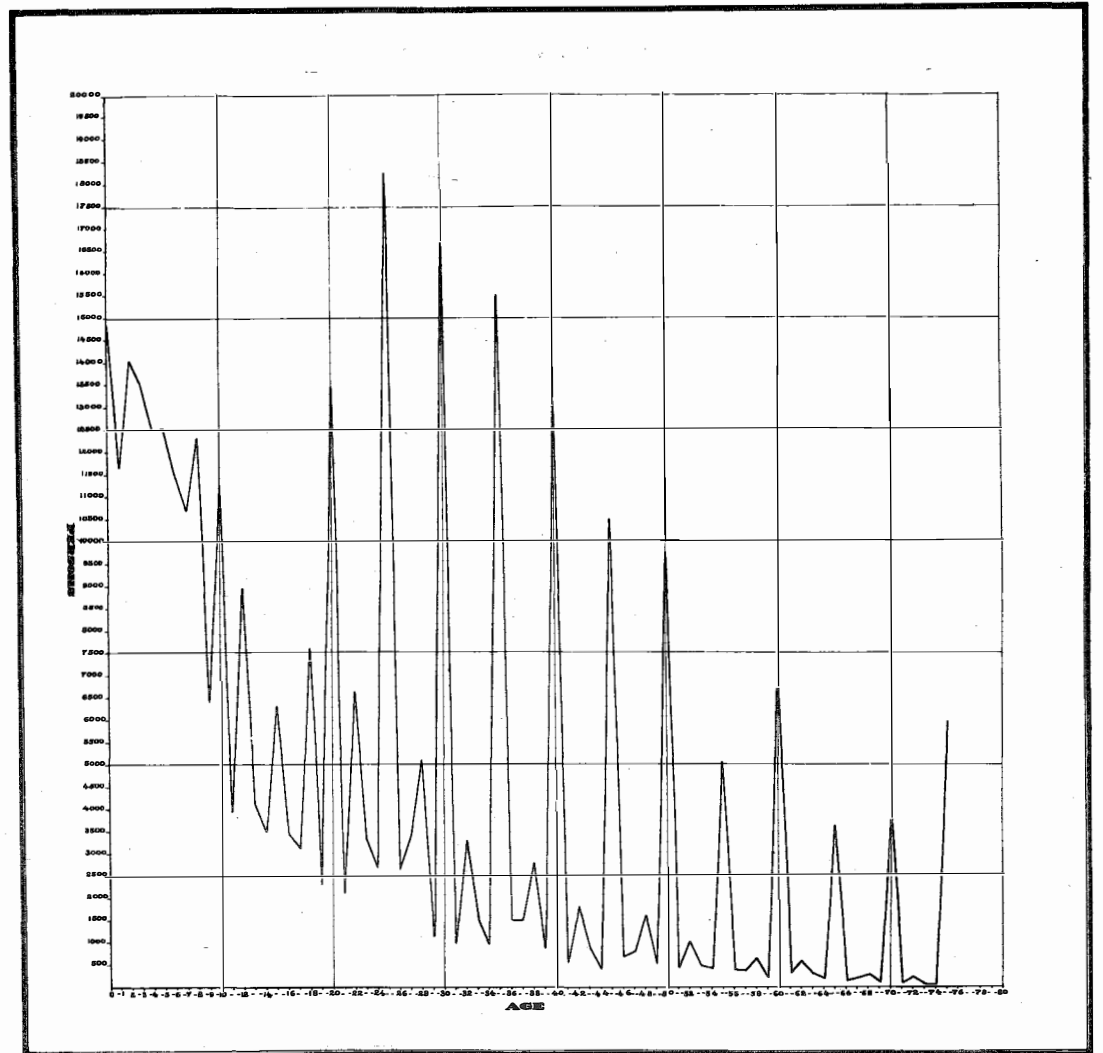
(a) Moslems.

98. The principal features of the Moslem distribution are, first, a trough for both sexes the lowest points of which are found at the ages of 15 to 16 years: secondly a crest for each sex the peaks of which are found at the ages of 24 to 26 years. There is a very steep decline in both curves from the age 0 to the age 15 years: and a fairly steady decline from about 25 years until the end of life. At the age of 32 years there is a perceptible change in gradient in both curves suggesting that from the year 1899 to 1913 the birth rate was tending to be higher than in the preceding years of the 19th century, since it is improbable that there was in those years a change in the force of mortality affecting both sexes at the same ages. The phenomenon of a rising birthrate in the years before the war was noticed in the Census Report for Bengal 1921 wherein it was suggested that population was in those years preparing unconsciously for the world war which caused enormous wastage of human life in the reproductive ages of mankind. The comparison between the curves for the two sexes is interesting. On the average 107 Moslem male babies are born to every 100 female babies. Yet at the age 0-1 year the proportion of female babies among females at all ages is higher than the similar proportion for males. It is, of course, well known that infantile mortality is always heavier among boy babies, but, seeing that the sex ratio at birth is strongly in favour of the males, it might have been expected that the proportion of male babies aged 0-1 year among males at all ages would be higher than the similar proportion for girl babies. The relative proportions, however, change abruptly at the age of two years after which the proportion of females is considerably less than the proportion of males until the age of 18 years is reached. It would appear

MOSLEMS
ACTUAL AGES RETURNED AT CENSUS
FEMALES



MOSLEMS
ACTUAL AGES RETURNED AT CENSUS
MALES



AGE DISTRIBUTION PER 100,000
MOSLEMS

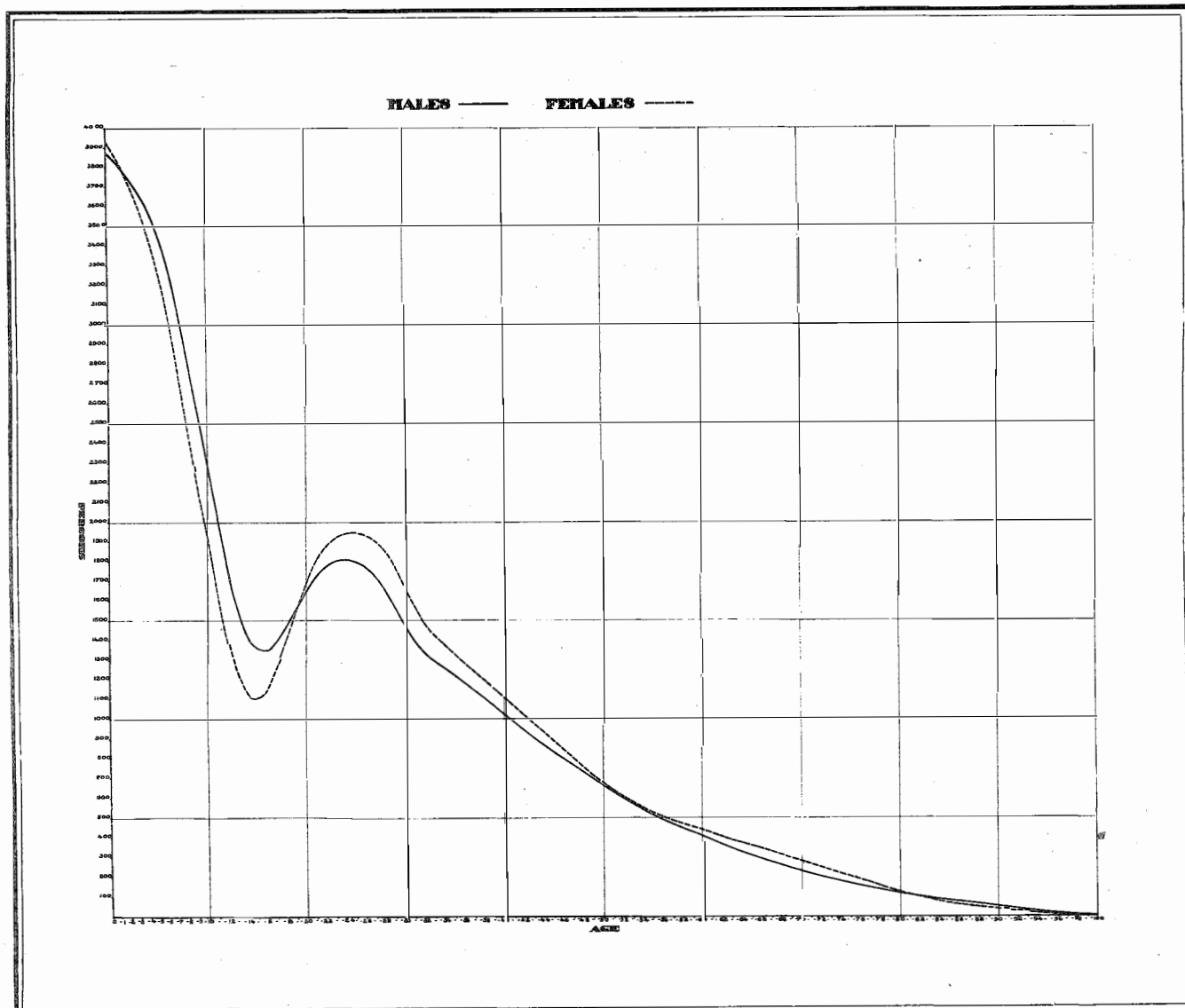
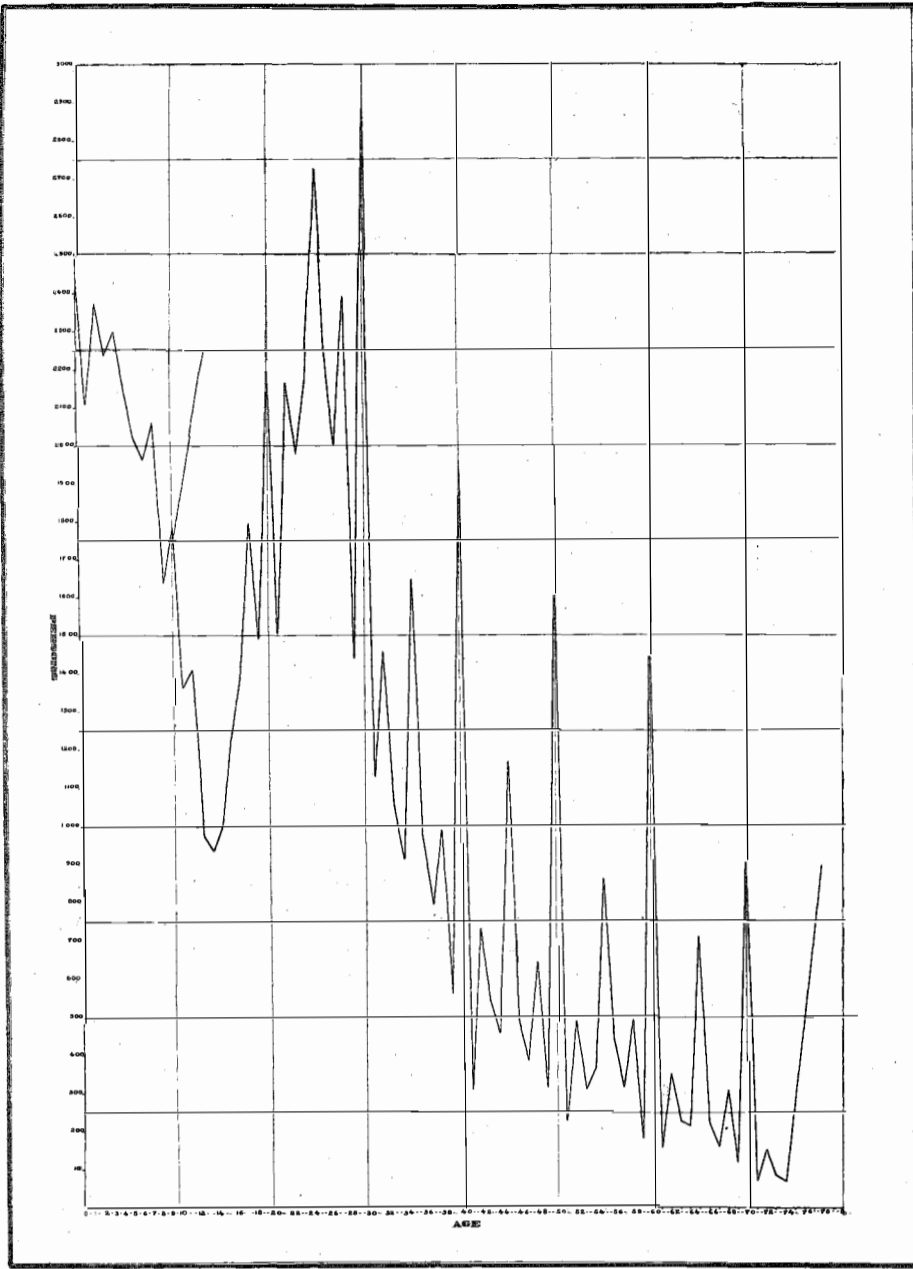
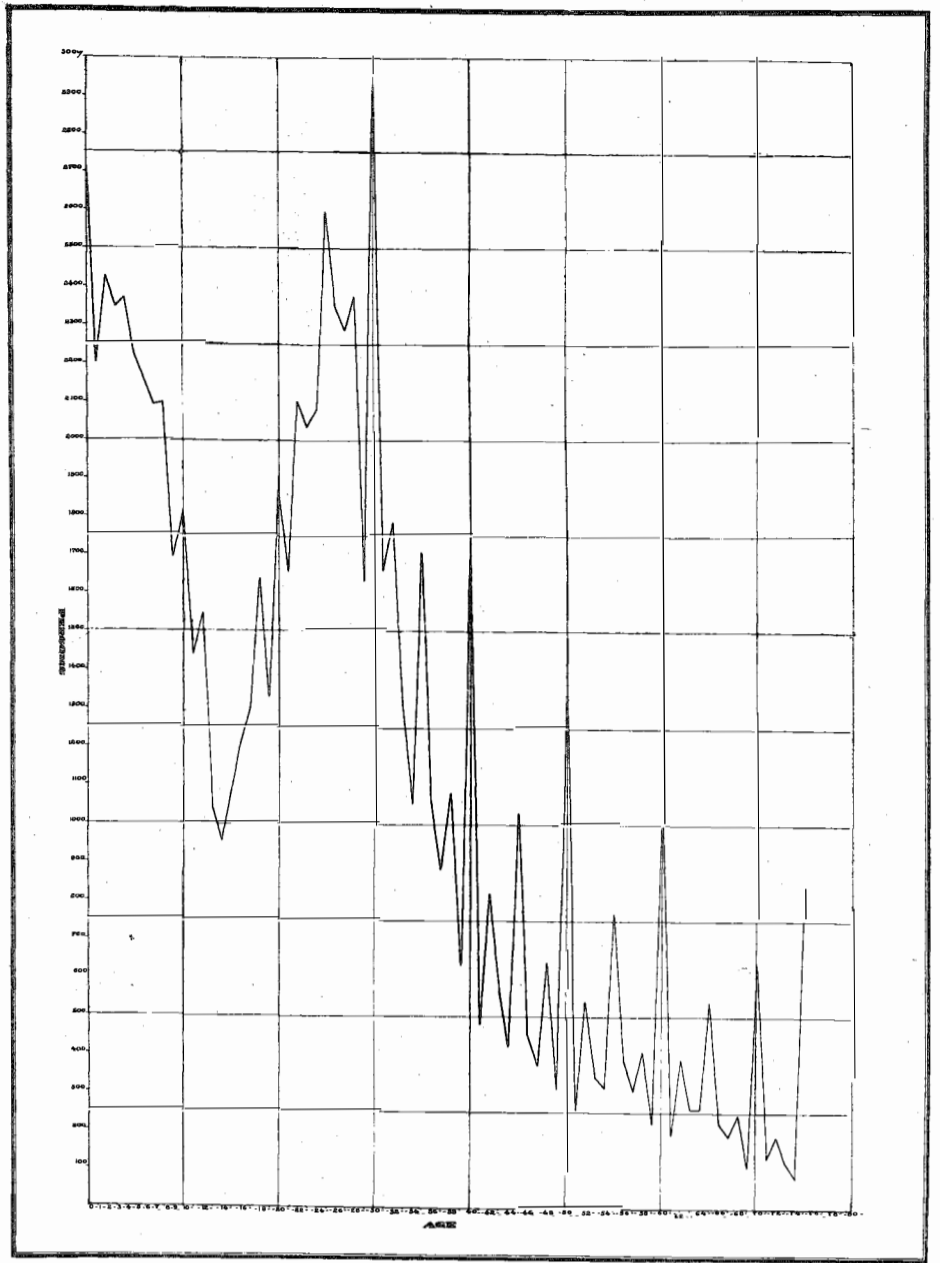


DIAGRAM No. 14

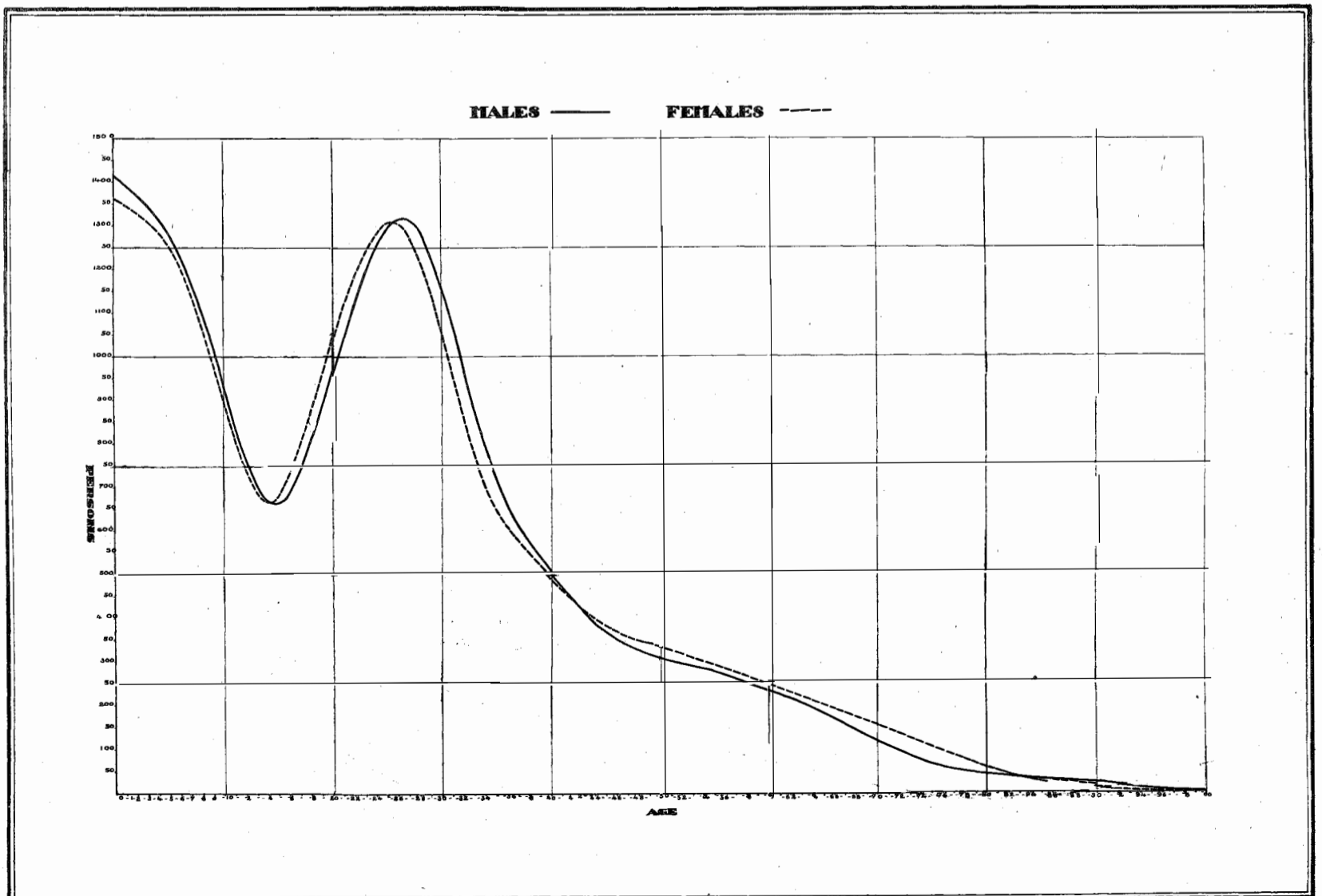
JEW
ACTUAL AGES RETURNED AT CENSUS
FEMALES



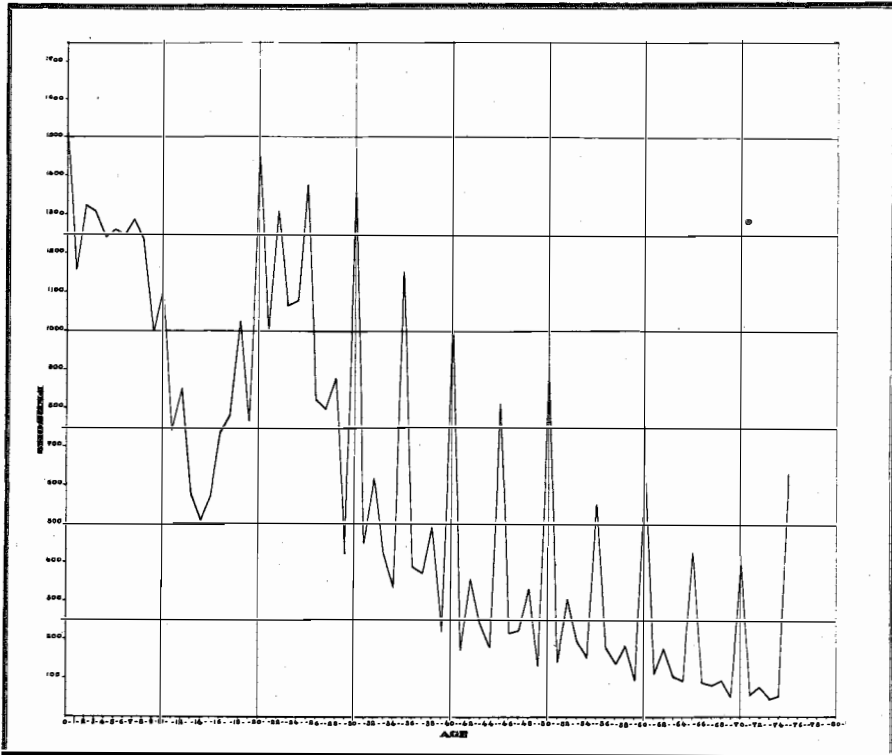
JEW
ACTUAL AGES RETURNED AT CENSUS
MALES



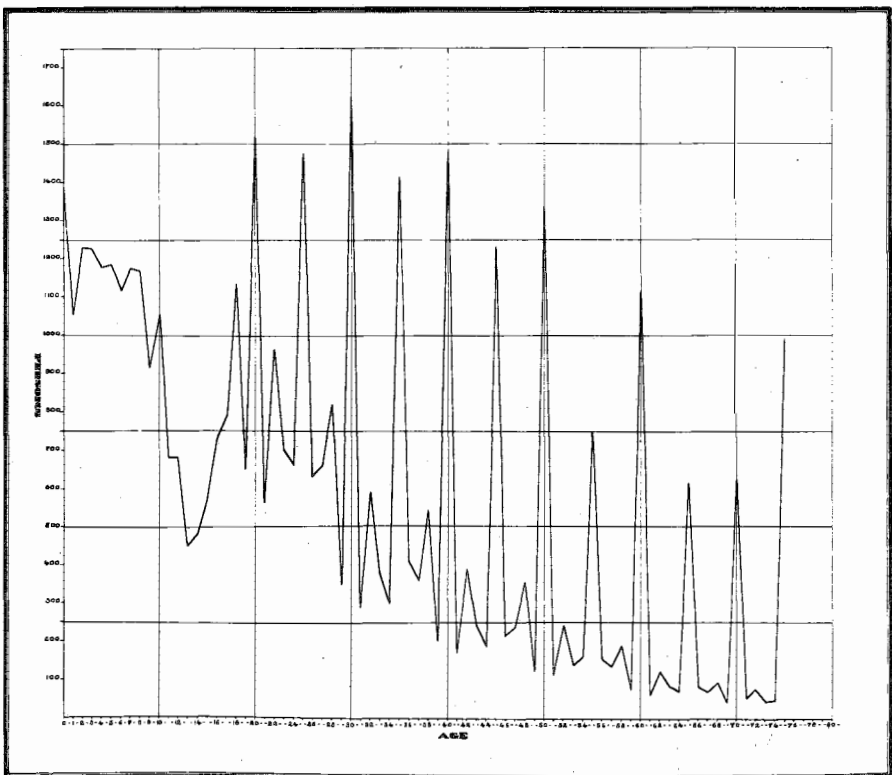
AGE DISTRIBUTION PER 50,000
JEW



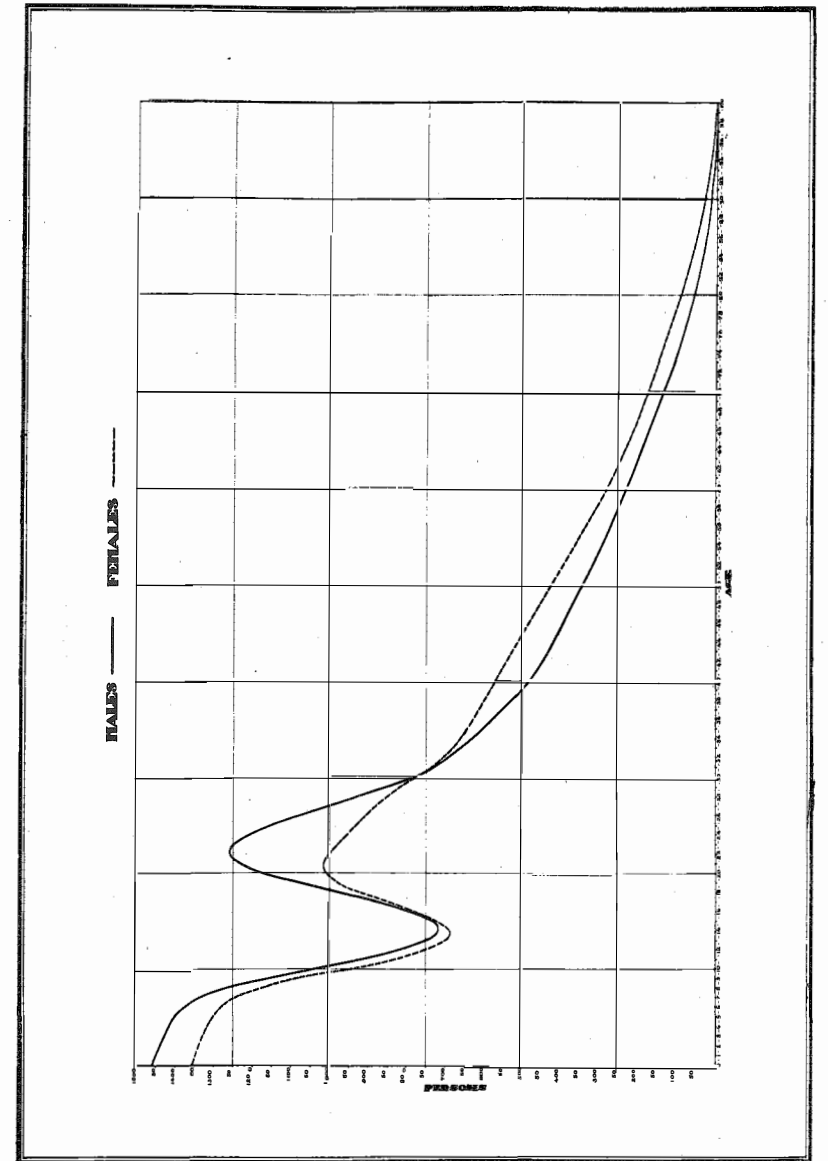
CHRISTIANS
ACTUAL AGES RETURNED AT CENSUS
MALES



CHRISTIANS
ACTUAL AGES RETURNED AT CENSUS
FEMALES



AGE DISTRIBUTION PER 50,000
CHRISTIANS



that girl children are not strongly desired and are consequently neglected from the age of 2 years upward : if they sicken no special attention is given them so that mortality among them is very heavy in the early years of life. Since there is marked deficiency in the absolute number of females as compared with the absolute number of males, and the proportion of females from the age of 19 years to the age of 82 years among females of all ages is everywhere greater than the similar proportion for males, and the difference in these proportions after the age of 83 years is negligible, it can be asserted that the total deficiency of females is the effect of forces operating on them between the ages of 2 and 18 years. It will be shown later that early childbirth is not a very important contributory to the mortality in adolescence, so that the diseases of childhood and adolescence are responsible in great measure for the deficiency in the female population. Such diseases are, in the main, remediable : but so long as daughters are not desired ; so long as women are regarded as cheap domestic labour and merely the necessary instrument for producing male heirs ; then so long will there be that neglect of girl life that is reflected in the age curves between the ages of 2 and 18 years. From the age of 20 to the age of 54 years the proportion of females in the female population at all ages is distinctly higher than the similar proportion among males. This fact combined with the absolute statistics, which show that the males and females are roughly equal in number at some ages and that females exceed the males in number at other ages, is a direct reflexion of the mortality caused among males during the war. Between the ages of 54 years and 80 years the proportion of females is again noticeably higher than that among males, but it is not clear that this difference is significant : it seems more probable that the female curve still shows at these ages the effects of the very violent distortions in the ungraduated age distribution due to women's more emphatic preferences for returning ages which are even multiples of 5. From the age of 75 years upward both curves are unreliable, but the general configuration of the age distributions at these late ages cannot be greatly dissimilar from that shown in the diagram. It is probable that both curves lie closely together from the age of 52 upward and that the irregularities shown in the female curve are mere reflexions of error persisting in the graduation. This kind of error is manifested also in the great width and depth of the wave-like formation between the ages of 10 years and 25 years. Nevertheless it was desirable not to remove that effect of error in those ages because there was danger in so doing of removing the significances of the age distributions in that range. Regarding the curves from right hand to left hand it will be seen that both fall rapidly from the age of 17 years to the age of 14 years and that the fall is greater for females than for males. These features are a direct effect of war conditions under which cohabitation between husbands and wives was limited so that, as in other countries, the years in which the war had an immediate effect, other than that due to mortality, are the years in which the birth-rate declined, particularly at the expense of the females. As has already been pointed out, error has made the wave-like formation wider and deeper than it actually is, but the general configuration fits well with expectation. This wave-like formation will travel down the curve during the succeeding decades becoming smaller and smaller but always perceptible until the survivors of the generations affected have entirely disappeared from the age constitution of the population.

It remains to notice the concavity of the curves with respect to the horizontal axis between the ages of 0 and 10 years. At first sight it might appear that the birth-rate has been declining during the last ten years and particularly during the last four years. It has, however, been shown in the section on errors of omission that at least 4,000 Moslem children aged 0-2 years have been omitted from the enumeration. Consequently the age curves have been flattened by errors of omission at the census, and the concavity is no evidence of a declining birth-rate. If the omissions had not occurred, the curves between the ages of 0 and 10 would very nearly have been straight lines with steep gradients, showing that during the past decade the births have been steadily increasing at high rates.

(b) The age distribution of Jews.

99. The Jewish age constitution as determined on the adjusted distribution has a well-defined crest between the 15 years and 35 years—a range of life which may be taken to be coincident with that of the large part of the immigrant population. As in the case of the Moslems this crest may be a little wider and deeper than in the actual age distribution of the population, but in its configuration it satisfies normal expectation. The left hand side of the crest may reflect the effect of the war on the birth-rate of the Jewish population actually resident in Palestine during that period, but the Jewish population just after the war was estimated to be about 56,000, less than one third of the enumerated population in 1931, so that the war effect on this part of the curve can only be small. Neither will it be expected that the other major effect of the war, the mortality of males in the reproductive ages, should be manifested in the curve of the age distribution, because the present population is preponderantly immigrant in character so that a large number of males in the ages affected by the mortality due to the war is superimposed on the war losses which are thereby concealed.

The minor irregularities in the later ages of life may represent defects in the graduation or the effect of systematic distortions due to cyclic errors in the original returns centred round ages which are multiples of 5 years.

The interesting feature of the sex distributions is the remarkable parallelism generally manifest throughout life between the proportions of males and females at each age to males and females at all ages respectively. As at present composed the Jewish community is remarkably well balanced in the association of age and sex. The proportion of females in the pre-nubile years is slightly less than the similar proportion of males: in the early reproductive years that proportion is slightly greater up to the age of 25 years and is met by the slightly greater proportion of males between the ages of 25 years and 42 years. This is an interesting distribution making for that form of sociological harmony which may be expected when biological needs are so naturally satisfied by conditions of age. Given favourable economic circumstances, the Jewish community, composed by age and sex as it is at present, is almost ideally constructed to fulfil social purposes.

The concavity with respect to the horizontal axis of both curves between the ages of 0 and 10 years differs from the similar feature in the Moslem curves on the ground that, as was shown in the earlier discussion on errors of age declarations, there is no evidence of a perceptible omission of very young children from the returns. The change of gradient may, therefore, indicate a declining birth-rate during the last five¹ years or a heavier infantile and child mortality during the last two or three years. The curves being descriptive of survivors are the resultants of the two forces of natality and mortality, with a possible third effect of negligible influence due to migration of young children. At this stage of analysis it is not possible to indicate if the concavity in the curves from the ages 0–10 years is due principally to a decline in birth-rate or an increase in mortality: but in a later section of this chapter will be shown that infantile mortality has declined so that the concavity of the age curves in the early years of life indicates a diminishing birth-rate. There is some ground for supposing that conscious control of parenthood is having an effect on the Jewish birth-rate which would, in consequence, show a downward tendency.

(c) The age distribution of Christians.

100. In the discussion of the age distribution of the Christian community the possible disturbances due to the special and fluctuating military and conventual populations must be kept in mind: and it must not be ignored that the smallness of the absolute numbers of the Christian population in itself introduces an appreciable measure of uncertainty into the graduated age constitution. Since the tables contain the records of foreign Christians² together with those of the local and native-born Christians, the age curves are not truly descriptive of the latter class of the population.

¹ This question is discussed in detail in a later section of this chapter concerning vital statistics generally, and the conclusion is definitely that the birth-rate is declining.—E.M.

² The number of European and American Christians is about 10,000. See Chapter IV (Religion).—E.M.

The pronounced feature of both curves is the trough the lowest point of which is at about 14 years of age, and it may be asserted that the right hand side of the trough, between the ages of 14 and 17 years, is descriptive of the decline in birth-rate due to conditions of war. It will be observed that both curves have well defined crests the highest points of which are at about 21 years for females and 22 years for males. The peak on the male curve is very markedly pronounced in comparison with that for the females. These peaks are due to the immigration of the special military and conventual populations to which reference has already been made. The peak in the curve for the female distribution is flatter than that in the male curve, and is also not so symmetrical, possibly indicating that the immigration of women is smaller in magnitude. The immigration of males is well distributed, as might be expected, between the ages of 20 and 30 years. If, however, the female curve be produced backward from the age of 30 years, it will intersect the vertical axis at a point not far distant from the point of intersection of the actual curve and the same axis. The special immigration of women therefore is very small and has little influence on the configuration of the age constitution of the female Christians; but the wide differences between ordinates of the female and male curves suggest that the small immigration of women is a phenomenon of all ages. Indeed, Palestine has a great attraction for women mission and social welfare workers, and for the pious, who desire active association with the land in which the founder of the Christian religion lived. The general features of the curve for females may therefore be taken without serious error to be the general features of the age distribution of the local Christian Arab female population, except that special immigration has from the age of 20 years raised the curve slightly away from the horizontal axis, so that the curve for the native-born Christian females is probably a little lower and a little steeper after the age of 20 years.

The remaining noteworthy features are found in the comparison between the curves for males and females. The proportions of females at ages between 0 and 30 years are smaller than the similar proportions for males, but after the age of 30 years the reverse phenomenon is strikingly manifest. In comparison with the other two communities the relation between the aged men and women shows a markedly higher survival rate of women in the Christian community. This observation is confirmed later in discussion concerning the mean ages of the communities.

101. On the basis of the graduated age distributions standard populations have been composed as follows:— **Standard populations.**

- (i) One hundred thousand Moslems of both sexes in quinary age groups :
- (ii) One hundred thousand Jews of both sexes in quinary age groups :
- (iii) Fifty thousand Christians of both sexes in quinary age groups :
- (iv) One hundred thousand persons of both sexes in quinary age groups.

In calculating the standard population for all religions no account has been taken of the persons adhering to the minor confessions. The majority of these, over 9,000 persons, are Druzes, and the remainder are either persons without religion, mostly Jews, or persons in very small numbers adhering to minor confessions.

Standard populations are valuable in permitting strict comparison between general and age specific death-rates year by year, or between locality and locality. They are constructed populations, and different countries have different ideas as to the best form of standard populations. It is, of course, advantageous to have as a standard a population differing not too greatly from the actual population in sex composition and age constitution. The standardized death-rate calculated on the basis of such a standard is then not greatly removed from reality. On the other hand a standard population is quite artificial, and there is no imperative need to have standardized death-rates approximating to actual death-rates. The real point of importance is that standardized death-rates as between different years or different localities are strictly comparable, while actual death-rates are not, since the age and sex composition of a population are continually changing. If, however,

importance is attached to having a standard as near as possible to the actual population in sex and age constitution then the standard must be varied fairly frequently in order to conform with that condition. As a yardstick, such a standard is far from perfect. In many respects the best standard that can be selected is the stationary population of a life-table constructed for the country. This stationary population changes very slowly and gives, therefore, a standard with a high degree of permanence. On the other hand the age and sex composition of the stationary population of a life table generally differ greatly from the age and sex composition of the actual population at any time. Since no life-tables have been constructed for Palestine it is not yet possible to adopt as a standard the stationary population of such a table, so that the best standards to be devised are those that are constructed from the graduated age distributions. These standards are given in Subsidiary Table No. *II*. Age specific death-rates have been shown for the actual population in 1931 and the standardized death-rates on the basis of the given standard population have also been calculated. These statistics are given in a later section of this chapter in which vital statistics are discussed. There is every reason now to calculate general standardized death-rates annually during the next decade on the basis of the standard population here given. In this way a statistical approach to an understanding of the force of mortality in Palestine at different ages at different times and in different places will be possible for the first time in Palestine.

**Examination
of the age
distributions.**

102. The preceding discussion concerning the graduation of the ages returned and the characteristics of the resulting regular curves enables a more confident examination of the actual age distribution for Palestine and of smaller geographical areas and of the communities. The two main features of the distributions are the effects, not yet fully understood in any country, of the war period, and the effect of immigration into the country; both these features are present when the group of population considered includes all types of the settled population; the effect of the war period is common to all groups of population taken at all ages; but the effect of immigration is a characteristic of the Jewish distribution and is manifested in the distribution for the whole population only through the Jewish population. These features must be kept in mind in the following discussion of sectional age distributions of the population.

**Comparison
with 1922.**

103. It has been explained in the first chapter that the figures of the census of 1922 have been recast into settled and nomadic populations for that year within the administrative framework existing at the time of the census 1931. Since the table showing age distribution in 1922 was prepared only in respect of the total population it is not possible to recast those figures into the framework on which the census statistics 1931 are founded. It is therefore impossible to compare the absolute and percentage changes in the populations at the different age groups in 1922 and 1931, so that, so far as the absolute statistics are concerned, the increments and decrements in the different parts of the two age distributions cannot be determined. Very shortly expressed, the difficulty arises from the fact that Mr. Barron in the census of 1922 either received an age return or assigned an age, so that all persons in the country were placed in one of his four age groups, 0-5 years, 5-15 years, 15-25 years, and 25 years and over. In 1931 the populations of the non-synchronous tracts made no returns of ages except in respect of the attainment of puberty. Consequently a division of the 1922 population into settled and nomadic populations to correspond with the settled and nomadic populations of 1931 cannot be made specific for different age groups but only in respect of all persons at all ages. Notwithstanding this defect, it is possible to make comparisons between the age distributions of 1922 and 1931 on proportionate populations of ten thousand persons, because Mr. Barron explains that, in assigning ages to those in respect of whom no age returns were made, he applied to such persons in total the ratios between his four age groups as these were calculated from the ages of those who rendered returns. Consequently there will be no great error in comparing proportions at various ages in the settled population of

1931 with the similar proportions in the total population of 1922. The comparison is, of course, not exact, particularly since the effect of re-casting the figures of 1922 has been to reduce the proportion of females to males at all ages in the settled population of that year. Notwithstanding this defect, it is the only comparison that can be made; and, provided that the defects are not forgotten, no seriously erroneous deduction need be made. The results are set out in the following table:—

SETTLED POPULATION IN AGE GROUPS 1931 AND 1922

AGE	Actual settled population (excluding those whose age was not recorded)						Increase or decrease per cent. 1922-1931		
	1931			1922			Persons	Males	Females
	Persons	Males	Females	Persons	Males	Females			
1	2	3	4	5	6	7	8	9	10
All ages ...	968,819	490,972	477,847	671,485	344,088	327,397	+ 44.3	+ 42.7	+ 46.0
0 - 5 ...	168,602	86,014	82,588	...	...	...	...	...	...
5 - 10 ...	133,280	70,470	62,810	...	...	...	...	...	...
10 - 15 ...	78,476	42,879	35,597	...	...	...	...	...	...
15 - 20 ...	63,212	33,570	29,642	...	...	...	...	...	...
20 - 25 ...	87,717	44,305	43,412	...	...	...	...	...	...
25 - 30 ...	93,234	46,566	46,668	...	...	...	...	...	...
30 - 35 ...	73,275	35,757	37,518	...	...	...	...	...	...
35 - 40 ...	60,356	30,840	29,876	...	...	...	...	...	...
40 - 45 ...	49,141	22,973	26,168	...	...	...	...	...	...
45 - 50 ...	37,049	18,909	18,140	...	...	...	...	...	...
50 - 55 ...	35,652	16,777	18,875	...	...	...	...	...	...
55 - 60 ...	19,747	10,127	9,620	...	...	...	...	...	...
60 - 65 ...	26,033	11,837	14,196	...	...	...	...	...	...
65 - 70 ...	13,071	6,511	6,560	...	...	...	...	...	...
70 - 75 ...	14,136	6,256	7,880	...	...	...	...	...	...
75 - ...	15,838	7,541	8,297	...	...	...	...	...	...

PROPORTIONATE POPULATION IN AGE GROUPS 1931 AND 1922

AGE	Distribution per 10,000						Increase or decrease in proportions 1922-1931		
	1931 (settled population)			1922 (total population)			Decrease (—)		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10
All ages ...	10,000	5,068	4,932	10,000*	5,113*	4,887*	...	— 45	45
0 - 5...	1,740	888	852	1,667	890	777	73	— 2	75
5 -10...	1,376	727	649	2,047	1,133	914	139	37	102
10 -15...	810	443	367						
15 -20...	652	346	306	1,512	685	827	45	118	— 73
20 -25...	905	457	448						
25 -30...	963	481	482	4,774	2,405	2,369	— 257	— 198	— 59
30 -35...	756	369	387						
35 -40...	623	315	308	2,310	187	195	122	147	147
40 -45...	507	237	270						
45 -50...	382	195	187	122	99	147	147	147	147
50 -55...	368	173	195						
55 -60...	204	105	99	122	99	147	147	147	147
60 -65...	269	122	147						
65 -70...	135	67	68	122	99	147	147	147	147
70 -75...	146	65	81						
75 - ...	164	78	86	122	99	147	147	147	147

*Proportions in settled population 1922 are 5,124 males and 4,876 females.

The figures in the second section of the table in columns (2), (3) and (4) have been set out for the conventional quinary groups, but, in order to establish comparison with the coarse grouping adopted in 1922, certain groups have been compressed and the totals are given in the right hand side of those columns. The increases and decreases given in the right hand half of this section of the table are interesting but cannot be properly interpreted in the absence of the increases and decreases per cent. in respect of the absolute figures in all the age groups in the upper section of the table. Having regard only to all ages and not to age groups the settled population has increased by 44.3 per cent., the males by 42.7 per cent. and the females by 46 per cent. Turning to the proportionate populations and taking both sexes together the combined effect of the increases and decreases over the whole age field has resulted in a more youthful population, since on the proportionate figures the increases lie on the youthful side of 25 years being counter-balanced by the decreases in ages beyond that mark. Taking the sexes separately, however, it will be seen that the increases below the age of 25 years are preponderantly due to the increases in the proportions of females at those ages. Both the absolute and proportional increases appear to suggest that the population shows a tendency not only to be more youthful but to be more feminine. It is, however, an open question whether there are good grounds for supposing that the population is changing its dominant note of masculinity. The birth ratio is between 107 and 108 boys to 100 girls, a standard found in most eastern countries; and the general age curves show that there is a marked deficiency of females below the age of 18 years. One completely satisfactory explanation of the figures is that there was a short count of women below the age of 25 years in 1922. This explanation is also suggested by the ratios between the sexes at all ages in the total population of 1922 and the settled population of 1931; namely 1,046 and 1,027 males per thousand females in the two years respectively. The disparity is greater when the sex ratios in the settled population of 1922 and 1931 are compared, namely, 1,051 and 1,027 males per thousand females at all ages for the two years. Since the birth ratio has not changed and is decidedly in favour of the males, the explanation of so large a difference in the sex ratios for all ages in a period of nine years must be sought either in a very heavy mortality among the males in the early ages of life during that period, or a heavy mortality among the females in the later ages of life during the same period, or in a shortage of count of females in 1922. There is no evidence that the mortality among males has been abnormal in the early period of life or that of the females in the later period of life, so that the explanation is probably to be found in a failure to record a not negligible number of females in the census of 1922*. In this regard it should be remembered that in 1922 the effects of the war were still apparent particularly in the southern regions of Palestine where there had been a large permanent loss of males, so that in the years just after the war the females, if deficient in number, as is the case in most eastern countries, would be nearer equality with the males than at any time before or since; the masculinity revealed by the birth ratio would disturb the equilibrium in the direction of increasing the general sex ratio in favour of the males, and this increase would tend to be re-inforced by immigration which is more largely male than female in character¹. Comparison between 1922 and 1931 reveals the opposite tendency and, in the absence of evidence of abnormal mortality among males, emigration being of no weight in comparison with immigration, the conclusion must be that the registration of females in 1922 was defective². This conclusion would, however, be upset if the birth ratio of 107 males to 100 females be based upon defective registration of the births of females. In that case the proportionate increases in the numbers of females per ten thousand of population in the ages 0-15 years could be explained by an impulse on the part of the population to reduce the dominance of its masculinity—

*Inward migration tends to be more masculine than feminine, and examination of the records shows that the change is too great to be explained on the basis of migration.—E.M.

¹ This is not necessarily true: it depends on the magnitude of the sex ratio of migrants.—E.M.

² For a further discussion see Chapter VI (Sex).—E.M.

an impulse not revealed by the registration of births. In the following section it will be seen that of ten thousand Moslem males at all ages 1,888 are in the age group 0-5 years, and that of ten thousand Moslem females at all ages 1,884 are in the same age group. The Southern district which is largely rural in character gives for the age group 0-5 years 1,762 per ten thousand males and 1,786 per ten thousand females. There is, therefore, a distinct suggestion that the population is attempting to reduce its undue masculinity whether by adjustment in the births of the sexes or through heavy infantile and early mortality among males¹. The evidence given by the registered births may thus be unreliable, particularly in the case of girl babies. It is, in any event, clear that there is no ground for making a categorical inference on this phase of the statistics. It is safe only to conclude from the results that the population in both sexes is tending to become more youthful: and that the change of sex proportions may be due to a short count of young females at the census 1922 or to a significant reduction in the dominance of masculinity.

104. The following table and Subsidiary Table No. *III* give the proportional age distributions in quinquennial age-periods for Palestine as a whole, the three districts, the three main religious confessions and the five towns of Jerusalem, Jaffa, Tel Aviv, Haifa and Nablus.

Sectional
distribution
of age.

DISTRIBUTION BY AGE OF POPULATION OF PALESTINE BY LOCALITY AND RELIGIOUS CONFESSION.

MALES													
AGE	DISTRICT				RELIGION				TOWN				
	Pales- tine	South- ern District	Jeru- salem District	North- ern District	Moslems	Jews	Chris- tians	Others	Jaffa	Tel Aviv	Jeru- salem	Nablus	Haifa
1	2	3	4	5	6	7	8	9	10	11	12	13	14
All ages ...	491,258	155,983	128,536	206,739	352,172	88,100	45,896	5,090	27,728	22,433	45,776	8,487	27,043
0-5 ...	86,014	27,463	22,531	36,020	66,483	12,044	6,607	880	4,390	2,573	6,557	1,491	3,797
5-10 ...	70,470	21,623	19,129	29,718	53,510	10,259	6,029	672	4,005	2,296	6,205	1,399	3,131
10-15 ...	42,879	12,568	11,784	18,527	31,814	6,787	3,783	495	2,337	1,659	4,137	934	1,899
15-20 ...	33,570	10,201	9,119	14,250	22,829	6,568	3,891	282	2,216	1,652	4,077	616	2,191
20-25 ...	44,305	13,994	11,178	19,133	28,262	9,750	5,915	378	2,853	2,149	5,176	738	3,395
25-30 ...	46,566	15,036	10,949	20,581	30,534	11,241	4,299	492	2,468	2,690	4,431	621	3,421
30-35 ...	35,757	11,911	8,506	15,340	23,440	8,741	3,177	399	2,091	2,486	3,488	532	2,661
35-40 ...	30,480	9,850	7,421	13,209	22,194	5,364	2,611	311	1,762	1,566	2,514	430	1,840
40-45 ...	22,973	7,450	6,008	9,515	16,769	3,985	1,960	259	1,580	1,227	2,122	418	1,335
45-50 ...	18,909	6,083	4,837	7,989	14,181	2,812	1,706	210	986	900	1,537	340	937
50-55 ...	16,777	5,686	4,416	6,676	12,156	2,796	1,662	163	1,043	878	1,468	286	832
55-60 ...	10,127	3,428	2,822	3,876	6,756	2,097	1,137	137	483	672	1,024	196	453
60-65 ...	11,837	3,930	3,433	4,474	8,427	2,164	1,119	127	626	600	1,116	222	462
65-70 ...	6,511	2,043	1,963	2,505	4,383	1,303	733	92	237	402	666	82	267
70-75 ...	6,256	2,103	1,945	2,208	4,406	1,147	626	77	332	341	636	105	197
75- ...	7,541	2,420	2,462	2,659	5,961	834	631	115	311	191	604	76	200
Not recorded	286	194	33	59	67	208	10	1	8	151	18	1	25

FEMALES													
AGE	Pales- tine	South- ern District	Jeru- salem District	North- ern District	Moslems	Jews	Chris- tians	Others	Jaffa	Tel Aviv	Jeru- salem	Nablus	Haifa
All ages ...	478,010	148,549	128,954	200,507	340,987	86,510	45,502	5,011	24,138	23,668	44,727	8,702	23,360
0-5 ...	82,588	26,522	21,609	34,457	64,225	11,463	6,083	817	4,122	2,547	6,199	1,477	3,404
5-10 ...	62,810	19,248	16,917	26,645	46,771	9,836	5,567	636	3,470	2,323	5,670	1,290	2,991
10-15 ...	35,597	10,303	10,016	15,278	25,342	6,465	3,365	425	1,833	1,601	3,767	751	1,763
15-20 ...	29,642	8,855	8,530	12,257	18,555	6,921	3,878	288	1,816	1,980	3,994	643	1,853
20-25 ...	43,412	13,886	10,809	18,717	28,556	10,021	4,404	431	2,558	2,783	4,483	725	2,732
25-30 ...	46,668	15,201	11,475	19,992	31,449	10,806	3,942	471	2,202	3,154	4,129	738	2,722
30-35 ...	37,518	12,073	9,765	15,680	26,488	7,459	3,182	389	1,969	2,262	3,285	701	1,992
35-40 ...	29,876	9,027	8,249	12,600	21,653	4,967	2,929	327	1,284	1,498	2,543	473	1,400
40-45 ...	26,168	7,917	7,272	10,979	19,403	3,984	2,465	316	1,340	1,212	2,362	475	1,160
45-50 ...	18,140	5,505	5,037	7,598	12,790	3,004	2,159	187	755	935	1,642	329	803
50-55 ...	18,875	5,850	5,212	7,813	13,659	3,027	1,996	193	932	890	1,779	383	818
55-60 ...	9,620	3,017	2,879	3,724	5,920	2,288	1,308	104	337	748	1,120	141	439
60-65 ...	14,196	4,295	4,078	5,823	10,130	2,459	1,458	149	652	665	1,428	223	499
65-70 ...	6,560	1,863	2,047	2,650	4,040	1,523	914	83	180	456	818	97	245
70-75 ...	7,880	2,320	2,483	3,077	5,655	1,289	852	84	342	322	819	130	239
75- ...	8,297	2,572	2,555	3,170	6,195	900	991	111	343	214	676	126	295
Not recorded	163	95	21	47	56	98	9	...	3	78	13	...	5

¹ It will be shown later that infantile mortality is heavier among males, but that mortality among young girls aged 2-5 years is significantly effective in reducing the proportion of females.—E.M.

DISTRIBUTION BY AGE OF PROPORTIONATE POPULATION OF 10,000 BY LOCALITY AND RELIGIOUS CONFESSION

(Not recorded are not included)

AGE	DISTRICT				RELIGION				TOWN				
	Pales- tine	South- ern District	Jeru- salem District	North- ern District	Moslems	Jews	Chris- tians	Others	Jaffa	Tel Aviv	Jeru- salem	Nablus	Haifa
	2	3	4	5	6	7	8	9	10	11	12	13	14
All ages ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
0-5 ...	1,752	1,762	1,754	1,743	1,888	1,370	1,440	1,729	1,584	1,155	1,433	1,757	1,406
5-10 ...	1,436	1,387	1,489	1,439	1,520	1,167	1,314	1,320	1,445	1,030	1,357	1,648	1,160
10-15 ...	874	807	918	897	904	772	824	973	844	745	905	1,100	703
15-20 ...	683	655	709	689	648	747	848	854	799	741	891	726	810
20-25 ...	903	899	870	926	803	1,109	1,289	743	1,029	964	1,131	870	1,257
25-30 ...	949	965	852	996	867	1,279	937	967	890	1,207	968	732	1,267
30-35 ...	729	764	662	742	666	995	692	784	754	1,116	762	627	984
35-40 ...	621	632	577	639	630	610	569	611	636	703	549	507	680
40-45 ...	464	478	467	460	476	454	427	509	570	551	463	493	494
45-50 ...	385	391	376	386	403	320	372	413	356	404	336	401	346
50-55 ...	342	366	343	323	345	318	362	320	376	394	321	337	308
55-60 ...	206	221	220	187	192	239	248	269	174	302	224	231	168
60-65 ...	241	252	267	216	239	246	244	250	226	269	244	261	171
65-70 ...	133	131	153	121	125	148	160	181	85	180	145	97	99
70-75 ...	128	135	151	107	125	131	136	151	120	153	139	124	73
75- ...	154	155	192	129	169	95	138	226	112	86	132	89	74

FEMALES

All ages ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
0-5 ...	1,728	1,786	1,677	1,720	1,884	1,327	1,337	1,631	1,709	1,080	1,387	1,697	1,458
5-10 ...	1,315	1,297	1,313	1,329	1,372	1,138	1,224	1,269	1,438	985	1,269	1,482	1,281
10-15 ...	745	695	777	762	743	748	740	848	759	679	843	863	755
15-20 ...	620	597	661	611	544	801	852	575	752	839	893	739	793
20-25 ...	909	936	838	934	837	1,160	968	860	1,060	1,180	1,002	833	1,170
25-30 ...	976	1,025	890	997	922	1,250	866	940	912	1,337	923	848	1,165
30-35 ...	785	813	757	782	777	863	699	776	816	959	734	806	853
35-40 ...	625	608	640	629	635	575	644	653	532	635	569	544	599
40-45 ...	548	533	564	548	569	461	542	631	555	514	528	546	497
45-50 ...	380	370	390	379	375	348	475	373	313	396	367	378	344
50-55 ...	395	394	404	390	401	350	439	385	386	377	398	440	350
55-60 ...	201	203	223	186	174	265	288	207	139	317	251	162	188
60-65 ...	297	289	316	290	297	285	320	297	270	289	319	256	214
65-70 ...	137	125	159	132	119	176	201	166	75	193	183	112	105
70-75 ...	165	156	193	153	166	149	187	168	142	136	183	149	102
75- ...	174	173	198	158	185	104	218	221	142	91	151	145	126

RATIO OF PROPORTIONAL POPULATION AT EACH AGE GROUP BY LOCALITY AND RELIGIOUS CONFESSION.

Palestine males = 100

MALES

AGE	DISTRICT				RELIGION				TOWN				
	Pales- tine	South- ern District	Jeru- salem District	North- ern District	Moslems	Jews	Chris- tians	Others	Jaffa	Tel Aviv	Jeru- salem	Nablus	Haifa
	2	3	4	5	6	7	8	9	10	11	12	13	14
0-5 ...	100	101	100	99	108	78	82	99	90	66	82	100	80
5-10 ...	100	97	104	100	106	81	92	92	101	100	95	115	81
10-15 ...	100	92	105	103	103	88	94	111	97	85	104	126	80
15-20 ...	100	96	104	101	95	109	124	81	117	109	131	106	119
20-25 ...	100	100	96	103	89	123	143	82	114	107	125	96	139
25-30 ...	100	102	90	105	91	135	99	102	94	127	102	77	136
30-35 ...	100	105	91	102	91	136	95	108	103	153	105	86	135
35-40 ...	100	102	93	103	102	98	92	98	102	113	88	82	110
40-45 ...	100	103	101	99	103	98	92	110	123	119	100	106	106
45-50 ...	100	102	98	100	105	83	97	107	93	105	87	104	90
50-55 ...	100	107	100	94	101	93	106	94	110	115	94	99	90
55-60 ...	100	107	107	91	93	116	120	131	84	147	109	112	82
60-65 ...	100	105	111	90	99	102	101	104	94	117	101	108	71
65-70 ...	100	98	115	91	94	111	120	136	64	135	109	73	74
70-75 ...	100	105	118	84	98	102	106	118	94	120	109	97	57
75- ...	100	101	125	84	110	62	90	147	73	56	86	58	48

Palestine females = 100

FEMALES

0-5 ...	100	103	97	99	109	77	77	94	99	62	80	98	84
5-10 ...	100	99	100	101	109	87	93	97	109	75	97	113	97
10-15 ...	100	93	104	102	100	93	104	114	102	91	113	108	101
15-20 ...	100	96	107	99	88	129	137	93	121	135	144	119	128
20-25 ...	100	103	92	103	92	128	106	95	117	130	110	92	129
25-30 ...	100	105	91	102	94	128	89	96	93	137	95	87	119
30-35 ...	100	103	96	100	99	110	89	99	104	122	94	103	109
35-40 ...	100	97	102	101	102	92	103	104	85	102	91	87	96
40-45 ...	100	97	103	100	104	84	99	115	101	94	97	100	91
45-50 ...	100	97	103	100	99	92	125	98	82	104	97	99	91
50-55 ...	100	100	102	99	101	89	111	97	98	95	101	111	89
55-60 ...	100	101	111	93	87	132	143	103	69	158	125	81	94
60-65 ...	100	97	106	98	100	96	107	100	91	95	107	86	72
65-70 ...	100	91	116	96	87	128	147	121	55	141	134	82	77
70-75 ...	100	95	117	93	101	90	113	102	86	82	111	90	62
75- ...	100	99	114	91	106	60	125	127	82	52	87	83	72

The third section of the table shows the percentage ratios of the frequencies in each age group of the proportionate sectional populations, the age distribution for all males and for all females of the settled population of Palestine being taken as the basis. The sets of Diagram No. 17 illustrate similar features except that the standard taken for comparative purposes is a constructed population for Palestine of ten thousand persons of whom five thousand are males distributed through the ages in proportion to their distribution in the settled population and five thousand are females distributed through the ages in proportion to their distribution in the settled population. The resulting distribution is given in the margin. Thus in

COMPOSITE POPULATION OF 5,000 MALES AND 5,000 FEMALES

Age	Number
All ages ...	10,000
0 - ...	1,740
5 - ...	1,376
10 - ...	810
15 - ...	651
20 - ...	906
25 - ...	962
30 - ...	757
35 - ...	624
40 - ...	506
45 - ...	383
50 - ...	368
55 - ...	203
60 - ...	269
65 - ...	135
70 - ...	146
75 - ...	169

each sectional diagram ten thousand males and ten thousand females distributed through the ages according to their local distribution are compared with a constructed standard population of ten thousand persons, half of whom are male and half female, distributed through the ages in proportion to the respective male and female distributions in the settled population.

105. The main features of all the curves are the effect of the war period which is common to all and the effect of immigration which is common to all curves in which Jewish characteristics are dominant. Mention has been made in the section concerning errors in age declarations of the wave-like distortions introduced in grouping by quinquennial periods at the even multiples of 5 years, and it has been shown that there is no real biostatistical significance in the resulting fluctuations in the curves.

106. Taking Palestine as a whole it is clear that the proportion of males per ten thousand is in excess of the proportion of females per ten thousand up to the age of 20 years, after which age the proportion of females is in excess of the males. The period of the war is well-marked in the trough from 14 years to eighteen years of age when there was a sharp decline in the addition by births to population common to all countries affected by that event: a further effect of the war may be the preponderance of females between the ages of 25 years and 45 years caused by the early mortality of males in the reproductive period of life. This feature will move down the curve as the years advance and will become less noticeable at each decade.

The distribution for Palestine.

The following comparative table illustrates the differences between the age constitution of the population of Palestine and that of each of the several countries named:—

NUMBER OF PERSONS OF EACH SEX IN EACH AGE GROUP IN DIFFERENT COUNTRIES† PER 10,000 OF EACH SEX.

M A L E S									
Country	Year of census	All ages	0-5	5-15	15-25	25-45	45-65	65-	Not recorded
England and Wales ...	1921	10,000	930	1,993	1,757	2,831	1,945	543	...
Germany ...	1925	10,000	988	1,708	2,103	2,752	1,922	526	...
Poland ...	1921	10,000	1,059	2,630	2,087	2,266	1,514	422	21
Greece ...	1928	10,000	1,269	2,060	1,959	2,485	1,624	570	34
Bulgaria ...	1926	10,000	1,449	2,114	2,077	2,468	1,348	544	...
U.S.S.R. (Europe) ...	1926	10,000	1,586	2,305	2,158	2,352	1,226	367	6
U.S.A. ...	1920	10,000	1,087	2,063	1,707	2,973	1,691	460	17
Egypt ...	1927	10,000	1,409	2,547	1,704	‡2,212	\$1,492	††609	26
Palestine* ...	1931	10,000	1,752	2,310	1,586	2,763	1,174	415	...
Moslems*	...	10,000	1,888	2,424	1,451	2,639	1,179	419	...
Christians*	...	10,000	1,440	2,138	2,137	2,625	1,226	434	...
Jews*	...	10,000	1,370	1,939	1,856	3,338	1,123	374	...

† Comparative statistics taken from *Aperçu de la démographie des divers pays du monde*—La Haye, 1932 (except Egypt).

* Persons not returning age excluded.

‡ 40 - 60

‡ 25 - 40

†† 60 and over

NUMBER OF PERSONS OF EACH SEX IN EACH AGE GROUP IN DIFFERENT COUNTRIES† PER
10,000 OF EACH SEX.—*continued*

F E M A L E S										
Country	Year of census	All ages	0-5	5-15	15-25	25-45	45-65	65-	Not recorded	
England and Wales	1921	10,000	828	1,805	1,756	3,024	1,926	662	...	
Germany	1925	10,000	896	1,566	1,969	3,031	1,915	622	...	
Poland	1921	10,000	966	2,423	2,252	2,416	1,502	416	24	
Greece	1928	10,000	1,195	1,892	2,042	2,680	1,562	598	30	
Bulgaria	1926	10,000	1,407	2,019	2,056	2,620	1,362	535	...	
U.S.S.R. (Europe)	1926	10,000	1,420	2,101	2,146	2,510	1,366	452	5	
U.S.A.	1920	10,000	1,103	2,108	1,835	1,943	1,528	473	11	
Egypt	1927	10,000	1,455	2,305	1,674	‡2,340	§1,494	††701	30	
Palestine*	1931	10,000	1,728	2,060	1,529	2,934	1,273	476	...	
Moslems*		10,000	1,884	2,115	1,381	2,903	1,247	470	...	
Christians*		10,000	1,337	1,964	1,820	2,751	1,522	606	...	
Jews*		10,000	1,327	1,886	1,961	3,149	1,248	429	...	

† Comparative statistics taken from "Aperçu de la démographie des divers pays du monde"—La Haye, 1932 (except Egypt).

* Persons not returning age excluded.

‡ 25 - 40

§ 40 - 60

†† 60 and over

As has already been pointed out the preferences in Palestine for ages that are multiples of 5 distort the proportions in the age-grouping adopted; but, even so, there is a very distinct indication of the youthfulness of the Palestine population compared with other populations. This youthfulness, it is seen, is governed by the Moslem and Christian communities, the Jewish community, having a very high proportion of its numbers in the age-group 25-45 years, the age-group which includes a large proportion of the immigrant population.

**Sex and age
distributions
by religion.**
(a) Moslems.

107. The distributions of sex and age by religious confessions are of great interest. The second and third sections of the table show that for Moslems the preponderance of children in early ages is well marked and the diagrams reveal strikingly the unconscious social tendency among Moslems to obtain a smaller degree of disparity between the sexes, the proportion of each sex and 0-5 years in ten thousand of each sex being very nearly equal. It will be observed that between the ages of 15 years and 35 years both curves lie well below the curve of the standard population. This feature is due to the fact that the standard population is based on the distribution of the total population, including immigrants; it will be seen that the Moslem population, therefore, receives no marked increments in that period of life which is characteristic of economic migration. This feature gives a peculiar interest to the form of the curves at the ages 20-25 years. Since migration is of no importance in determining the forms of these curves, the curves exhibit the effects of births and deaths for the greater part of a century. That part of the curve lying between the ages of 20 years and 25 years is the resultant of the forces of natality in the years immediately preceding the war and the forces of mortality operating since then. Making allowance for the fact that the force of mortality due to the war had its direct effect on both sexes now aged 25 years and upward, the slope of the curves between ages 20 years and 25 years suggests that the birth-rate was falling in the year prior to the war: but the slope is artificially determined by the age declarations at multiples of 5 years, and it is probable that the graduated age distribution which reflects an opposite tendency is nearer the truth in this respect. If allowance be made for preferences for the multiples of 5 and the curves produced backward to the age 0 years, it will be seen that, ignoring the cataclysmic circumstances of the decennium including the war, the birth-rates of today are abnormally high, just as the birth-rates during the war period may be described as low. Upon this natural movement have been superimposed those social tendencies derived from the benefits of a service

of public health reducing the incidence of fatal epidemics and the number of infant deaths. These two sets of tendencies in the same direction have materially altered the demographic character of the local population ; and it will be seen later that the native-born population of Palestine can now be defined as progressive whereas before the war it was at best stationary or, more probably, regressive. The point is of considerable importance because a population which becomes or is made suddenly progressive has considerable difficulty in making the necessary economic adjustments. What may be called the tradition of population is no more than the attempt to establish stable equilibrium between requirements and the means of satisfaction, and a sudden disturbance of that tradition due to any cause of social or economic origin must necessarily be followed by local maladjustments with consequential social discomforts. Such consequences, of themselves, lead to a better adaptation of resources and means ; and, up to a certain limit, known as the *optimum*, an increasing population creates new sources of productive activity to meet the needs of the growing people. The history of population elsewhere shows that the *optimum* population for Palestine cannot be assigned to a remote future and, notwithstanding the youthfulness of the Moslem and the rural population revealed by the census, it may be anticipated that the rate of increase of the natural population within Palestine will not be maintained for long at its present level.

108. The distributions of the Christians are affected by the presence of immigrant populations of His Majesty's Forces, the members of the Civil Service and of the monasteries and convents. (b) **Christians.** The distortions in the age distributions due to these influences are strongly marked in the second and third sections of the table and in the diagram. There is a most emphatic deficiency of children up to the age of 10 years ; there is a most marked effect of immigration of males in the ages 15 years to 35 years ; there is a decided "agedness" of the community in comparison with others and with the chosen standard population ; and there is a remarkable excess of the proportion of females of the age of 35 years and upward among females over the proportion of males at the same ages in the male population. These features are directly traceable to the influences mentioned above. The group as composed is badly balanced both in age and in sex composition ; but, since the distortions are introduced mainly through the foreign-born part of the community, the phenomenon is of no serious social consequence. Had the resources of mechanical tabulation been available it would have been possible to have set out explicitly the differences caused by the presence of the foreign-born in a small community defined primarily in relation to its history of persistence in a Moslem province of a Moslem empire. The discussion in Chapter IV (Religion) has revealed the relative magnitudes of the foreign and native born Christians and that the number of European and American Christians is about 10,000 ; and knowledge of the facts that British soldiers and British police are in the early reproductive years of life, but on the whole, unmarried, and that conventual populations are, by the nature of their vocation, not reproductive, is sufficient to explain the characteristics of the age curves for Christians. In fact the distortions may be great enough to disguise the real features of the native-born Christian community, certainly on its male side, and to a smaller extent on its female side.

109. The main features of the Jewish distributions are the comparatively great deficiency in children of early ages and the emphatic excesses in the immigration period from the ages of 15 years to 35 years. (c) **Jews.** Between the ages of 55 years and 75 years the proportions of each sex are on the whole higher than those in each sex of the total population and those in both sexes in the standard population. As for the Christians with their disturbing group populations, the force of mortality does not appear to have the same destructive effects at these later ages as are manifested among the Moslems. There may be in both communities a special immigration of aged people who desire to be in the Holy Land at the time of death. On the other hand it is well established that primitive people are com-

paratively short-lived and there appears to be a direct association between longevity and modern civilized life. In so far as longevity can be regarded as a measure of civilization, the Christian community with its foreign elements takes the first place at present among the communities ranked according to such a scale. This question is considered more fully in a later section of this chapter, but it may be observed here that the ranking may change as the immigrant Jewish population passes in the period of old age.

There is also manifested in the Jewish community an ideal proportion between the sexes at most ages in life.

It will perhaps be of interest to compare the age distribution of the Jewish population in Palestine 1931 with that of Jewish populations in Czecho-slovakia and Poland in 1921. The following table gives the comparative figures:—

DISTRIBUTION BY AGE OF PROPORTIONATE JEWISH POPULATION OF 1,000 IN DIFFERENT COUNTRIES.

AGE	CZECHO-SLOVAKIA 1921		POLAND 1921		PALESTINE 1931	
	Males	Females	Males	Females	Males	Females
All ages ...	1,000	1,000	1,000	1,000	1,000	1,000
0 - 5 ...	80	72	212	188	137	133
5 - 10 ...	227	208	146 358	133 321	77 331	75 322
10 - 15 ...	307	280				
15 - 40 ...	408	416	389	441	474	465
40 - 60 ...	197 605	203 619	180 569	171 612	133 607	142 607
60 - ...	88 88	101 101	73 73	67 67	62 62	71 71

There is a greater proportion of young children up to 15 years of age of both sexes in Palestine than in Czecho-slovakia, but the reverse is true as between Palestine and Poland on the male side. Generally there appears to be a tendency among the Jews in Palestine to produce a higher proportion of female offspring. In the middle period of life, 15-40 years, Palestine takes first place, as is to be expected, having regard to the immigrant character of the population. In the ages 40 years and upward the Jews of Palestine are still deficient, this feature again being a consequence of immigration, the bulk of the immigrants still being at ages in the middle period of life.

(d) General remarks.

110. Some time has been expended on the discussion of the statistics arranged according to religious confession, because, unless the characteristic features of the three principal communities are fully understood, it is not possible to appreciate the significances of the age and sex distributions in the districts and the towns. In summary the principal features of the distribution by religious confessions are set out below:—

- (i) *Moslems* — Population growing younger: not affected to a marked extent by migration.
- (ii) *Jews* — Population affected greatly by immigration in the ages 15-35 years: longevity greater than that of the Moslems.
- (iii) *Christians* — Population affected by special types of immigration reducing the reproductive capacity of the community as a whole; comparatively great longevity.

These main characters must be kept in mind in considering the age and sex distributions of districts and towns. On the whole the characters of the districts

are governed by the characters of the rural population which is dominantly Moslem, but the effects of the Jewish and Christian populations in the towns of Jerusalem, Haifa and Tel Aviv may be expected to be manifest: while the Jewish population of the plains of Esdraelon and Jezreel may be expected to influence the distributions for the Northern district. Of the towns, Nablus should give a predominantly Moslem picture altered by the special features of its parochial and economic existence, while Tel Aviv may be expected to give typical Jewish distributions.

111. The comparisons between the age distributions of males and females in the three districts and the age and sex distributions in the four towns show that the rural areas begin with a relatively high proportion of young children, the general deficiency of potential parents between the ages of 20 years and 35 years seen in the second section of the table¹ being counteracted by their relatively higher fertility. In general this feature is characteristic of the age groups up to 15 years to 20 years of age when the proportions of both males and females become higher in the towns than in the districts, for females particularly up to the age of 30 years and for males particularly up to the age of 35 years. These features may reflect a tendency to emigrate from rural areas to the towns in late adolescence. The town of Nablus, however, presents contrary features. It possesses a relatively numerous child population of the same order of proportion as that for rural areas, but it is deficient in both sexes in the principal reproductive years. The town of Nablus has had a very special history, but there is no evidence forthcoming to the effect that the people of that town have inherited a tendency towards heavy mortality in both sexes in late adolescence, although tuberculosis exacts its toll especially among women in the confined dwellings which are characteristic of the town. The most satisfactory explanation of the figures is that there is an emigration from Nablus of both young men and young women, either in the hope of a better economic existence elsewhere in Palestine or in search of greater amenities of life than this parochial town can offer. Nablus has, for long years, been the home of rigid Moslem traditions, so that its social life is naturally austere. Easy communications with the free life of other towns have probably made the uncongenialities of Nablus intolerable to the younger people who have departed elsewhere. The economic life of the place must also have declined. Its principal industry is the manufacture of soap for which it was justly famous in the Middle East. Competition from modern firms both within and outside the country has undoubtedly restricted the market for the Nablus preparations, and constitutes a serious threat to the existence of an important element of the economic background to the town. The younger people are forced therefore by economic pressure to find a livelihood elsewhere in Palestine.

The three districts.

CERTAIN INDICES BASED ON AGE DISTRIBUTIONS.

112. The expression "mean age" is to be taken literally as denoting the average age of those forming the population of a specific locality at a definite time. It is not to be confused with the "mean after lifetime" at a particular age or the average duration of life. It is of itself of no intrinsic importance but, provided that it is calculated in the same way for different sections of the population in different localities at different times, it provides a fairly useful index of comparison.

Mean and median age.

(a) Mean age.

¹ See page 126.

The following table gives the mean age for sections of the population of Palestine at the census 1931 :—

MEAN AGE IN YEARS.

Population	Persons	Males	Females
Total population	25.1	24.5	25.8
Moslems	24.6	24.0	25.3
Christians	26.6	25.4	27.8
Jews	26.0	25.7	26.4

The means were calculated by the standard method applied to quinquennial age groups of the ungraduated age distribution. It should be stated, however, that persons aged 75 years and over have been included in one group centralized about the age 77.5 years. This method assumes that the population in each age-group is clustered about the middle point of the age-group. In point of fact this assumption is not valid since rather more than half of the population of each age group lies in the earlier half of the age group. This, however, is of no great importance because, while the result is not a true mean, it is a valid index for comparison so long as it is calculated in the same way at different times for various sections of the population however these may be constructed.

In the introductory remarks at the beginning of this chapter it has been pointed out that since the return of ages is based on "last birthday", the age declaration is, on the average, six months too low. If true means had been sought it would have been necessary to calculate them on individual years in place of the quinquennial groups, and it would also have been necessary to add one half of a year to the results; but it is not necessary to take that course in calculating the mean on quinquennial grouping of ages, since it may be assumed that the clustering of ages at the mid-point of the five-year class provides the adjustments adequate for the purposes in view. The stream of the population from birth through all the ages maintains the mean age as a very slowly changing function over fairly large intervals of time.

The following comparative table throws some light on the significance of the age distributions in Palestine :—

Country	Mean age in years		
	Persons	Males	Females
India 1911			
Total population ... ..	...	24.7	24.7
Moslems ... ..	...	23.9	23.3
Christians ... ..	...	24.0	23.3
Bengal 1911			
Total population ... ..	...	23.8	24.0
Moslems ... ..	...	22.8	22.4
Christians ... ..	...	22.7	22.4
Bengal 1921			
Total population	23.1	24.1	24.0
Moslems ... ..	...	23.1	22.4
Christians ... ..	...	23.0	22.5
England and Wales 1911	28.6	28.0	29.1
England and Wales 1921	30.6	29.9	31.2
Germany 1911	27.4	...	...
France 1911	32.5	...	...
Union of South Africa 1911	26.1	...	...

It will be seen that taking Palestine as a whole the population ranks with eastern rather than western people when measured by the criterion of mean age. Both Jews and Christians, however, have the effect of westernizing the age distribution. As has been seen in the section of this chapter in which discussion of the community age distributions is found, the proportion of children in these two communities is deficient in comparison with that in the Moslem community. It is probable therefore that no great change in the mean age of the total population will be revealed at the next census: the preponderance of the Moslem population which appears to be growing younger may cause the index to be slightly smaller but this reduction may be counterbalanced by the effects of other factors in the other two communities.

The comparison between the two sexes shows that in every case the mean age of females is higher than that of the males. In part this may be due to the greater distortions introduced into the distribution of female ages through ignorance of age or understatement and overstatement at different periods of life. This observation applies particularly to the Moslem community, and it is possible that in the case of this community the difference between the two mean ages is somewhat smaller than that shown. A low mean age is generally an indication of great natural fertility and, since the mean age is fairly low for both Moslems, males and females, the natural fecundities of the two sexes are combined to give a great natural fertility of the Moslem population¹. The case is otherwise with the two other communities. The rule, however, is not absolute: a glance at the comparative table shows a very high mean age for France where the birth-rate has been low for many decades, but it also shows a fairly high mean age for Germany in 1911 in spite of the fact that the birth-rate of that country during the preceding decade was higher than that of most European countries. Moreover the effect of immigration into the Jewish and Christian communities is to raise the level of the mean age so that as between communities the indices are not strictly comparable. Immigration is, of course, partly responsible for reducing the proportion of young children in these two communities—a feature discussed in the preceding section of this chapter.

113. The median age divides the population into halves, one half being at ages below the median and the other half at ages above the median. The following table gives the median age for the total population and for the three principal communities:—

(b) The median age.

MEDIAN AGE IN YEARS.

RELIGION	Calculated on individual years			Calculated on quinary age groups		
	Persons	Males	Females	Persons	Males	Females
All religions	21.59	20.75	22.59	22.35	21.41	23.26
Moslems	20.60	20.11	21.38	21.45	20.25	22.73
Christians	22.86	22.13	24.17	23.41	22.06	24.37
Jews	24.30	24.30	24.31	24.25	24.25	24.25

The median, like the mean, may be taken to be a measure of natural fertility. In France the median age in 1911 was 35 years, revealing a marked deficiency in the proportions of persons at the early ages of life.

¹ Following Professor R. Pearl, "Medical Biometry and Statistics"—1930—I use the term "fecundity" to designate the potential reproductive capacity of the individual organism as denoted by its ability to form and separate from the body mature germ cells; and the term "fertility" to designate the total actual reproductive capacity of pairs of organisms, male and female, as expressed by their ability when mated to bring to birth individual offspring. It seems natural, therefore, to speak of the fecundity of each sex and the fertility of the population of both sexes.—E.M.

The following table gives the median ages of different groups of population in the United States of America 1910:—

MEDIAN AGE IN YEARS.

	Persons	Males	Females
Total population	24.0	24.6	23.5
White, native-born	21.4	21.5	21.3
White, foreign-born	37.1	36.7	37.6
Negroes	20.8	21.1	20.6
Indians	19.1	19.2	19.0

It will be seen that the foreign-born white population, that is, the immigrant population has a very high median compared with the median ages of the native-born population.

Natural fertility.

114. Subsidiary Table No. *IV* gives the proportion of children under ten years of age and persons aged 60 years and over to persons aged between 18 years and 45 years in each community; and also of married women at ages 18–45 years to females at all ages. These measures are indices of natural fertility and longevity. The proportion of children under ten years of age to married women aged between 18 years and 45 years, that is those who are in the period of the reproductive life of a woman, furnishes a specific index which is a fairly sensitive measure of fertility. The main interest in the figures lies in the comparisons among the three principal communities. The indices in respect of the whole population are not a good measure in these respects because, as will be seen in a later chapter, there is a considerable proportion of the male population unmarried up to the age of 30 years; and the age group 18–45 years has been affected by the war: there are, moreover, disturbing factors introduced into the Jewish measure by an immigration between the ages of 15 years and 35 years. It will be observed that the proportion of children under 10 years of age to married women is highest in the Christian community and most emphatically lowest in the Jewish community. The number of children contributed by the foreign elements of the Christian community may be assumed to be small: so that the proportions stated represent with a high degree of accuracy the fertility of the local Arab Christian wives. The indices of the Christian community reveal in a marked degree the biological persistence of a small minority population surrounded by influences that were, on occasion, inimical to its existence. The low index for the Jewish community indicates a low fertility which may be due to deep social causes or may be an indication of the deliberate control of parenthood. There is, indeed, some ground for supposing that the birth-rate among Jews is not a natural birth-rate, but a birth-rate of first-born children, the difficulties of economic life in Palestine for immigrants introducing an element of conscious caution in the production of offspring.

Longevity.

The proportions of persons of each sex aged 60 years and upward to the persons in the reproductive period of life are given in the table which has been under discussion in regard to fertility. The figures, however, are not very reliable there being a distinct tendency among the Moslems at the latter ages of life to exaggerate the number of their years¹. In all three communities, in common with experience elsewhere, the proportion of females in the latter ages is greater than that of the males. It is the fact that the Jewish community, of whom nearly two thirds are immigrants since 1918, has not yet established its tradition of longevity, and it may be anticipated that the next two decades will show higher proportions than are revealed in the statistics for 1931. The longevity of Christian females is marked but without a special study of the conventual population it is not possible to assign any reason for that feature.

¹ Five centenarians were returned of whom one claimed to be 140 years of age. Only one woman was returned as over 100 years of age.—E.M.

115. The discussion of the statistics of conjugal condition is given in a later chapter but the proportion of married women in the female population has a supreme influence on fertility which is determined by age constitution. Consequently the proportions have been given in the subsidiary table under discussion in respect of fertility. The notable feature of these statistics is the comparatively low index for the Christian community. The smallness of the proportion is, of course, due to the voluntary celibacy of a far from negligible proportion of the female part of that community. This confirms the view that the fertility of the local Arab Christian community is very high, although it will be shown later that the specific birth-rates indicate a higher proportion of progeny per married Moslem woman. The difference between the two communities in respect of birth-rate and in respect of the proportion of children is explained by a higher infantile mortality among Moslems.

Proportion of married women.

116. The subject of fertility is of absorbing interest and was made the object of a sample inquiry round about the date of the census. The results of that inquiry will be published later in a separate statistical bulletin¹. It is possible, however, to furnish another measure from the census returns themselves. Had the resources of mechanical tabulation been available a fairly complete analysis of the whole matter might have been made. As it is, the analysis is based on crude rates and suffers from the defects common to all observations based on crude rates. The function that will be used is the ratio:—

Relative fertility by sex and religious community.

Number of children under one year of age at date of census²

Number of married $\frac{\text{men}}{\text{women}}$ at the date of the census

as given by the absolute figures. This is a crude ratio and can only be made specific when calculated from dependency tabulations of the various categories of married men and women differentiated according to age, size of family, place of enumeration and occupation³. The ratio is comparable with that more commonly used in vital statistics namely:—

Number of children born in a year

Average number of married $\frac{\text{men}}{\text{women}}$ exposed to risk during the year

It will be seen that both numerator and denominator of the former fraction correspond to the similar functions composing the latter fraction but at a point of time six months later on the average. In each case the children under one year of age at the date of the census will have been born during the preceding twelve months and will be approximately six months old on the average at the date of the enumeration: but their numbers will be less than the full number born by the losses due to heavy mortality in the first months of life. The parents, male and female, will similarly be six months older on the average than they were at the births of their children and will similarly have been reduced by mortality. Against these losses in the parent class, however, must be set the reinforcement due to new marriages and to the immigration of married couples, so that the balance between losses and gains tends generally to an increase in the number of married men and women, so that the denominator of the fertility ratio under discussion will tend to be overstated though not to the same extent as the numerator is understated. So far as the resulting ratio is concerned, the two defects, a defi-

¹ I had hoped to publish the results with this report, but I had not completed the analysis when this book was set up in the press.—E.M.

² If the ratio be expressed per thousand it becomes a fertility index.—E.M.

³ General Report of the Census, England and Wales, 1921.

ciency in the numerator and an excess in the denominator, operate in the same direction and lead to an understatement of the fertility rate throughout. Very briefly, the function to be used is an indirect product of the census returns ; and it is important that from now onwards the function be calculated for specific ages by the authority responsible for the registration of births and deaths. There is no difficulty in the matter since the registering authority records at present the ages of the parents of a newly-born child but makes no use of the information so obtained.

The following table sets out the crude ratios calculated on the census figures :

RELATIVE FERTILITY

Population	All ages	
	Married males	Married females
All religions ... ..	.201	.190
Moslems ... ..	.218	.202
Christians ... ..	.197	.197
Jews ... ..	.143	.143

The ratios are vitiated to some extent by the fact that, as derived, they include step-children and ex-nuptial children ; the more correct method is not possible without the resources of mechanical tabulation. Notwithstanding this defect the figures are interesting as showing equal fertility for married males and females in both the Christian and the Jewish communities. It is equally remarkable that the fertility index of married Moslem females is less than that of married Moslem males. This disparity can perhaps be explained as the effect of plural marriages. The figures, inclusive of step-children, for England and Wales in 1921 where the fertility functions were calculated on all married men and on married women enumerated with their husbands are as follow :—

England & Wales	Married men	Married women enumerated with husbands
All ages ... ..	.098	.101
Under 20 ... ..	.337	.359
20 - 25 ... ..	.306	.310
25 - 30 ... ..	.248	.241
30 - 35 ... ..	.193	.181
35 - 40 ... ..	.136	.123
40 - 45 ... ..	.081	.058
45 - 50 ... ..	.308	.009
50 - 55 ... ..	.015	.001
55 - 60 ... ..	.006	...
60 - 65 ... ..	.003	...
65 - 70 ... ..	.002	...
70 - ... ..	.001	...

Tabulation by individual years shows that the maximum fertility ratio of the married men is .356 at the age of 19 years and of the married women .365 at the same age. Similar figures should be prepared for Palestine annually on the basis of the birth registrations and the ages of the parents therein recorded. The absence of the specific ratios by age makes it impossible to analyse the root cause of the differences between the fertility characters of the population of England and Wales and of the communities in Palestine. The crude ratios show that the fertility of Moslems of both sexes is on the whole (making allowance for plural marriages) more than double that in England : the fertility of the Christians is nearly double that in England : and the fertility of the Jews is about one and a half times that in England. It is also noteworthy that, while in England the fertility of the females is slightly greater than that of males at all ages, the fertility

of females in Palestine is either less than or equal to that of the males at all ages. This comparison, however, should not be pressed because the English figures relate only to children born in wedlock, while there is no means of distinguishing in the census figures of Palestine the ex-nuptial children. The reduction in the number of children which would occur if the illegitimate were excluded might very well be more than counterbalanced by the reduction in the number of married women among whom were undoubtedly included a number of unmarried mothers. This whole discussion must be left incomplete by reason of absence of data among which should be included durations of marriages, but the matter will be discussed more fully in the special statistical bulletin to which reference has been made.

Professor R. Pearl¹ has suggested that the term "vital index" be used to designate the measure of the condition of a population which is given by the ratio of births to deaths within a given time. He points out that "it may be fairly said that there is no other statistical constant which furnishes so adequate a picture of the net biologic status of a population as a whole at any given moment." If the ratio $100 \frac{\text{Births}}{\text{Deaths}}$ is greater than one hundred, the population is growing, and, so far as that goes, is in a healthy condition. If it is less than one hundred the population is not, in a biological sense, holding its own. Professor Pearl goes on to point out that depopulation may not actually be occurring if there is an adequate immigration to make good the deficiency of births; and that, while such a condition may not be sound in its biological aspect, it may be so when judged from a social standpoint. The index is a highly sensitive measure of the immediate biologic status of a population. The Swedish statistician Sundbärg had a similar conception in using the ratio $\frac{\text{Deaths}}{\text{Births}}$ which he regarded as a measure of civilization. In so far as prolongation of life and civilization are associated, Sundbärg's terminology is comprehensible; but civilization connotes a great number of factors, not all of them of biological significance, so that his term is not happily applied to a measure concerned only with a status assigned in an evolutionary sense.

The vital index.

Here again the vital indices for Palestine suffer the defects that, to the present time, they cannot be made specific as regards age. As in the case of the fertility ratios, all the necessary information is given at the time of the registration of births and deaths, for example the ages of the parents of newly born children and the age and sex of deceased persons, but the data are not collected and no use is made of the material accumulated in the offices and sub-offices of the registering authority.

The crude indices are, however, not without interest and they are set out below in the following table:—

Year	Vital indices of stated population			
	All religions	Moslems	Christians	Jews
1921 ...	174	165	212	242*
1922 ...	226	221	245	243
1923 ...	185	174	226	250
1924 ...	198	186	240	303
1925 ...	181	175	198	220
1926 ...	219	210	223	297
1927 ...	180	170	194	261
1928 ...	186	174	213	290
1929 ...	193	182	211	289
1930 ...	228	216	240	348
1921 - 1930 ...	196	186	219	276

*Includes Jewish and minor religions.

¹ R. Pearl, "Medical Biometry and Statistics"—1930.

The striking feature of the table of indices is the order of magnitude of the measure of evolutionary growth, the Moslems giving the smallest and the Jews the largest index. It must, however, be remembered that the Jewish population is largely immigrant in character and that the ages to which immigration is principally confined lie between 15 years and 35 years, ages which are not normally associated with deaths. If the indices could be made specific for the age groups throughout life significant information would be forthcoming as to the relative conditions of the community populations. The crude fertility ratios discussed in the preceding paragraph suggest that the Jewish population is not so favourably situated in a biologic sense as its vital index implies. This index may be maintained at a high level principally by means of immigration: specific indices might reveal totally different pictures of the situation in the early and the late years of life. It will, consequently, be of value to try, in the future, to determine specific vital indices annually in order that some idea may be obtained as to the future structure of the population of the country.

The effect of a special immigration is also perceptible in the case of the Christian community, but is, of course, not so strongly marked as in the case of the Jewish community because the volume of immigration is small in comparison with the magnitude of the Christian community, and preponderantly large in the Jewish community.

The following table¹ gives some details of vital indices of various elements in the populations of registration of the United States of America. Index A is the percentage ratio of:—

“births of whites of native parents” to “deaths of all native whites”;

Index B is the similar ratio for

“births of whites, both parents foreign” to “deaths of foreign-born whites”;

Index C is the similar ratio for

“births of negroes” to

“deaths of negroes”;

and Index D is the similar ratio for

“births of whites” to

“deaths of whites”.

Year	INDEX			
	A	B	C	D
1915 ...	117.8	252.4	91.4	180.7
1916 ...	116.3	234.1	94.2	171.6
1917 ...	148.1	205.2	114.3	179.8
1918 ...	118.8	151.8	93.7	140.6

These indices, of course, relate to the years of war and are not strictly comparable with indices of other countries calculated for years preceding or succeeding the war. Nevertheless, they show in striking manner in the second column the relatively high index attached to an immigrant population, and the comparative smallness of the index of a population which, foreign in origin, is establishing itself in the country of settlement.

The most important age specific vital indices are those determined for females in the quinary age groups from 10 years to 55 years. A classification should be made of native-born women and foreign-born women, and sub-classification can be introduced by communities under these two main headings. These indices can be compiled without difficulty in Palestine seeing that all the data are made available at the time of registration of births and deaths. The results plotted on logarithmic paper will not only be interesting but also valuable, exhibiting with great clarity the essential biological efficiencies of the different categories of women considered as reproductive machines at the different ages of life.

¹ R. Pearl. *loc. cit.*

117. The Swedish statistician Sundbärg showed, so long ago as 1899, that in all western countries the number of persons aged between 15 and 50 years is uniformly about one half of the total population, and that any variations which occur in the age constitution take place in the other two main groups 0-15 years and 50 years and over. Where the population is growing the number in the former group is markedly greater than in the latter, but where it is stationary the numbers in the two groups approach equality. On this basis there are thus three types of population, the progressive, the stationary and the recessive. Two other groups may be added namely the accessive and the secessive determined by migration which is normally confined to the age group 15 years to 50 years, so that perceptible immigration makes a population accessive in character while emigration makes it secessive. The mortality in the two terminal groups is far greater than an intermediate group, but it is approximately the same in both cases. It follows on this theory that variations in the relative size of the two terminal groups do not affect the total mortality which is thus independent of the age distribution. In applying this theory to Palestine regard must be had to the effect of the war on the central group: if this is borne in mind it will be seen that the theory generally holds good for the country, but the deviations in the communities are of interest. The details are given in the following table:—

Sundbärg's theory regarding age distribution.

NUMBER OF PERSONS PER 1,000 AGED 0-15, 15-50, 50- BY DISTRICTS AND RELIGION.
(Sundbärg's theory)

DISTRICT	All religions			Moslems			Christians			Jews		
	0-15	15-50	50-	0-15	15-50	50-	0-15	15-50	50-	0-15	15-50	50-
PALESTINE ...	393	479	128	415	458	127	344	509	147	326	549	125
Southern District ...	387	483	130	424	444	132	341	542	117	297	576	127
Jerusalem District ...	396	463	141	419	446	135	339	495	166	369	491	140
Northern District ...	395	486	119	409	473	118	351	510	139	324	573	103

The whole population and the three principal communities are of the progressive type of population, but the Moslems are very definitely the most progressive while the Jews are the least progressive. Having regard for the second column, that is, the proportion in the central group it is clear that the Jews also belong to the accessive type of population. The Moslems appear to belong to the secessive type, but this feature is a reflexion of the effects of war which are still manifested strongly in the latter part of the central group between the ages of 35 years and 50 years. It is obvious that the wastage caused by war conditions will be effectively made good during the next decade. In a book¹ published in 1923 a map of the world showing the rate of natural increase per annum in different regions is published wherein Palestine is assigned to the class in which the natural increase is given as 3-6 per thousand. It is not clear on what data this assignment was made, but it is obviously not supported by post-war statistics in Palestine; and it seems probable that the compilation on which the map was based was constructed on such pre-war statistics as were available. If that be the case, the population of the country before the war must have been of the stationary type, and the post-war conditions have made it both progressive and in part accessive. No sociologist or economist will be surprised to learn that so a profound a change in tradition has not been unaccompanied by a certain amount of social discomfort, arising from mal-adjustments due to the different rates of change in the various social economic functions involved. Such changes involve rhythms, the nature of which is at best only imperfectly understood; and the adjustments of the *tempo*, to borrow a musical term, of each rhythm to every other rhythm within the social

¹ East, E.M. *Mankind at the Crossroads*. Scribner's & Sons, 1923.

nexus, is a process so complicated that perfect resolution is not be expected in a short interval of time. The following table showing the proportions of persons under 15 years of age in 1922 and 1931, illustrates the matter to some extent:—

POPULATION AGED UNDER 15 YEARS.

(Per 1,000)

Sub-districts and Towns	Males		Females	
	1931	1922	1931	1922
PALESTINE	406	396	379	346
Gaza Sub-district	448	430	410	362
Hebron Sub-district	453	420	408	351
Jerusalem Sub-district	395	374	362	345
Ramallah Sub-district	439	405	377	315
Tulkarm Sub-district	418	420	383	346
Jenin Sub-district	429	415	383	331
Nazareth Sub-district	425	418	386	362
Beisan Sub-district	368	370	374	348
Tiberias Sub-district	415	393	388	369
Haifa Sub-district	363	367	373	360
Acre Sub-district	370	404	371	358
Safad Sub-district	433	424	393	378
Jerusalem Town	369	347	394	348
Jaffa and Tel Aviv	344	316	333	334
Jaffa	387	...	290	...
Tel Aviv	291	...	273	...
Haifa Town	326	309	349	337
Nablus Town	451	388	404	340
Nazareth Town	506	433	431	354

The table is particularly interesting in showing a relative increase in respect of females which is larger than that in respect of males. At this stage of the analysis it is only possible to suggest that this phenomenon may represent a tendency to reduce the masculinity of the population or it may indicate a deficiency in the enumeration of young females in 1922.

An index of economic capacity.

118. Dr. G. von Mayr¹ made the suggestion that a population should be divided into three groups by age in order to establish comparisons between the economically productive and non-productive parts of that population. The groups which he suggested are:—

- (i) Those aged 20–60 years assumed to possess the full capacity to work.
- (ii) Those aged 15–20 years and 60–70 years having partial (assumed to be one half) capacity to work.
- (iii) Those aged 0–15 years and 70 years and over assumed to be non-productive.

On this basis, the proportions of the populations in Palestine are given below:—

Group	All religions	Moslems	Jews	Christians
I.	471	453	530	491
II.	106	99	120	131
III.	423	448	350	378

¹ *Statistik und Gesellschaftslehre*—Tübingen, 1924.

The preponderance of the productive elements in the Jewish community is, of course, due to the immigration of able-bodied persons in the ages 20–40 years. The other significant feature is the large proportion of persons in Group III in respect of the Moslems. As has been shown in the paragraph concerned with longevity the proportion of the aged among the Moslems is small, so that a high proportion of Moslem children are entering the ages of economic capacity, and there must naturally be consideration of the development of natural resources at a rate sufficiently high to enable full use to be made of these growing capacities.

VITAL STATISTICS.

119. The statistics of vital occurrences are published annually by the Department of Public Health. Not only are they of value in themselves as being a current account of the vital movements of the population, but they are of material assistance in helping to elucidate census information, the census being a closure of accounts for the intercensal period. The registration area of births and deaths is Palestine excluding the sub-district of Beersheba. The annual statistics are based upon an estimated mid-year population determined on the actual number of births and deaths recorded during the preceding twelve months and on the migration records supplied by the Department of Immigration. Still-births are not now included in the registrations of births and deaths. There is ground, as has been shown in the preceding sections of this chapter, for supposing that the registrations of births are defective among the Moslems: on the other hand, a certificate is required for the burial of deceased persons so that it is held with confidence that the registrations of deaths are fairly complete. The statistics suffer the defect that no distinction by sex has been made, but it has been possible to search the original registers for the past nine years¹ and to compile the statistics on the basis of sex. The absolute figures will be found at the end of Chapter VI (Sex). At the end of this chapter will be found Subsidiary Table No. V in which are set out the rates actually declared by the Department of Health together with corrected rates for 1931. These corrected rates are set out by sex and religious community. General.

The declared general birth and death-rates are all higher than they should be, because the census population of 1922 while accurate in aggregate assigned too great a number of nomads to Beersheba sub-district, so that the population of the registration area has been under-estimated throughout the series of years 1922–1931. On the other side, the rate of natural increase is not greatly changed by taking the mid-year estimated populations at figures more in agreement with the facts.

The corrected rates for 1931 have been calculated on the census population of 1931 and the vital occurrences of that year have not been related to the estimated mid-year population. The correspondence between the population of the registration area and the settled population is not perfect since the registration area includes a number of nomads from the sub-districts of Gaza, Hebron, Bethlehem, Jaffa and Ramle who were not enumerated in the settled population. On the other hand, the number of these nomads is small and it is improbable that the registration of births and deaths among them is anything but highly defective: moreover, some compensation is introduced by the fact that the settled population of Beersheba is included in the settled population for Palestine. The combined effect of these two disparities between the two basic populations is to give almost complete identity to the settled population and the population of the registration area, for the purpose of establishing corrected general rates.

120. The corrected crude birth-rate for Palestine 1931 is 47.7 births per thousand of population: or 48.9 per thousand males and 46.5 per thousand females. The Crude and specific birth-rates.

¹ I am greatly indebted to the officers of the Department of Health who expended much time and labour on this necessary work.—E.M.

male and female birth-rates among the Moslems are 54.4 and 51.9 respectively¹: among the Jews the rates are 32.6 for males and 31.0 per females: while the Christians return 37.1 for males and 35.5 for females.

Specific birth-rates have been calculated by taking the number of births per thousand married women aged 15-45 years and 15-50 years. Taking as basis the population of married women aged 15-45 years, the birth-rates (both sexes) for Moslems, Jews and Christians are 317,199, and 286 respectively².

121. That the birth-rates of Moslems and Christians are very high and that of the Jews fairly high may be judged from the following comparative table:—

GENERAL AND SPECIFIC BIRTH-RATES IN DIFFERENT COUNTRIES.

Country	Year	Number of births per 1,000 persons	Number of births per 1,000 married women aged	
			15 - 45	15 - 50
			1923 - 1924	1920 - 1921
Sweden	1930	15.4	173	168
England and Wales	1930	16.3	152	149
Switzerland	1930	17.2	178	155
Germany	1930	17.5	148	168
France	1930	18.1	142	...
Belgium	1930	18.6	161	141
Finland	1929	21.0	236	205
Holland	1930	23.0	241	211
Italy	1930	26.2	259*	...
Spain	1930	29.0	245*	202
Rumania... ..	1930	35.0	...	...
Egypt	1930	43.7	...	...
Palestine	1931	...	...	...
All religions	"	47.7	294†	272†
Moslems	"	53.2	317†	294†
Jews	"	31.8	199†	184†
Christians	"	36.5	286†	261†

*1921 - 1922

†1931.

The maximum declared birth-rate for all communities is to be found in the year 1928 (the Jews have another maximum in 1925) and though the figures are higher than they should be it is clear that there is a faint tendency of decline in the birth-rate among the Moslems and the Christians, and a fairly well-marked tendency of decline in the birth-rate among the Jews. The decline among the Jews is probably real since immigration reached its peak in the years 1925-1927 and has been maintained at low levels since 1928. The corrected rates by sex show that the male birth-rate is higher than the female birth-rate for all communities. This is due to the fact common to the whole world that boys are born in greater number than girls³.

¹ Probably higher since as has been shown in paragraph 119 there is defective registration of births among Moslems.—E.M.

² Compare the observations given above in respect of fertility and fecundity.—E.M.

³ The question of masculinity at birth is discussed in Chapter VI (Sex).—E.M.

122. The statistics confirm the general characters of the age distributions hereinbefore discussed. The important fact is that the Moslems and the Christians are creating a progenitive population at considerably higher rates than the Jews. It is not possible to forecast, in the circumstances of Palestine, the general effects of these movements; but there seems to be a hiatus between the present progenitive generation of Moslems and the succeeding generation. If that be the case it is probable that birth-rates among the Moslems will decline for a few years, and, provided that other factors do not operate, will then again increase. Among other factors which are operative in controlling birth-rates are economic circumstances; epidemic disturbances; infantile mortality, in that when it is heavy the mothers are exposed to recurrent risks of child-birth earlier than would be the case when infantile mortality is light; and migration. Whatever be the effects it is clear that the birth-rate among Moslems is very much higher than that in European countries and the experience of those countries suggests that the present rate cannot long be maintained¹.

123. The declared general death-rates for the period 1923–1931 are set out in Subsidiary Table No. V wherein corrected rates for sex and religious communities for the year 1931 will also be found. Death-rates.

The general crude death-rates (corrected) for 1931 are 26.2 for male Moslems, 25.7 for female Moslems; 9.6 and 9.2 for Jewish males and females; and 14.6 and 14.2 for Christian males and females. These rates approximately give the Jewish and Christian communities the same rate of natural increase (about 22 per thousand persons) at the present time, the Moslem rate of natural increase being between 27 and 28 per thousand. Since immigration is of no account among Moslems there is, therefore, a tendency not to maintain the annual rate of increase manifested over the period 1922–1931. The standardized death-rates are given in the following table:—

STANDARDIZED DEATH-RATE PER THOUSAND OF POPULATION 1931.

Religion	Persons	Males	Females
All religions	21.51	21.77	21.29
Moslems	25.69	25.92	25.51
Jews	9.29	9.63	9.02
Christians	13.82	14.30	13.44

They do not differ materially from the crude rates because the actual age composition of the standard population is almost identical with that of actual population. The age-groups adopted in the declared general rates are not well adapted for the determination of the standard death-rates: the groups 10–20 years, 20–50 years and 50 years and over are too large to enable significance to be given to mortality occurring as a result of early childbirth or the onset of senility. In order to obtain some idea of the mortality in Palestine, standardized rates based on the standard population of England and Wales 1901 have been calculated and are given in the following table:—

STANDARD DEATH-RATES ON ENGLISH STANDARD MILLION 1901.

Country	Year	Religion	Standard death-rate		
			Persons	Males	Females
England and Wales ...	1913*	...	15.6	...	...
	1924–1926†	...	...	11.6	9.5
Palestine	1931	All religions ...	17.5	...	...
		Moslems	19.5	...	...
		Jews	9.5	...	...
		Christians	13.2	...	...

*Newsholme—*Vital Statistics*, 1921.

†Bowley, A.L.—*Elementary Manual of Statistics*.

¹ See also Chapter II (Movement of population) in regard to growth of population and resources —E.M.

The difference in favour of England and Wales as against the Moslem population is due to the differences between the age constitutions of the two countries. There is a larger proportion of young children in the Palestine population and it is from this population that the greater proportion of deaths arises. If infantile mortality in Palestine were reduced to the dimensions of that in England it would be found that the mortality among Moslems in Palestine is not abnormal¹ in the adult ages, although people do not as yet reach the old ages characteristic of populations of western Europe. The Jewish population, being largely composed of immigrants physically selected, lies preponderantly in the ages 15-50 years in which mortality is small; to some extent this observation applies also to the Christian community, and, hence, the standardized death-rates for these communities are lower than those shown for England and Wales.

124. This consideration leads at once to a discussion of the distribution of mortality between the sexes and through the ages. The following table gives the age and sex specific death-rates for the year 1931 and also the ratio of the female death-rate to the male death-rate in each age group. This ratio is illustrated in Diagram No. 18.

DEATH-RATES 1931 ACCORDING TO AGE AND SEX BY RELIGION

AGE	Death-rates per 1,000 males or females						Ratios of female to male death-rate		
	Moslems		Jews		Christians		Moslems	Jews	Christians
	Males	Females	Males	Females	Males	Females			
0 - 1 ...	218.300	215.700	77.320	99.350	141.300	159.910	.9881	1.2849	1.1319
1 - 2 ...	106.000	114.100	25.450	29.870	45.810	47.350	1.0764	1.1737	1.0336
2 - 5 ...	48.690	50.070	6.441	5.646	13.980	14.290	1.0283	.8766	1.0222
5 - 10 ...	7.008	7.100	2.144	1.017	4.147	2.515	1.0131	.4743	6065
10 - 20 ...	4.282	4.670	1.872	1.494	2.997	2.623	1.0906	.7981	.8752
20 - 50 ...	7.261	6.620	3.270	2.734	4.932	4.297	.9117	.8361	.8712
50 - ...	29.250	24.070	33.560	27.190	34.130	27.360	.8229	.8102	.8016

- (i) The present registration area of Palestine excludes Beersheba sub-district.
- (ii) The living population is taken as the population living at declared ages at the census 1931. There is not, however, perfect correspondence between the population of the registration area and the settled population which has been taken as the basis for the calculations of this table. The population of the registration area includes nomadic populations of the sub-districts of Gaza, Hebron, Bethlehem, Jaffa and Ramle, in respect of whom no ages were returned at the census. The aggregate of these nomadic populations is however small and no great error is caused by the lack of complete correspondence required for complete accuracy. It is also probable that registrations of births and deaths in these nomadic populations is greatly defective, so that the calculations may be more accurate on a defective basis than on the basis of complete correspondence. The small population of Beersheba town is included in the census population taken as the basis, and this also compensates for the non-inclusion of a proportion of the nomadic population outside the Beersheba sub-district.
- (iii) The persons whose ages are not recorded at the census and the deceased persons whose ages are unknown at death have been included in the ages 50 years and upward. This is probably correct for Moslems and Christians, but it is likely that the Jews who made no age return at the census were in the age group 20-50 years.

There are several very interesting features in the table. In the first place the distribution of deaths through the ages for each sex is of universal form known as the U-shaped distribution. The concentration of deaths at ages above 50 years in one group does not reveal the very rapid rise in mortality from the age of 60 years and upward: neither does the concentration of deaths in one closed group 20-50 years reveal the effects of the female climacteric; moreover, the age group 10-20 years conceals the possible effects of early childbirth on female mortality in the ages 15-20 years. Nevertheless the general distribution both for males and females is not typical. The comparison between the male and

¹ As far as comparison is possible with incomplete data, the Moslem mortality in Palestine at ages 1 year and over is about the same as that in France, Spain and Portugal and is less than that in certain of the south eastern states of Europe.—E.M.

female distributions reveals, however, that in 1931 contrary to experience elsewhere the female infantile mortality was most emphatically higher in the Jewish community and markedly higher in the Christian community than the male infantile mortality. In the Jewish community for every thousand infants aged under one year enumerated at the census 77 boy babies had died during the year and 99 girl babies. In the Christian community the numbers were 141 boy babies and 156 girl babies per thousand infants living at the date of the census. The usual experience is, of course, that male infantile mortality is greater than female mortality (indeed the rule holds generally from the time of conception until old age, still-births being preponderantly male and the mean after-lifetime of survivors at any age being slightly longer for females than for males). With small populations fluctuations representing departures from general rules are bound to appear and must not be taken as reversals of those general rules which are established on the basis of very large numbers. At the same time, there appears to have been a very heavy loss of female infant life in 1931 in both these communities and the matter should be investigated in order to ascertain if there were some infantile disorder in that year which was definitely selective of female infants. Disregard of female life is certainly not characteristic of the Jewish and Christian communities as a whole. It is known that some of the Jewish oriental communities hold women in low regard, and, among them, the births of girls are regarded as misfortunes. It is probable that among these people there is positive neglect of female infants. The same may be said, perhaps, of the lowest strata of the local Christian community.

Having regard, now, to the comparison between the sex mortality distributions of the Moslems, it will be noticed that the ratio of female mortality¹ to male mortality exceeds unity from the age of 1 year up to the age of 20 years, the relations in infantile mortality obeying the general rule already mentioned. It will be remembered that the discussion on the curves of the Moslem age distributions led to the conclusion that the lower proportions of females living between the ages of 2 years and 18 years were due to a mortality at those ages which was heavier among females than among males. That conclusion, reached after an analysis of the age distribution, is strikingly confirmed by the ratios between the age-specific male and female mortalities in 1931. Generally, making allowance for the growing population, there is a constancy about the declared mortality rates among Moslems during the last six years that indicates that the year 1931 is not exceptional in the mortality distributions for that year. It may be inferred that, while age specific death-rates are not calculable for the years prior to 1931, the relative mortalities of 1931 are typical of the whole series; and that, therefore, the deficiency of females in the whole Moslem community may be traced to the heavy wastage of female life during childhood, adolescence and the early reproductive period. The Moslem curve in Diagram No. 18 cuts the axis of unity at the age of 25 years. This is due to the unequal grouping of the ages, the ratio in the age group 20–50 years being concentrated at 34–35 years. A longer series of observations with a regular grouping of occurrences of death in quinquennial age groups would permit a smooth curve to be drawn, and it is probable that this smooth curve would cut the axis of unity near the ages 18–20 years.

Hence the curves of the age distributions conform remarkably well with the actual situation revealed by the mortality statistics. It remains to be iterated that a change of social opinion and a reversal of tradition are required to prevent the wastage of Moslem female life in childhood and early womanhood.

125. The annual infantile mortality (both sexes) for the period 1923–1931 is to be found in Subsidiary Table No. VI at the end of this chapter. In the preceding paragraph it appeared that the specific death-rates for infants aged under 1 year

Infantile mortality.

¹ For a discussion of masculinity of population, see Chapter VI (Sex).—E.M.

in 1931 revealed a heavier female than male infant mortality in the Jewish and Christian communities, but that this phenomenon might be caused by fluctuations due to the smallness of the populations considered. Consequently in the following tables are given the infantile mortalities¹ by sex for the period 1923-1931 :—

NUMBER OF DEATHS OF INFANTS PER 1,000 BIRTHS.
PALESTINE 1923 - 1931.

	All religions	Moslems	Jews	Christians
Persons	160	171	99	148
(a) Males	164	176	103	144
(b) Females	156	166	95	153
(a) \div (b)	1.051	1.060	1.084	.941

It will be seen that, taken over a period of nine years, the Jewish experience is not contrary and that the Christian experience is contrary to the universal rule. On the other hand the following comparative table shows that the ratios of male infant mortality to female infant mortality are very considerably higher in European countries than in Palestine :—

NUMBER OF DEATHS OF INFANTS AGED UNDER ONE YEAR PER 1,000 BIRTHS.

Country	Males	Females	Unit ratio of infantile male mortality to infantile female mortality	
			Period in years	
Germany	134.3	109.9	1921 - 1925	1.22
Switzerland	72.6	57.2	1921 - 1925	1.27
France	105.6	84.5	1921 - 1925	1.25
England and Wales	85.6	66.0	1921 - 1925	1.30
Finland	103.9	86.8	1921 - 1925	1.20
Italy	133.0	118.3	1921 - 1925	1.12
Palestine :			1923 - 1931	
All religions	164	156		1.05
Moslems	176	166		1.06
Jews	103	95		1.08
Christians	144	153		.94

There seem to be alternative inferences which are not mutually exclusive : first, there is a general neglect of female infant life ; secondly, there are infantile disorders which are selective of female infant life in Palestine to a degree not manifest in other countries. There is considerable evidence to support the former inference : it is for physicians to examine the second alternative bearing in mind that, even if there be disorders specially selective of female infant life, this selectivity may itself be caused by impoverishment due to neglect, the well-nurtured female child being able successfully to resist attacks.

¹ The specific death-rate is given by the ratio of deaths to persons living at the same age. The infantile mortality is given by the ratio of deaths of infants to births of infants in the same period.—E.M.

126. There are other aspects of infant mortality that deserve attention, namely the ratio of infant mortality to total mortality by sex, and the sex-ratio of these ratios. The details for the period 1923–1931 are given in the following table:—

UNIT RATIO OF INFANTILE TO TOTAL DEATHS ACCORDING TO SEX.

	1923	1924	1925	1926	1927	1928	1929	1930	1931
MOSLEMS :									
(a) Males ... ..	.2977	.3293	.3051	.3077	.3337	.3232	.3408	.3394	.3499
(b) Females ... ..	.2888	.3282	.3008	.3068	.3193	.2965	.3256	.3189	.3359
(c) (b) ÷ (a) ... ..	.9701	.9967	.9971	.9971	.9568	.9174	.9554	.9396	.9600
JEWS :									
(a) Males ... ..	.3227	.3278	.2901	.3441	.3192	.2831	.2573	.2365	.2462
(b) Females ... ..	.2852	.3187	.2929	.2921	.2879	.2642	.2585	.2416	.3038
(c) (b) ÷ (a) ... ..	.8838	.9722	1.0097	.8489	.9019	.9332	1.0047	1.0216	1.2340
CHRISTIANS :									
(a) Males ... ..	.2749	.3606	.2952	.3294	.3700	.3010	.3285	.2838	.3199
(b) Females ... ..	.3000	.3475	.3085	.3447	.3431	.3386	.3259	.3377	.3442
(c) (b) ÷ (a)	1.0913	.9637	1.0451	1.0464	.9273	1.1249	.9921	1.1899	1.0760

Infantile deaths are here taken to be deaths of infants of less than one year of age.

The figures on lines (a) and (b) are the ratios of the annual numbers of male and females infantile deaths recorded to the annual of total male and female deaths recorded respectively

The figures on lines (c) are the ratios of the female to the male ratios.

and are illustrated in Diagram No. 19. The trends of the ratios of infantile to total mortality are easily seen by reference to the quinquennial means of the ratios illustrated in the diagram by squares, lozenges, circles and so on. The trends of the Moslem and Christian curves are upward, while the trends of the Jewish curves are downward. An upward trend may be caused by either:—

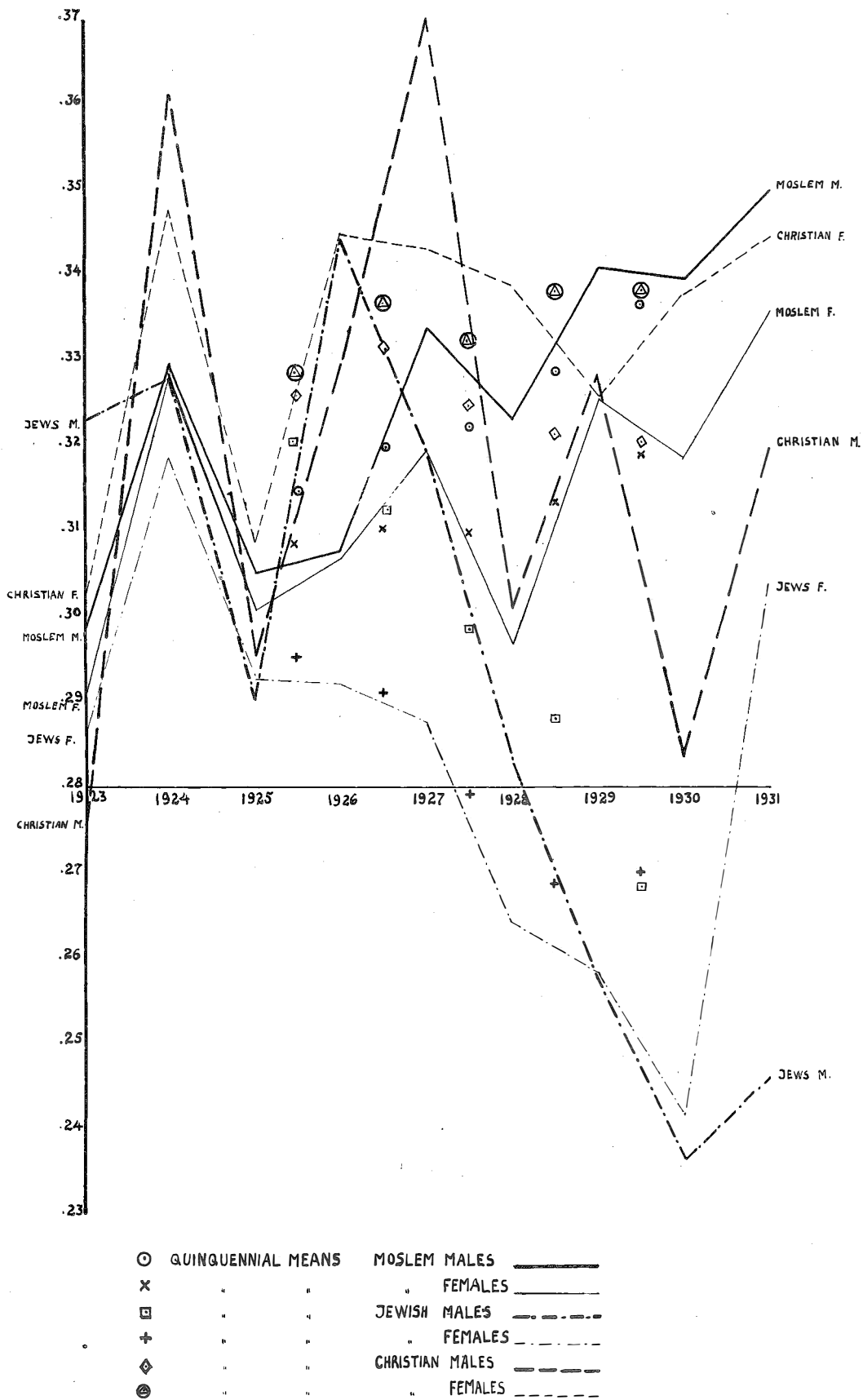
- (i) an increase in infantile mortality ; or
- (ii) a diminution of total mortality ; or
- (iii) a diminution of both, the diminution of the total being greater than that of the infantile mortality ;
- (iv) an increase in both, the increase in infantile being greater than the increase in total mortality.

A downward trend may be caused by either:—

- (i) a diminution in infant mortality ; or
- (ii) an increase in total mortality ; or
- (iii) an increase in both, but the increase in the total being greater than the increase in the infantile mortality ; or
- (iv) a diminution in both, the diminution in the total being less than the diminution in the infantile mortality.

Examination of the Subsidiary Tables at the end of this chapter, giving the general death-rates and the revised infantile mortality rates, is not highly illuminating ; but, on the whole, by taking quinquennial means it will be seen that the Moslem infant mortality has a very slight upward trend for the period 1923–1931, and no exact inference can be made as to the mortality at ages exceeding one year : but, since the upward trend of the infantile mortalities is very slight and almost stationary, it is probable that the mortality at ages of 1 year and upward has diminished slightly during the period 1923–1931. It is therefore necessary to determine approximately the mortalities at ages 1 year and upward in order to ascertain the trends over the whole period. Subsidiary Table No. VII gives the trend of mortality at ages 1 year and upward since 1925, and it will be seen that there is a close correspondence between the conclusion, suggested by the trend

RATIO OF INFANTILE TO TOTAL DEATHS



of the Moslem ratio of infantile to general mortality, and the movement revealed by the table in respect of mortality at ages of 1 year and upward.

Infantile mortality in the Christian community shows a practically stationary trend for males and a slightly upward trend for females in the period 1923–1931, and it may be inferred that the mortality at ages over 1 year has lessened, an inference confirmed by the movement revealed in Subsidiary Table No. VII.

Taking quinquennial means for the Jewish infantile mortality there is a downward trend for both sexes showing an improvement in infantile mortality in the period 1923–1931, somewhat markedly interrupted in the case of females by a sudden rise in 1931. There is also a downward trend in the general mortality among Jews over the period, but it is not so marked as that in the infantile mortality: but Subsidiary Table No. VII showing the movement of mortality at ages of 1 year and upward reveals a well marked downward trend. It may, therefore, be inferred from the steepness of the downward trend of the ratio between infantile and general mortality that the decline in infant mortality among Jews is greatly steeper than that of the decline in the general mortality. Now the Jewish population is preponderantly immigrant in character; that is, it is dominated by a population between the ages of 15 and 50 years, in which period the force of mortality is practically inoperative; it follows that, as was to be expected, the general death-rate of the Jewish population is low and has diminished during the period as a consequence of the immigration of a selected population¹. While the downward trend of the ratio between the infantile and total mortalities implies that the diminution of the infantile mortality is greater than the diminution of the total mortality, it must be remembered that, as the immigrant population passes into the later years of life, the general rate of Jewish mortality will increase until this community acquires the mortality associated with a normal age distribution; and, provided that the infantile mortality does not increase at a faster rate than the general mortality, the ratio between the two will still manifest a downward trend. Until the general death-rates for Jews are normal, it must not be inferred from the continuing downward trend of the ratio of infantile to total mortality that all is necessarily well with infant life. It will always be necessary to examine infant deaths in relation to births and in relation to the living population of infants aged under 1 year before future conclusions are reached as to infantile health.

NOTE ON GRADUATION OF AGES.

I am aware of the defects in the graduation of the ages declared at the census. I tried various methods. For the range 15–80 years the method of interlaced parabolas² and that of Whittaker and Aitken³ both appear to give satisfactory results. After the age of 30 years systematic distortion was, however, evident for the resolution of which graphical methods were required. In the application of the latter method there was great difficulty in determining the best “smoothing co-efficients” for different parts of the age distribution. It would have been better to have attempted the computations on the logarithms of the frequencies at the individual ages: but the time expended on trials exceeded that which I had allotted for the analysis of the statistics of age. Since the refinement required for a general description of the age constitutions is not of the high order required for mortality tables I fell back on Spencer’s summation formula and then smoothed the systematic distortions after the age of 30 years by a system of moving averages. Spencer’s formula is not sufficiently powerful for age returns exhibiting the violent fluctuations characteristic of the Palestine age functions. Another difficulty was presented by the later ages: a sample sorting showed that the concentrations at the even multiples of 5 years amounted to saturations with gaps in the series of ages. Such a result was inevitable with a small population in which persons are generally ignorant of their ages.

The general analysis of error suggests to my mind the possibility of introducing harmonic terms into the three component equations of the age distributions, with a view to annulling the cyclical errors appearing in the crude returns.

¹ There was a tendency in 1931 for the general mortality among Jews to increase.—E.M.

² Journal of Institute of Actuaries. 53 (1922).

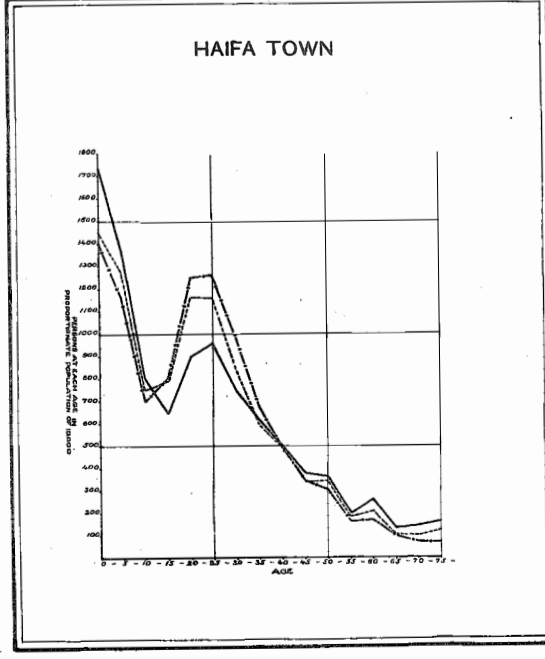
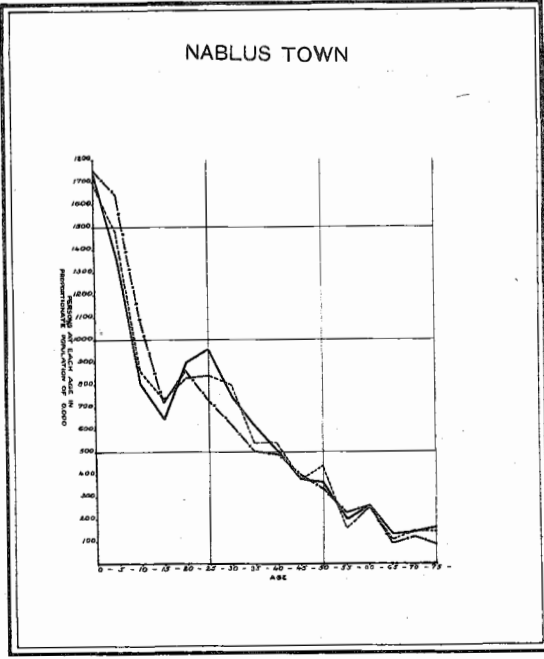
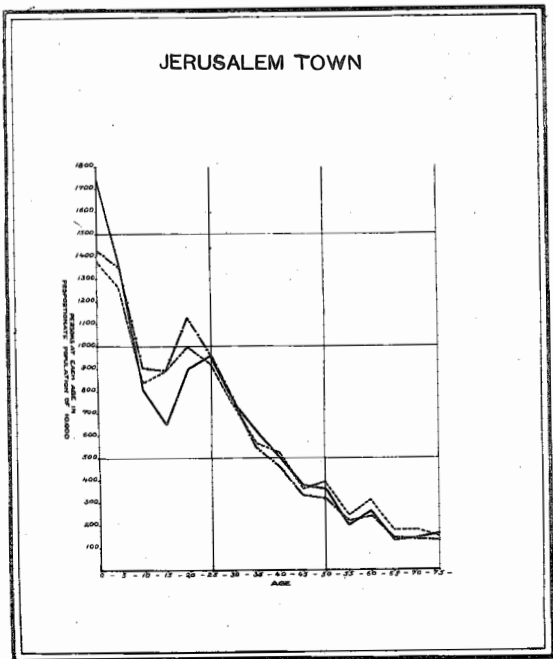
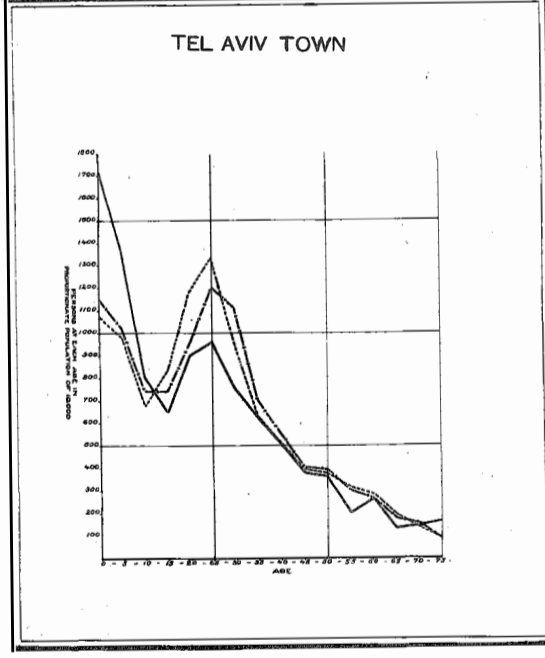
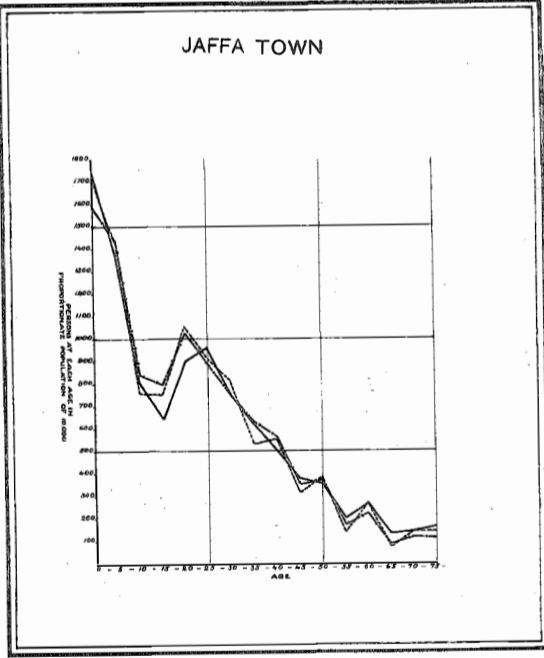
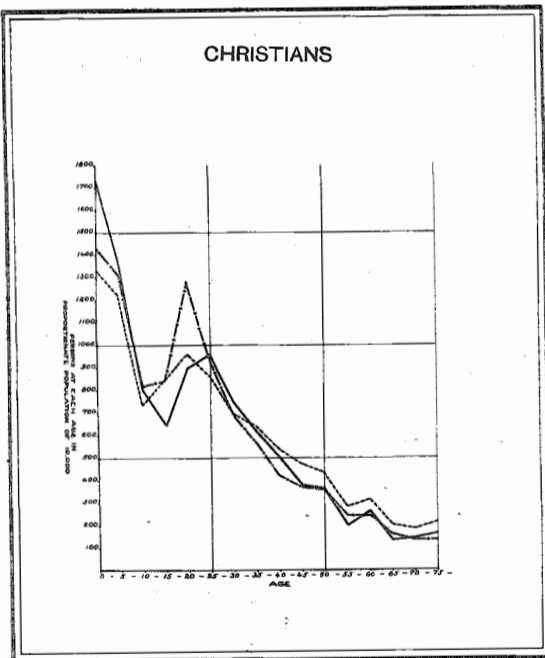
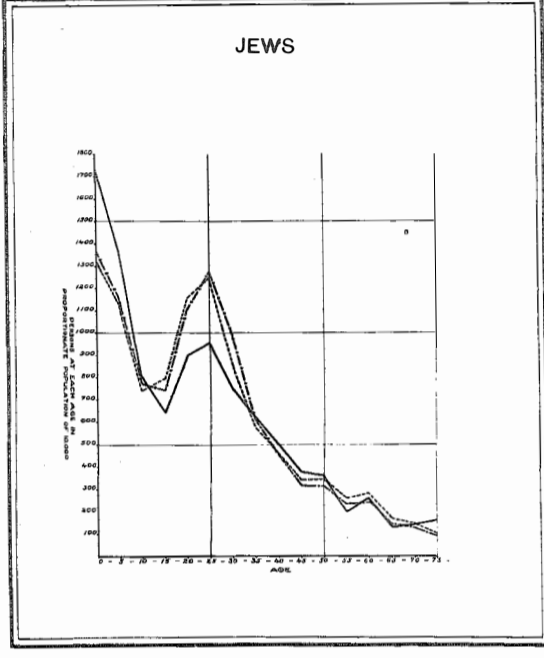
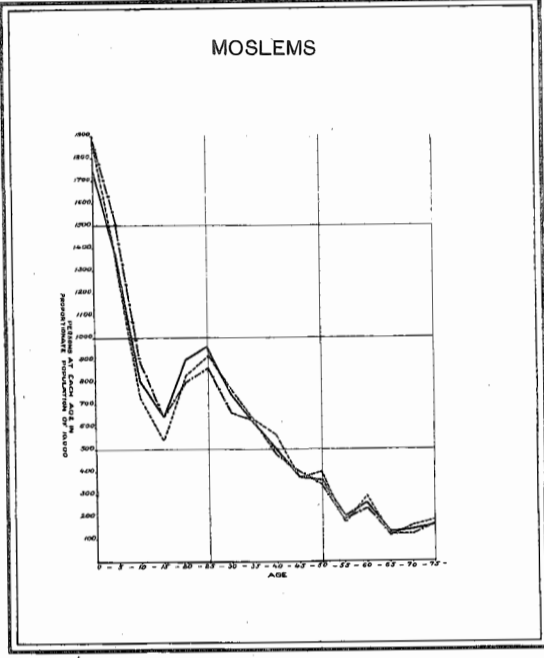
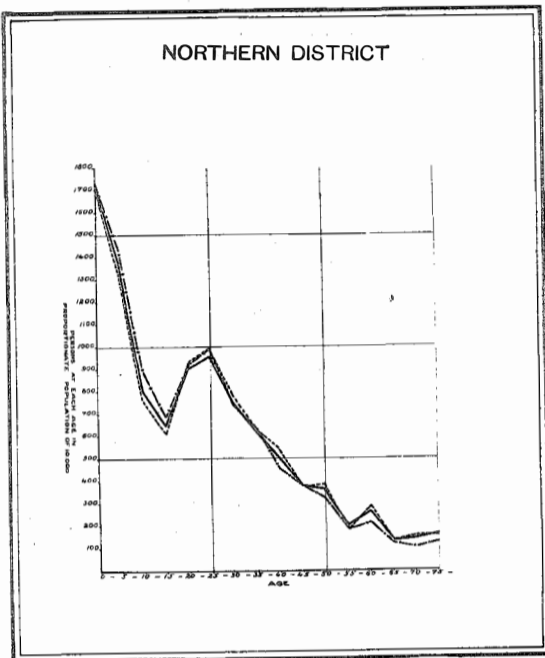
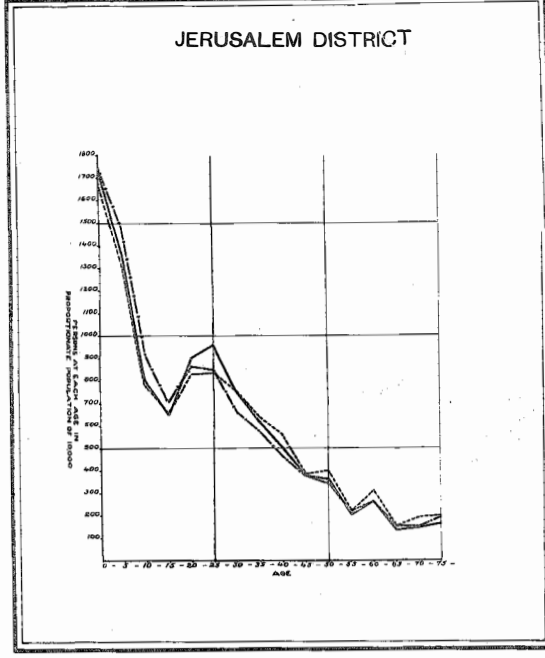
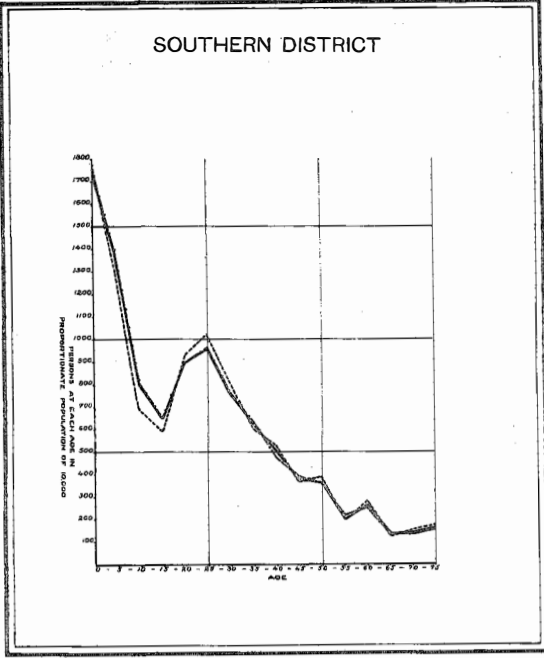
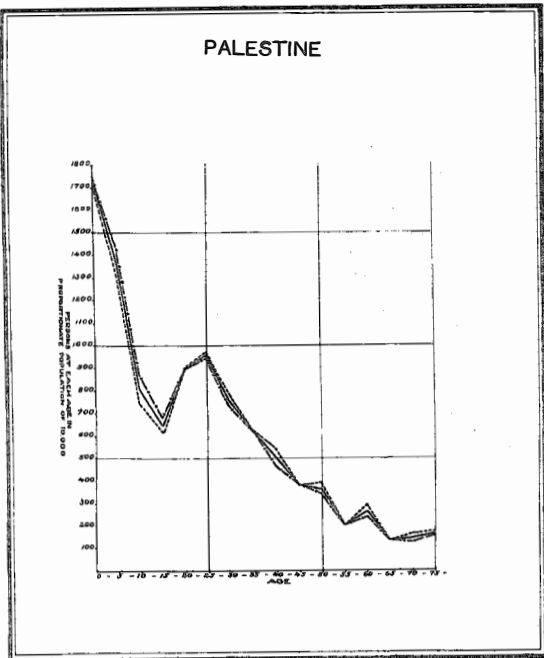
³ Whittaker & Robinson. *Calculus of Observations* 1929.

SUBSIDIARY TABLE No. 1.

Age distribution.—Moslems.

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
TOTAL ...	693,036	693,036	352,105	352,105	340,931	340,931
0 - 1 ...	28,462	27,067	14,803	13,650	13,659	13,417
1 - 2 ...	23,012	26,628	11,628	13,482	11,384	13,146
2 - 3 ...	27,771	26,100	14,060	13,273	13,711	12,827
3 - 4 ...	26,797	25,440	13,503	13,025	13,294	12,415
4 - 5 ...	24,666	24,611	12,489	12,697	12,177	11,914
0 - 5 ...	130,708	129,846	66,483	66,127	64,225	63,719
5 - 6 ...	24,049	23,544	12,551	12,249	11,498	11,295
6 - 7 ...	22,462	22,202	11,507	11,693	10,955	10,509
7 - 8 ...	19,401	20,494	10,725	10,928	8,676	9,566
8 - 9 ...	22,761	18,471	12,325	9,985	10,436	8,486
9 - 10 ...	11,608	16,432	6,402	9,011	5,206	7,421
5 - 10 ...	100,281	101,143	53,510	53,866	46,771	47,277
10 - 11 ...	20,523	14,683	11,261	8,135	9,262	6,548
11 - 12 ...	6,955	12,711	3,940	7,135	3,015	5,576
12 - 13 ...	15,769	10,923	8,985	6,201	6,784	4,722
13 - 14 ...	7,379	9,617	4,132	5,487	3,247	4,130
14 - 15 ...	6,530	8,783	3,496	4,991	3,034	3,792
10 - 15 ...	57,156	56,717	31,814	31,949	25,342	24,768
15 - 16 ...	10,577	8,534	6,331	4,773	4,246	3,761
16 - 17 ...	6,107	8,679	3,451	4,747	2,656	3,932
17 - 18 ...	5,693	9,245	3,134	4,827	2,559	4,318
18 - 19 ...	14,703	9,988	7,627	5,194	7,076	4,794
19 - 20 ...	4,304	10,854	2,286	5,529	2,018	5,325
15 - 20 ...	41,384	47,300	22,829	25,170	18,555	22,130
20 - 21 ...	27,377	11,607	13,466	5,825	14,911	5,782
21 - 22 ...	3,866	12,246	2,116	6,084	1,750	6,162
22 - 23 ...	12,872	12,659	6,653	6,252	6,219	6,407
23 - 24 ...	6,327	12,940	3,339	6,367	2,988	6,573
24 - 25 ...	5,376	13,009	2,688	6,385	2,688	6,624
20 - 25 ...	56,818	62,461	28,262	30,913	28,556	31,548
25 - 26 ...	39,002	12,990	18,240	6,354	20,762	6,636
26 - 27 ...	5,029	12,856	2,645	6,256	2,384	6,600
27 - 28 ...	6,224	12,617	3,414	6,098	2,810	6,519
28 - 29 ...	9,668	12,173	5,100	5,847	4,568	6,326
29 - 30 ...	2,060	11,611	1,135	5,551	925	6,060
25 - 30 ...	61,983	62,247	30,534	30,106	31,449	32,141
30 - 31 ...	37,699	10,926	16,701	5,210	20,998	5,716
31 - 32 ...	1,721	10,311	997	4,927	724	5,384
32 - 33 ...	6,157	9,761	3,290	4,708	2,867	5,053
33 - 34 ...	2,525	9,427	1,512	4,571	1,013	4,856
34 - 35 ...	1,826	9,126	940	4,437	886	4,689
30 - 35 ...	49,928	49,551	23,440	23,853	26,488	25,698
35 - 36 ...	32,044	8,836	15,526	4,305	16,518	4,531
36 - 37 ...	2,660	8,556	1,514	4,175	1,146	4,381
37 - 38 ...	2,588	8,271	1,506	4,037	1,082	4,234
38 - 39 ...	5,072	7,980	2,800	3,897	2,272	4,083
39 - 40 ...	1,483	7,690	848	3,758	635	3,932
35 - 40 ...	43,847	41,333	22,194	20,172	21,653	21,161
40 - 41 ...	29,917	7,394	13,151	3,614	16,766	3,780
41 - 42 ...	1,005	7,094	561	3,464	444	3,630
42 - 43 ...	3,145	6,797	1,803	3,318	1,342	3,479
43 - 44 ...	1,462	6,510	851	3,181	611	3,329
44 - 45 ...	643	6,225	403	3,048	240	3,177
40 - 45 ...	36,172	34,020	16,769	16,625	19,403	17,395
45 - 46 ...	20,944	5,953	10,504	2,925	10,440	3,028
46 - 47 ...	1,119	5,684	696	2,806	423	2,878
47 - 48 ...	1,344	5,420	818	2,687	526	2,733
48 - 49 ...	2,673	5,148	1,624	2,568	1,049	2,580
49 - 50 ...	891	4,887	539	2,449	352	2,438
45 - 50 ...	26,971	27,092	14,181	13,435	12,790	13,657

AGE DISTRIBUTIONS IN VARIOUS LOCALITIES



SUBSIDIARY TABLE No. I.—continued.

Age distribution.—Moslems.—concluded.

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
50 - 51 ...	22,012	4,634	9,753	2,328	12,259	2,306
51 - 52 ...	658	4,398	431	2,215	227	2,183
52 - 53 ...	1,648	4,170	1,040	2,102	608	2,068
53 - 54 ...	755	3,962	495	1,999	260	1,963
54 - 55 ...	742	3,777	437	1,904	305	1,873
50 - 55 ...	25,815	20,941	12,156	10,548	13,659	10,393
55 - 56 ...	9,984	3,604	5,060	1,807	4,924	1,797
56 - 57 ...	680	3,443	418	1,719	262	1,724
57 - 58 ...	601	3,295	383	1,636	218	1,659
58 - 59 ...	1,048	3,170	663	1,571	380	1,599
59 - 60 ...	363	3,038	227	1,499	136	1,539
55 - 60 ...	12,676	16,550	6,756	8,232	5,920	8,318
60 - 61 ...	16,369	2,917	7,012	1,428	9,357	1,489
61 - 62 ...	461	2,787	312	1,358	149	1,429
62 - 63 ...	927	2,663	591	1,289	336	1,374
63 - 64 ...	489	2,536	323	1,217	166	1,319
64 - 65 ...	311	2,417	189	1,148	122	1,269
60 - 65 ...	18,557	13,320	8,427	6,440	10,130	6,880
65 - 66 ...	7,169	2,300	3,648	1,081	3,521	1,219
66 - 67 ...	244	2,190	156	1,021	88	1,169
67 - 68 ...	316	2,081	209	967	107	1,114
68 - 69 ...	517	1,956	289	907	228	1,049
69 - 70 ...	177	1,860	81	853	96	1,007
65 - 70 ...	8,423	10,387	4,383	4,829	4,040	5,558
70 - 71 ...	9,250	1,757	3,958	803	5,292	954
71 - 72 ...	206	1,662	94	763	112	899
72 - 73 ...	390	1,561	227	714	163	847
73 - 74 ...	132	1,451	77	659	55	792
74 - 75 ...	83	1,369	50	630	33	739
70 - 75 ...	10,061	7,800	4,406	3,569	5,655	4,231
75 - 76 ...	12,256	1,279	5,961	590	6,295	689
76 - 77 ...		1,179		545		634
77 - 78 ...		1,086		506		580
78 - 79 ...		991		466		525
79 - 80 ...		896		426		470
75 - 80 ...		5,431		2,533		2,898
80 - 81 ...		824		396		428
81 - 82 ...		737		364		373
82 - 83 ...		670		342		328
83 - 84 ...		601		319		282
84 - 85 ...		549		297		252
80 - 85 ...		3,381		1,718		1,663
85 - 86 ...		498		278		220
86 - 87 ...		458		258		200
87 - 88 ...		419		238		181
88 - 89 ...		378		216		162
89 - 90 ...		339		196		143
85 - 90 ...		2,092		1,186		906
90 - 91 ...		301		174		127
91 - 92 ...		259		151		108
92 - 93 ...		228		132		96
93 - 94 ...		184		112		72
94 - 95 ...		155		91		64
90 - 95 ...		1,127		660		467
95 - 96 ...		117		69		48
96 - 97 ...		84		50		34
97 - 98 ...		52		33		19
98 - 99 ...		31		17		14
99 - 100 ...		13		5		8
95 - 100 ...		297		174		123

SUBSIDIARY TABLE No. I.—continued.

Age distribution.—Jews.

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
TOTAL ...	174,304	174,304	87,892	87,892	86,412	86,412
0 - 1 ...	5,149	4,845	2,703	2,488	2,446	2,357
1 - 2 ...	4,309	4,772	2,200	2,455	2,109	2,317
2 - 3 ...	4,799	4,699	2,427	2,405	2,372	2,294
3 - 4 ...	4,582	4,641	2,346	2,374	2,236	2,267
4 - 5 ...	4,668	4,550	2,368	2,322	2,300	2,228
0 - 5 ...	23,507	23,507	12,044	12,044	11,463	11,463
5 - 6 ...	4,369	4,430	2,222	2,253	2,147	2,177
6 - 7 ...	4,183	4,272	2,157	2,175	2,026	2,097
7 - 8 ...	4,056	4,060	2,092	2,072	1,964	1,988
8 - 9 ...	4,159	3,808	2,097	1,949	2,062	1,859
9 - 10 ...	3,328	3,525	1,691	1,810	1,637	1,715
5 - 10 ...	20,095	20,095	10,259	10,259	9,836	9,836
10 - 11 ...	3,584	3,203	1,801	1,638	1,783	1,565
11 - 12 ...	2,804	2,893	1,441	1,483	1,363	1,410
12 - 13 ...	2,960	2,619	1,550	1,342	1,410	1,277
13 - 14 ...	2,012	2,424	1,039	1,236	973	1,188
14 - 15 ...	1,892	2,325	956	1,174	936	1,151
10 - 15 ...	13,252	13,464	6,787	6,873	6,465	6,591
15 - 16 ...	2,084	2,338	1,085	1,164	999	1,174
16 - 17 ...	2,454	2,448	1,214	1,201	1,240	1,247
17 - 18 ...	2,698	2,647	1,300	1,285	1,398	1,362
18 - 19 ...	3,435	2,900	1,641	1,399	1,794	1,501
19 - 20 ...	2,818	3,191	1,328	1,539	1,490	1,652
15 - 20 ...	13,489	13,524	6,568	6,588	6,921	6,936
20 - 21 ...	4,067	3,482	1,872	1,686	2,195	1,796
21 - 22 ...	3,162	3,766	1,658	1,834	1,504	1,932
22 - 23 ...	4,270	4,017	2,104	1,971	2,166	2,046
23 - 24 ...	4,011	4,243	2,034	2,097	1,977	2,146
24 - 25 ...	4,261	4,418	2,082	2,200	2,179	2,218
20 - 25 ...	19,771	19,926	9,750	9,788	10,021	10,138
25 - 26 ...	5,321	4,539	2,597	2,277	2,724	2,262
26 - 27 ...	4,602	4,577	2,348	2,315	2,254	2,262
27 - 28 ...	4,288	4,532	2,287	2,313	2,001	2,219
28 - 29 ...	4,764	4,387	2,376	2,264	2,388	2,123
29 - 30 ...	3,072	4,160	1,633	2,171	1,439	1,989
25 - 30 ...	22,047	22,195	11,241	11,340	10,806	10,855
30 - 31 ...	5,824	3,860	2,925	2,038	2,899	1,822
31 - 32 ...	2,791	3,530	1,660	1,882	1,131	1,648
32 - 33 ...	3,244	3,186	1,786	1,711	1,458	1,475
33 - 34 ...	2,372	2,869	1,317	1,543	1,055	1,326
34 - 35 ...	1,969	2,590	1,053	1,388	916	1,202
30 - 35 ...	16,200	16,035	8,741	8,562	7,459	7,473
35 - 36 ...	3,356	2,371	1,707	1,259	1,649	1,112
36 - 37 ...	2,032	2,199	1,059	1,154	973	1,045
37 - 38 ...	1,678	2,070	884	1,074	794	996
38 - 39 ...	2,073	1,948	1,082	1,006	991	942
39 - 40 ...	1,192	1,845	632	949	560	896
35 - 40 ...	10,331	10,433	5,364	5,442	4,967	4,991
40 - 41 ...	3,632	1,748	1,691	897	1,941	851
41 - 42 ...	791	1,642	480	834	311	808
42 - 43 ...	1,558	1,545	824	777	734	768
43 - 44 ...	1,109	1,457	569	728	540	729
44 - 45 ...	879	1,384	421	686	458	698
40 - 45 ...	7,969	7,776	3,985	3,922	3,984	3,854
45 - 46 ...	2,201	1,309	1,031	646	1,170	663
46 - 47 ...	942	1,255	453	617	489	638
47 - 48 ...	757	1,205	372	592	385	613
48 - 49 ...	1,288	1,170	643	571	645	599
49 - 50 ...	628	1,144	313	555	315	589
45 - 50 ...	5,816	6,083	2,812	2,981	3,004	3,102

SUBSIDIARY TABLE No. I.—continued.

Age distribution.—Jews.—concluded.

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
50 - 51 ...	2,970	1,118	1,337	540	1,633	578
51 - 52 ...	485	1,099	257	531	228	568
52 - 53 ...	1,035	1,068	543	518	492	550
53 - 54 ...	654	1,040	344	506	310	534
54 - 55 ...	679	1,016	315	497	364	519
50 - 55 ...	5,823	5,341	2,796	2,592	3,027	2,749
55 - 56 ...	1,632	995	769	487	863	508
56 - 57 ...	826	968	387	475	439	493
57 - 58 ...	624	945	308	466	316	479
58 - 59 ...	903	901	411	440	492	461
59 - 60 ...	400	870	222	425	178	445
55 - 60 ...	4,385	4,679	2,097	2,293	2,288	2,386
60 - 61 ...	2,567	837	1,063	408	1,504	429
61 - 62 ...	350	806	191	394	159	412
62 - 63 ...	742	777	389	378	353	399
63 - 64 ...	489	744	261	363	228	381
64 - 65 ...	475	709	260	344	215	365
60 - 65 ...	4,623	3,873	2,164	1,887	2,459	1,986
65 - 66 ...	1,254	667	540	318	714	349
66 - 67 ...	448	627	224	298	224	329
67 - 68 ...	348	590	188	273	160	317
68 - 69 ...	553	550	245	251	308	299
69 - 70 ...	223	514	106	229	117	285
65 - 70 ...	2,826	2,948	1,303	1,369	1,523	1,579
70 - 71 ...	1,551	473	638	204	913	269
71 - 72 ...	199	433	130	181	69	252
72 - 73 ...	339	394	186	160	153	234
73 - 74 ...	203	362	117	142	86	220
74 - 75 ...	144	323	76	123	68	200
70 - 75 ...	2,436	1,985	1,147	810	1,289	1,175
75 - 76 ...	1,734	291	834	109	900	182
76 - 77 ...		255		96		159
77 - 78 ...		240		90		150
78 - 79 ...		215		80		135
79 - 80 ...		188		75		113
75 - 80 ...		1,189		450		739
80 - 81 ...		169		69		100
81 - 82 ...		149		66		83
82 - 83 ...		133		63		70
83 - 84 ...		116		59		57
84 - 85 ...		98		55		43
80 - 85 ...		665		312		353
85 - 86 ...		86		49		37
86 - 87 ...		78		47		31
87 - 88 ...		72		44		28
88 - 89 ...		64		40		24
89 - 90 ...		56		36		20
85 - 90 ...		356		216		140
90 - 91 ...		48		31		17
91 - 92 ...		41		27		14
92 - 93 ...		35		24		11
93 - 94 ...		29		21		8
94 - 95 ...		23		18		5
90 - 95 ...		176		121		55
95 - 96 ...		19		15		4
96 - 97 ...		15		12		3
97 - 98 ...		10		8		2
98 - 99 ...		7		5		2
99 - 100 ...		3		3		...
95 - 100 ...		54		43		11

SUBSIDIARY TABLE No. I.—continued.

Age distribution.—Christians.

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
TOTAL ...	91,379	91,379	45,886	45,886	45,493	45,493
0 - 1 ...	2,903	2,576	1,515	1,342	1,388	1,234
1 - 2 ...	2,213	2,558	1,157	1,331	1,056	1,227
2 - 3 ...	2,616	2,540	1,384	1,322	1,232	1,218
3 - 4 ...	2,537	2,520	1,309	1,312	1,228	1,208
4 - 5 ...	2,421	2,496	1,242	1,300	1,179	1,196
0 - 5 ...	12,690	12,690	6,607	6,607	6,083	6,083
5 - 6 ...	2,447	2,475	1,261	1,288	1,186	1,187
6 - 7 ...	2,366	2,440	1,248	1,268	1,118	1,172
7 - 8 ...	2,464	2,369	1,287	1,231	1,177	1,138
8 - 9 ...	2,404	2,243	1,233	1,170	1,171	1,073
9 - 10 ...	1,915	2,069	1,000	1,072	915	997
5 - 10 ...	11,596	11,596	6,029	6,029	5,567	5,567
10 - 11 ...	2,161	1,800	1,104	945	1,057	855
11 - 12 ...	1,426	1,601	743	843	683	758
12 - 13 ...	1,534	1,430	851	750	683	680
13 - 14 ...	1,031	1,319	576	686	455	633
14 - 15 ...	996	1,282	509	657	487	625
10 - 15 ...	7,148	7,432	3,783	3,881	3,365	3,551
15 - 16 ...	1,149	1,326	574	670	575	656
16 - 17 ...	1,469	1,430	739	719	730	771
17 - 18 ...	1,570	1,583	783	802	787	781
18 - 19 ...	2,162	1,743	1,024	898	1,138	845
19 - 20 ...	1,419	1,891	771	996	648	895
15 - 20 ...	7,769	7,973	3,891	4,085	3,878	3,888
20 - 21 ...	2,972	1,998	1,453	1,078	1,519	920
21 - 22 ...	1,568	2,060	1,007	1,135	561	925
22 - 23 ...	2,273	2,067	1,308	1,156	965	911
23 - 24 ...	1,766	2,040	1,068	1,148	698	892
24 - 25 ...	1,740	1,980	1,079	1,112	661	868
20 - 25 ...	10,319	10,145	5,915	5,629	4,404	4,516
25 - 26 ...	2,851	1,903	1,375	1,056	1,476	847
26 - 27 ...	1,458	1,812	825	987	633	825
27 - 28 ...	1,461	1,719	800	915	661	804
28 - 29 ...	1,701	1,616	880	841	821	775
29 - 30 ...	770	1,518	419	777	351	741
25 - 30 ...	8,241	8,568	4,299	4,567	3,942	3,992
30 - 31 ...	2,988	1,420	1,364	717	1,624	703
31 - 32 ...	735	1,338	445	670	290	668
32 - 33 ...	1,205	1,267	616	629	589	638
33 - 34 ...	797	1,218	419	604	378	614
34 - 35 ...	634	1,174	333	577	301	597
30 - 35 ...	6,359	6,417	3,177	3,197	3,182	3,220
35 - 36 ...	2,568	1,136	1,153	553	1,415	583
36 - 37 ...	794	1,098	386	527	408	571
37 - 38 ...	729	1,063	369	505	360	558
38 - 39 ...	1,030	1,026	448	481	542	545
39 - 40 ...	419	990	215	457	204	533
35 - 40 ...	5,540	5,313	2,611	2,523	2,929	2,790
40 - 41 ...	2,497	957	1,019	438	1,478	519
41 - 42 ...	340	930	170	423	170	507
42 - 43 ...	740	900	353	407	387	493
43 - 44 ...	480	875	239	394	241	481
44 - 45 ...	368	848	179	381	189	467
40 - 45 ...	4,425	4,510	1,960	2,043	2,465	2,467
45 - 46 ...	2,042	822	811	368	1,231	454
46 - 47 ...	429	798	214	358	215	440
47 - 48 ...	458	775	223	348	235	427
48 - 49 ...	686	751	330	337	356	414
49 - 50 ...	250	729	128	326	122	403
45 - 50 ...	3,865	3,875	1,706	1,737	2,159	2,138

*SUBSIDIARY TABLE No. I.—concluded.
Age distribution.—Christians.—concluded.*

AGE	PERSONS		MALES		FEMALES	
	Ungraduated	Graduated	Ungraduated	Graduated	Ungraduated	Graduated
1	2	3	4	5	6	7
50 - 51 ...	2,211	701	874	314	1,337	387
51 - 52 ...	255	676	141	302	114	374
52 - 53 ...	546	652	303	291	243	361
53 - 54 ...	333	627	193	280	140	347
54 - 55 ...	313	601	151	268	162	333
50 - 55 ...	3,658	3,257	1,662	1,455	1,996	1,802
55 - 56 ...	1,297	557	549	258	748	319
56 - 57 ...	335	554	179	249	156	305
57 - 58 ...	271	532	134	240	137	292
58 - 59 ...	374	507	183	229	191	278
59 - 60 ...	168	487	92	219	76	268
55 - 60 ...	2,445	2,657	1,137	1,195	1,308	1,462
60 - 61 ...	1,755	463	639	208	116	255
61 - 62 ...	174	443	111	199	63	244
62 - 63 ...	299	423	176	190	123	233
63 - 64 ...	188	404	103	183	85	221
64 - 65 ...	161	387	90	175	71	212
60 - 65 ...	2,577	2,120	1,119	955	1,458	1,165
65 - 66 ...	1,039	364	423	166	616	198
66 - 67 ...	172	347	87	158	85	189
67 - 68 ...	154	332	82	149	72	183
68 - 69 ...	188	315	92	139	96	176
69 - 70 ...	94	296	49	131	45	165
65 - 70 ...	1,647	1,654	733	743	914	911
70 - 71 ...	1,018	282	394	122	624	160
71 - 72 ...	109	265	55	114	54	151
72 - 73 ...	156	252	77	108	79	144
73 - 74 ...	93	235	46	99	47	136
74 - 75 ...	102	221	54	92	48	129
70 - 75 ...	1,478	1,255	626	535	852	720
75 - 76 ...	1,622	205	631	84	991	121
76 - 77 ...		191		77		114
77 - 78 ...		176		70		106
78 - 79 ...		161		62		99
79 - 80 ...		149		56		93
75 - 80 ...		882		349		533
80 - 81 ...		133		49		84
81 - 82 ...		122		45		77
82 - 83 ...		110		40		70
83 - 84 ...		99		35		64
84 - 85 ...		86		30		56
80 - 85 ...		550		199		351
85 - 86 ...		74		25		49
86 - 87 ...		66		22		44
87 - 88 ...		60		20		40
88 - 89 ...		54		18		36
89 - 90 ...		47		15		32
85 - 90 ...		301		100		201
90 - 91 ...		40		13		27
91 - 92 ...		36		11		25
92 - 93 ...		31		9		22
93 - 94 ...		24		7		17
94 - 95 ...		18		5		13
90 - 95 ...		149		45		104
95 - 96 ...		13		2		11
96 - 97 ...		10		1		9
97 - 98 ...		6		...		6
98 - 99 ...		4		...		4
99 - 100 ...		2		...		2
95 - 100 ...		35		3		32

SUBSIDIARY TABLE No. II.

Standard population by age and sex.

100,000 Three religions, both sexes.

100,000 Moslems, both sexes.

100,000 Jews, both sexes.

50,000 Christians, both sexes.

AGE group	TOTAL (3 religions)			MOSLEMS			JEWS			CHRISTIANS		
	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
TOTAL ...	100,000	50,680	49,320	100,000	50,806	49,194	100,000	50,425	49,575	50,000	25,108	24,892
0 - 1 ...	3,597	1,823	1,774	3,906	1,970	1,936	2,779	1,427	1,352	1,409	734	675
1 - 2 ...	3,542	1,801	1,741	3,842	1,945	1,897	2,737	1,408	1,329	1,399	728	671
2 - 3 ...	3,477	1,773	1,704	3,766	1,915	1,851	2,695	1,379	1,316	1,390	724	666
3 - 4 ...	3,401	1,744	1,657	3,671	1,880	1,791	2,663	1,362	1,301	1,379	718	661
4 - 5 ...	3,302	1,702	1,600	3,551	1,832	1,719	2,611	1,333	1,278	1,366	711	655
0 - 5 ...	17,319	8,843	8,476	18,736	9,542	9,194	13,485	6,909	6,576	6,943	3,615	3,328
5 - 10 ...	13,855	7,317	6,538	14,594	7,772	6,822	11,529	5,886	5,643	6,345	3,299	3,046
10 - 15 ...	8,095	4,454	3,641	8,184	4,610	3,574	7,724	3,943	3,781	4,067	2,124	1,943
15 - 20 ...	7,176	3,739	3,437	6,825	3,632	3,193	7,758	3,779	3,979	4,362	2,235	2,127
20 - 25 ...	9,652	4,833	4,819	9,012	4,460	4,552	11,431	5,615	5,816	5,551	3,080	2,471
25 - 30 ...	9,701	4,800	4,901	8,982	4,344	4,638	12,733	6,505	6,228	4,688	2,504	2,184
30 - 35 ...	7,510	3,714	3,796	7,150	3,442	3,708	9,199	4,912	4,287	3,511	1,749	1,762
35 - 40 ...	5,954	2,935	3,019	5,964	2,911	3,053	5,985	3,122	2,863	2,907	1,380	1,527
40 - 45 ...	4,830	2,356	2,474	4,909	2,399	2,510	4,462	2,251	2,211	2,468	1,118	1,350
45 - 50 ...	3,865	1,894	1,971	3,909	1,938	1,971	3,491	1,711	1,780	2,120	950	1,170
50 - 55 ...	3,081	1,522	1,559	3,021	1,522	1,499	3,064	1,487	1,577	1,782	796	986
55 - 60 ...	2,492	1,222	1,270	2,388	1,188	1,200	2,685	1,316	1,369	1,454	654	800
60 - 65 ...	2,014	968	1,046	1,922	929	993	2,223	1,083	1,140	1,160	523	637
65 - 70 ...	1,564	724	840	1,499	697	802	1,692	786	906	904	406	498
70 - 75 ...	1,152	513	639	1,125	515	610	1,139	465	674	687	293	394
75 - 80 ...	783	348	435	784	366	418	682	258	424	483	191	292
80 - 85 ...	479	232	247	488	248	240	382	179	203	301	109	192
85 - 90 ...	287	157	130	302	171	131	204	124	80	165	55	110
90 - 95 ...	151	86	65	163	95	68	101	69	32	82	25	57
95 - 100 ...	40	23	17	43	25	18	31	25	6	20	2	18

SUBSIDIARY TABLE No. III.

Age distribution per 10,000 persons.

AGE	PALESTINE			MOSLEMS		JEWS		CHRISTIANS		SOUTHERN DISTRICT		JERUSALEM DISTRICT		NORTHERN DISTRICT		JAFFA TOWN		TEL AVIV TOWN		JERUSALEM TOWN		NABLUS TOWN		HAIFA TOWN	
	Persons	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0 - 1 ...	381	392	370	420	401	308	283	330	305	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 - 2 ...	308	308	307	330	334	250	244	252	232	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 - 3 ...	367	368	366	399	402	276	275	302	271	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 - 4 ...	353	353	354	384	390	267	259	285	270	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 - 5 ...	331	331	331	355	357	269	266	271	259	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
0 - 5 ...	1,740	1,752	1,728	1,888	1,884	1,370	1,327	1,440	1,337	1,762	1,786	1,754	1,677	1,743	1,720	1,584	1,709	1,155	1,080	1,435	1,387	1,757	1,697	1,406	1,458
5 - 10 ...	1,376	1,436	1,815	1,520	1,372	1,167	1,138	1,314	1,224	1,387	1,297	1,489	1,313	1,439	1,329	1,445	1,438	1,030	985	1,357	1,269	1,648	1,482	1,160	1,281
10 - 15 ...	810	874	745	904	743	772	748	824	740	807	695	918	777	897	762	844	759	745	679	905	843	1,100	863	703	755
15 - 20 ...	652	683	620	648	544	747	801	848	852	655	597	709	661	689	611	799	752	741	839	891	893	726	739	810	793
20 - 25 ...	905	903	909	803	837	1,109	1,160	1,289	968	899	936	870	838	926	934	1,029	1,060	964	1,180	1,131	1,002	870	833	1,257	1,170
25 - 30 ...	963	949	976	867	922	1,279	1,250	937	866	965	1,025	852	890	996	997	890	912	1,207	1,337	968	923	732	848	1,267	1,165
30 - 35 ...	756	729	785	666	777	995	863	692	699	764	813	662	757	742	782	754	816	1,116	959	762	734	627	836	984	953
35 - 40 ...	623	621	625	630	635	610	575	569	644	632	608	577	640	639	629	636	532	703	635	549	569	507	544	680	599
40 - 45 ...	507	464	548	476	569	454	461	427	542	478	533	467	564	460	548	570	555	551	514	463	528	493	546	494	497
45 - 50 ...	382	385	380	403	375	320	348	372	475	391	370	376	390	386	379	356	313	404	396	336	367	401	378	346	344
50 - 55 ...	368	342	395	345	401	318	350	362	439	366	394	343	404	323	390	376	386	394	377	321	398	337	440	308	350
55 - 60 ...	204	206	201	192	174	239	265	248	288	221	203	220	223	187	186	174	139	302	317	224	251	231	162	168	188
60 - 65 ...	269	241	297	239	297	246	285	244	320	252	289	267	316	216	290	226	270	269	282	244	319	261	256	171	214
65 - 70 ...	135	133	137	125	119	148	176	160	201	131	125	153	159	121	132	85	75	180	193	145	183	97	112	99	105
70 - 75 ...	146	128	165	125	166	131	149	136	187	135	156	151	193	107	153	120	142	153	136	139	183	124	149	73	102
75 & over	164	154	174	169	185	95	104	138	218	155	173	192	198	129	158	112	142	86	91	132	151	89	145	74	126

SUBSIDIARY TABLE No. IV.

Proportion of children under 10 and of persons over 60 to those aged 18-45: also of married females aged 18-45 per 100 females of all ages.

RELIGION, DISTRICT AND TOWN	Proportion of children of both sexes per 100				Proportion of persons over 60 per 100 aged 18-45				Number of married females aged 18-45 per 100 females of all ages.	
	Persons aged 18-45		Married females aged 18-45		Males	Females	Males	Females	1931	1922
	1931	1922	1931	1922	1931		1922			
PALESTINE										
All religions ...	77	...	195	...	16	19	...	...	32	...
Moslems ...	86	...	203	...	18	19	...	...	33	...
Christians ...	63	...	212	...	16	23	...	...	25	...
Jews ...	53	...	157	...	13	15	...	...	32	...
SOUTHERN DISTRICT										
All religions ...	76	...	191	...	17	18	...	...	33	...
JERUSALEM DISTRICT										
All religions ...	81	...	200	...	20	22	...	...	31	...
NORTHERN DISTRICT										
All religions ...	75	...	195	...	14	18	...	...	32	...
Jaffa Town ...	73	...	199	...	13	15	...	...	33	...
Tel Aviv Town ...	43	...	137	...	14	14	...	...	30	...
Jerusalem Town ...	64	...	196	...	15	20	...	...	28	...
Haifa Town ...	54	...	167	...	8	12	...	...	34	...
Nablus Town ...	88	...	204	...	16	17	...	...	32	...

SUBSIDIARY TABLE No. V.

*Birth-rates, †death-rates and infantile mortality declared by Department of Public Health, 1923 - 1931.

(Registration area excludes Beersheba sub-district).

YEAR	BIRTH-RATES per 1,000 persons				DEATH-RATES per 1,000 persons				INFANTILE MORTALITY per 1,000 births			
	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians
1921	28.1	...	...	...	16.1	...	...	...	154.8	...	...	...
1922	42.39	...	...	...	18.8	...	...	...	156.6	...	...	...
1923	47.4	...	...	...	25.7	...	...	...	184.8	...	...	...
1924	51.3	...	...	...	25.9	...	...	...	184.8	...	...	...
1925	49.3	54.7	33.2	37.2	27.3	31.2	15.1	18.8	188.6	200.5	131.3	162.4
1926	40.7	60.2	36.0	40.0	24.4	28.6	12.1	17.9	163.0	172.5	108.1	158.0
1927	50.4	56.1	35.1	38.9	28.0	33.1	13.5	20.1	200.5	216.8	115.4	187.2
1928	53.9	60.9	35.4	40.4	29.0	35.1	12.1	18.9	186.3	203.5	95.8	157.9
1929	51.2	57.7	34.1	37.8	26.5	31.7	11.8	17.9	186.5	204.9	89.8	155.8
1930	52.9	60.3	33.4	38.9	23.1	27.9	9.6	16.2	154.3	169.6	69.0	134.4
1931	52.8	60.3	32.7	39.0	24.2	29.6	9.7	15.7	170.1	187.5	81.6	133.5

*No distribution by sex was made.

†Both birth and death-rates declared annually are too high the mid-year populations having been estimated at too low a figure.

Corrected rates for 1931.

RELIGION	BIRTH-RATE			DEATH-RATE		
	Persons	Males	Females	Persons	Males	Females
ALL RELIGIONS ...	47.7	48.9	46.5	21.8	22.1	21.5
Moslems ...	53.2	54.4	51.9	26.0	26.2	25.7
Jews ...	31.8	32.6	31.0	9.4	9.6	9.2
Christians ...	36.3	37.1	35.5	14.4	14.6	14.2

SUBSIDIARY TABLE No. VI.

Infantile mortality 1923 - 1931.—Number of deaths per 1,000 births*.

YEAR	MOSLEMS		JEWS		CHRISTIANS	
	Males	Females	Males	Females	Males	Females
1923... ..	172.8	163.8	130.2	114.9	119.3	135.0
1924... ..	179.3	172.5	102.9	103.0	148.3	145.6
1925... ..	176.3	170.3	131.5	134.4	154.8	158.6
1926... ..	156.3	146.8	114.9	98.6	148.9	154.1
1927... ..	200.3	184.1	127.8	105.0	189.6	180.4
1928... ..	184.5	171.8	99.4	87.3	135.3	165.3
1929... ..	190.3	181.7	92.4	85.4	157.9	156.3
1930... ..	158.0	146.6	75.0	61.7	114.7	144.4
1931... ..	168.7	166.4	72.8	90.7	125.7	137.4

*The absolute statistics are given in Subsidiary Tables Nos. IV & V at the end of Chapter VI.

It will be seen that there is no correspondence between these mortalities by sex and the declared infant mortalities by persons. The reason is that the absolute statistics, revised for census purposes by the Department of Public Health and found at the end of Chapter VI (Sex), do not correspond with the absolute statistics given in the series of annual reports of the Department of Public Health.

SUBSIDIARY TABLE No. VII.

*Approximate mortality at ages 1 year and upward.

YEAR	MOSLEMS	JEWS	CHRISTIANS
1925	20.6	10.9	12.9
1926	19.4	8.7	12.2
1927	21.6	9.8	13.3
1928	24.3	9.1	13.2
1929	20.8	9.0	12.0
1930	18.9	7.4	11.3
1931	19.6	7.1	10.9

*Calculated on the general and infantile mortality declared in the annual reports of the Department of Public Health.

General mortality = Infantile mortality $\frac{\text{births}}{\text{population}}$ + mortality at ages 1 year and upward.

The ratio $\frac{\text{births}}{\text{population}}$ has been taken to be .0531, .0371, .0363 for Moslems, Jews and Christians.

The actual ratio employed for $\frac{\text{births}}{\text{population}}$ is a matter of indifference in this investigation which is concerned

with trends and not the actual mortalities at ages 1 year and over.

CHAPTER VI.—SEX.

Reference
to statistics.

127. In all the census tables the distinction of sex is maintained, but for purposes of this chapter the most important is Table VIII, Volume II, in which the statistics of sex are combined with those for age, religion and conjugal condition. The following proportional tables will be found at the end of this chapter :—

Subsidiary Table I. — The number of females per thousand males in different groups of the population, and in various localities at the censuses of 1922 and 1931.

Subsidiary Table II. — The corresponding proportions at different ages in the settled population by localities and the main religions.

Subsidiary Table III. — Certain comparisons between the proportions at different ages at the censuses of 1922 and 1931—
(a) by main religions ;
(b) by certain sub-districts ;
(c) by certain towns.

Two other tables based on the vital statistics are added, showing :—

Subsidiary Table IV. — Actual number of births and deaths of each sex reported during the years 1923–1931 in the main religions.

Subsidiary Table V. — Deaths by sex and age during the years 1923–1931 and the proportion of female to male deaths.

It should be said at once that exact comparisons between the proportions of the sexes in 1922 and 1931 are possible only in respect of total figures for the country as a whole, since the recasting of the results of the census taken in 1922 to conform with the framework of the census of 1931 is only possible within a limited field, the original data not being available. It follows that it is not possible to establish specific comparisons in the main age groups between the various populations except in a very restricted manner. It also happens that, when this analysis is carried out in such detail as is possible, no significant inferences can be drawn as to the various changes. The principal difficulty arises from the fact that, in 1922, ages were assigned to those who made no return of ages, while, in 1931, no return of ages was asked from the nomadic population. In establishing, therefore, the absolute magnitudes of the settled and nomadic populations of the two censal years it is not possible to obtain like populations in specific age groups.

The main
feature of the
returns.

128. Taking Palestine as a whole, the proportion of females at all ages per thousand males in the settled population has risen from 951 in 1922 to 973 in 1931. In the case of the Moslems the upward change is from 957 to 968 females per thousand males : in the case of the Jews from 910 to 982 : while, in the case of the Christians, the proportion has fallen from 1,001 to 991 females per thousand males. Considering the total and the nomadic populations, without reference to religious communities, the proportions have changed from 956 to 967 females to a thousand males in the case of the total population, and from 992 to 878 in the case of the nomadic population.

Turning to the natural population, in so far as that can be determined on the principles enumerated in Chapters II and III (Birthplace), the proportions are very different, being 938 in 1931 and 965 in 1922.

The proportion between the sexes for various countries is given in the following table :—

PROPORTION OF FEMALES PER 1,000 MALES IN DIFFERENT COUNTRIES.

COUNTRY	Year of census	Number of females per 1,000 males
1	2	3
U.S.S.R. (Europe)	1926	1,103
" (Asia)... ..	1926	953
Portugal	1920	1,113
France	1926	1,083
England and Wales	1921	1,096
Germany... ..	1925	1,067
Yugoslavia	1921	1,042
Italy	1921	1,028
Holland	1920	1,013
Greece	1928	1,017
Bulgaria	1926	997
Rumania... ..	1920	985
Irish Free State	1926	973
Bosnia	1910	908
Turkey (Europe)	1927	971
" (Asia)	1927	1,089
Egypt	1927	1,009
India	1911	954
	1921	945
Palestine :	1931	
All religions	"	973
Moslems	"	968
Christians	"	991
Jews	"	982

129. In general, the principal features of sex proportion in Palestine may be described in the following terms. First, in common with certain South Eastern states of Europe, Asiatic Russia and India, there is a deficiency of females in the population which is strongly marked among the Moslems. Secondly, there is a distinct tendency to reduce that deficiency as revealed by the comparison between the proportions of 1922 to 1931. This tendency is emphatic in the case of the Jews and is undoubtedly due to the adjustment of the proportion between the sexes in the immigrant Jewish population. The reverse tendency, however, is manifested in the case of the Christians. This tendency is possibly to be explained by changes in the nature of the conventual population and to a change in the composition of the garrison which in 1931 consisted of units of His Majesty's British Forces, whereas in 1922 the garrison contained a high proportion of Indian troops who were not Christians.

In strictness the whole problem should be considered in relation to natural divisions. The following table shows the number of females per thousand males in each of the natural divisions as these are arranged in the tentative distribution given in Chapter I of the Report :—

Natural division	Number of females per 1,000 males	
	1931	1922
Nejeb	845	957
Jordan Valley	605	782
Maritime Plain	953	912
Central Range	1,017	989
Esdraelon and Emek	927	934
Galilee	975	1,020

These divisions, again, should be sub-divided by the religious communities in order to ascertain where the variations actually occur. The population of the

Central Range, however, contains an insignificant number of immigrants and yields a ratio of females to males now exceeding unity, while the ratio in 1922 was 0.989. This is probably the effect, already mentioned in Chapter VI, of Moslem emigration of males to the Maritime Plain and elsewhere in Palestine¹, the small Christian population alone providing emigrants to other countries. It may also represent a significant relationship tending to equality between the sexes. It is remarkable that the Jenin sub-district, which is among the areas least affected by modern changes and is not the least infertile area in the Central Range, returns a slight excess of females over males.

Sex proportion
among
Moslems.

130. It has been suggested in Chapter V (Age) that there are evidences of tendency among Moslems to adjust the sex-proportions at births, and that it is not outside the range of possibility that a significant number of females were omitted from the census returns of the settled population of 1922. It is not possible to give specific measures to these possible causes of the changes in the proportion between the sexes of Moslems. The sex-ratio at birth is discussed in a later section together with the sex-ratio of deaths. It is only necessary to iterate what was pointed out in Chapter V (Age), namely, that, during the years immediately following the war when there had been a heavy mortality among males, and a significant dispersion of them from the southern parts of Palestine, the proportion of females to males was likely to be relatively high, and that the maintenance since then of a sex ratio at birth predominantly in favour of males would reduce that proportion, which could only increase if there were significant undue mortality or a heavy emigration among males, or a perceptible reduction in female mortality and a significant immigration of females in the subsequent years.

This expectation is indeed satisfied in the comparison between the sex proportions in the natural populations of 1922 and 1931, but is not realized in the comparisons between the total and settled populations of those years.

So far as the Moslems are concerned, there has not been observed undue mortality or significant emigration among males, or the reverse phenomena among females. Nevertheless, the proportion of females has risen during the nine intercensal years. Consequently, even if it should prove to be the case that the sex ratio of males to females at birth be declining, there is some reason for supposing that there was either a short count of Moslem females among the settled population in the census of 1922, or that there has been a significant immigration of females since that year. It has already been shown that the actual nomadic population of 1922 was considerably smaller than the constructed tribal population given in the tabulation of that census. It has also been shown that the total census population of 1922 can be reconciled with the census population of 1931 when account has been made of all movement of population. It has further been shown that, whereas the number of females per thousand males among the nomadic population of 1922 was 992, that number in 1931 was only 878. A due measure of reconciliation between the sex proportions of 1922 and 1931 is therefore possible on the basis of an overcount of tribal population and a short count of females in the settled population of 1922. But these tests are not conclusive; and it is not improbable that females and young children, scattered from Palestine during the war, returned in the years succeeding 1922, thus raising by 1931 the proportion of females to males above the proportion revealed by the census 1922 which, on this assumption, can only be an artificial ratio consequent on war conditions. On the other hand, if there were such an immigration it could not have been of great magnitude, for, in that circumstance, the reconciliation between the census populations of 1922 and 1931 would not then have been so close as it is. Consequently, the more probable hypothesis is that in 1922 there was a failure to record a significant number of females.

¹ See paragraph 37, Chapter II (Movement of population).

131. Generally, therefore, the attempt to establish comparisons between the sex proportions of 1922 and 1931 leads to no definite conclusions. The problem might, indeed, have been susceptible of close analysis if ages had been returned correctly and if the age-grouping of 1922 had been finer and more conventional. Since females have returned ages with a higher degree of error than males, particularly in respect of ages which are even multiples of 5, it is clear that the relative errors of age are propagated in the sex proportion in each age group. Again, the arrangement of age groups in the census of 1922 permits of only one comparison of any value in the analysis of the problem. The survivors of persons, who in 1922 were aged between 5 and 15 years, were aged on the average between 14 years and 24 years at the census of 1931. Consequently the sex proportion in the age group 5-15 years in 1922 is a function which has for its value in 1931 the sex proportion in the age group 14-24 years, or, approximately, the age group 15-25 years. Bearing in mind the fact that the recasting of the figures of 1922 has made strict comparison impossible, it will be seen from the subsidiary tables that the sex proportion in the age group 15-25 years in 1931 is considerably higher than the sex proportion in the age group 5-15 years in 1922. Taking the Moslem population, which is disturbed by migration to a smaller degree than the Jewish or the Christian population, this rise in the sex-proportion can only occur naturally through a heavy mortality or emigration among the males, or a significant immigration of females, or reduction in the female death-rate. Neither immigration nor emigration has a significant effect on the Moslem population; however, as has been indicated in the chapter concerning age, there is a strong indication that there is considerably higher mortality among young females than among young males, so that it is doubtful if any argument can be sustained that the sex proportion has increased in this population selected by age as a result of higher mortality among males at all ages. If the assumed causes of immigration and change in mortality of females be eliminated as opposed to the evidence, then the only other reason for the increase in the sex proportion must be found in a deficiency in the record of females at the census 1922, and this, on all grounds, seems to be a likely hypothesis.

Sex ratio by age.

It is possible that the eastern tradition of the seclusion of women had in 1922 a stronger influence in the failure to make returns in respect of females than in 1931. Such a crumbling of tradition is not contrary to expectation in a small country subjected intensively to strong modernizing tendencies.

Unsatisfactory as are the comparisons in age groups, there is a general tendency for the very heavy excess at the age 15-25 years in 1922 to be transferred in 1931 to the age group 25 years and over: and, so far as that goes, it satisfies the plausibility demanded by the passage of nine intercensal years.

132. The following table gives comparative sex ratios for Palestine and certain other countries in main age groups:—

NUMBER OF FEMALES PER 1.000 MALES IN DIFFERENT AGE GROUPS IN DIFFERENT COUNTRIES

COUNTRY	Year of census	0-15	15-40	40-60	60 and over
9	2	3	4	5	6
Austria	1927	988	1,064	1,137	1,166
France... ..	1926	983	1,073	1,107	1,252
Latvia	1930	981	1,154	1,191	1,370
Italy	1921	963	1,076	1,028	1,036
Greece	1928	963	1,076	1,028	1,036
Egypt	1927	959	1,034	1,010	1,160
Palestine :	1931				
All religions	"	908	981	1,058	1,149
Moslems	"	898	996	1,038	1,127
Christians	"	914	922	1,226	1,356
Jews	"	954	964	1,052	1,133

It is clearly evident that an abnormality is most marked in Palestine in the years of childhood and, to a smaller extent, during the reproductive period. The deficiency of females in the reproductive period is principally a consequence of the great deficiency in the ages of childhood, and, to a minor extent, of the risks to which women are exposed in childbirth.

It is unfortunate that a variety of causes have combined to prevent a close analysis of sex proportions in Palestine. These causes are:—

- (i) The great uncertainty of persons as regards their ages, this uncertainty being intensified in the case of females.
- (ii) The re-casting of the figures of the census of 1922 is only partial since the original data are not available, so that exact comparisons are impossible.
- (iii) The adoption in 1922 of an age grouping too coarse in character to admit of a close analysis of the problem.

The following table illustrates the changes in sex proportions in certain countries for some years past.

Change of sex proportion in other countries.

COUNTRY	Year of census	Number
1	2	3
Rumania	1899	968
	1912	974
	1920	985
Egypt	1907	992
	1917	997
	1927	1,009
Greece	1907	987
	1920	1,010
	1928	1,017
Spain	1877	1,045
	1900	1,049
	1910	1,056
	1920	1,071
Union of South Africa	1904	930
	1911	946

It is interesting to note that the proportion of females to males in Egypt has risen steadily since 1907.

Causation of sex.

133. There appear to be no local ideas as to the causation of sex, but old women believe that a pregnancy reaching the tenth month predicts a girl¹; and there is a superstitious belief that a girl, already knowing the inferior position assigned to women which awaits her, endeavours not to be born so that God orders her to be born². There is a great rejoicing at the birth of a boy, but the birth of a girl is not generally a matter for congratulation. Dr. T. Canaan in his paper "The child in Palestinian Arab superstition", (Palestine Oriental Society, Journal Vol. VII, No. 4), points out that it may be inferred from various verses in the Qoran that girl-babies were killed in pre-Islamic times shortly after their birth. There is now, of course, no female infanticide, but the traditionally inferior position occupied by women is in the direct descent from such a practice, and, as has been pointed out in Chapter V (Age), there is direct evidence that neglect of girls in the early years

¹ T. Canaan. Journal of the Palestine Oriental Society, Vol. VII, No. 4, 1922, "The child in Palestinian Arab superstition". Dr. Canaan has also given a study entitled "Unwritten laws, affecting the Arab women in Palestine", Vol. XV, Nos. 3-4, 1931. The student of Palestinian Arab life will find a large fund of information in Dr. Canaan's papers.—E.M.

² T. Canaan. *loc. cit.*

of life is causative of a heavy mortality among them. Letourneau¹ has said "It is the social actions of men which produce the most profound disturbances in the proportion of the sexes"; and it may well be that a history of female infanticide followed by a history of inferior status for women is epigenetically responsible for an excess of males at birth, the mothers, who are the legacy of such a history, belonging to a stock of male-producing tendency. The history of races, tribes and clans is a history of existence maintained by warfare: males were required in great numbers while females were required merely for the breeding of males. Hence, by social action, female-producing stocks might be eliminated. Such a theory would account for a high masculinity at birth: and it is not unremarkable that among highly civilized western nations the sex ratio at birth is smaller than it is in the east, because the need for males in the social organization is not so emphatic where existence depends on industrial and economic co-operation rather than on the extinction of competitors in the struggle for existence. It appears to be the fact that everywhere in the world sex-proportion is ever changing, never constant: and it is probable that the proportion changes in obedience to laws of adjustment to social and economic conditions which are at best only imperfectly understood. The increase in masculinity at birth was a phenomenon observed in most countries during the war whether or not those countries were involved in hostilities; and, in Bengal, there was a similar increase in masculinity before the war as if in anticipation of the wastage of male lives in the succeeding years.

134. Whatever be the valid theory concerning the causation of sex and the adjustment of sex-proportions in life at different periods, two facts are indisputable: first, that many countries show a marked deficiency of females, and, secondly, that the male sex is more variable in structure than the female, and, therefore, subject to greater mutations and so liable to greater risks in the general course of evolution. It is a commonplace that boys are constitutionally more delicate than girls. In Europe, where both sexes are equally well cared for, the higher death-rate among young males has obliterated the excess of males at birth, so that numerical equality between the sexes is usually established in early adolescence, while in old age the proportion of females to males exceeds unity².

135. The sex ratio in Palestine among Moslems is never so favourable to the females as it is in western countries, and the two facts under discussion can be reconciled in this country on the theory that the females are of a male producing stock, and that neglect of girl-children causes that mortality which is productive of a sex composition contrary to that experienced in western European countries. Both the tendency to produce males and the neglect of girl-children are the possible effects of a history of subjection of women. There is, therefore, nothing inconceivable in the suggestion that the modernizing tendencies operating in Palestine may, as social forces, be in opposition to the tradition of centuries, the natural effect being an attempt to reduce masculinity at birth. The records of births and deaths by sex and the information to be derived from the next census may help to reveal whether the suggestion made as to the changing sex-proportion is valid or otherwise.

This aspect of the problem is discussed in a later section of this chapter. In the meantime, it is of interest to recall that Düsing³ propounded the theory that a tendency exists which, while not expressing itself strongly, is sufficiently evident in the direction of equating the numbers of the sexes in a population, or that the

¹ The Evolution of Marriage.

² Assuming a sexually selective mortality operating before and after birth, the primary sex-ratio (*i.e.* the ratio at conception) is thought to be not less than 150 males to 100 females: the secondary sex-ratio (*i.e.* the ratio at birth) is in Great Britain about 103 males to 100 females: the sex-ratio in the age group 80 and over in Great Britain is 50 males to 100 females. The death-rate among females has been higher only at ages including the onset of puberty and of the female climacteric.—E.M.

³ Düsing, *Das Geschlechtsverhältnis im Königreich Preussen*. G. H. Knibbs, *Theory of Population*.

masculinity at birth is in some way affected by the masculinity of the population as denoted by the ratio of males to females. Naturally observations over a long series of years are required before the truth or otherwise of such a law can be determined. Even if observations tended to confirm the law, it could not necessarily be asserted that the masculinity at birth is affected directly by the masculinity of the population, for, as Knibbs¹ has pointed out, the variations in both may be due to some common cause itself a function of the time. The theory is interesting as bearing directly upon the problem of the sexes in the Moslem population.

It may, however, be added that many scores of theories of the causation of sex have been propounded and an equal number have been discarded.

Sex proportion among the Jews.

136. The sex-proportion among the Jews at different ages is less unreliable than the function for the Moslems, because the age-returns made by the Jews are not so heavily distorted by preferences for particular ages. Generally, the community is well-balanced in sex-proportion. Between the ages of 15 and 25 years females exceed the males: this feature probably reflects an age condition of immigration, the majority of male immigrants lying between the ages of 25 and 40 years and of female immigrants between 15 and 25 years. From the age of 40 years the females slightly exceed the males in number, the proportion obeying the universal law already mentioned that mortality is heavier at each age among males than among females. In the younger ages, there is a perceptible masculinity in the community of very much the same order as in the Moslem community², when allowance is made for incorrect age returns in the latter community. On the other hand, it has been shown in the preceding chapter that the Jewish community in Palestine shows a higher proportion of girls under the age of 15 years than the Jewish communities of Czecho-slovakia and Poland. While, among Jews of the type of settlers from Europe, no distinction is made between the sexes in their care of children, there is, nevertheless, as among Moslems, a strong tradition of centuries as to the superior value of the male in the economy of the world. It would appear, therefore, that Jewish mothers belong to male-producing stock and that, were it not for the care and attention given to children of both sexes, the proportion of females to males would be lower than it is at the ages from birth to 15 years. From time to time the theory has been advanced in regard to all people that there is a tendency to produce a male as the first-born. This theory has no strong authority; but there is some ground for supposing that the families of Jewish settlers are consciously limited, so that, in the early years of settlement in Palestine, the issue of parents in a not inconsiderable number will be limited to the first child. If the theory as to the masculinity of the first-born be valid, it would plausibly account for the Jewish sex-proportions in the early years of life under the conditions stated as to conscious limitation of families.

137. Dr. A. Ruppin³ gives figures which are the ratios of males to females⁴ in the Jewish and non-Jewish communities in certain countries. The following table reproduces his researches.

NUMBER OF MALES PER 1,000 FEMALES IN THE JEWISH AND NON-JEWISH COMMUNITIES IN DIFFERENT COUNTRIES AND TOWNS.

Country or Town	Year of census	Jewish Community	Non-Jewish Community
1	2	3	4
Countries :			
Germany... ..	1925	947	937
Czecho-slovakia	1921	959	929
Lithuania	1923	920	911
Towns :			
Warsaw	1921	844	809
Budapest	1925	949	842
Frankfurt	1925	940	886

¹ G. H. Knibbs, *Theory of Population*. Appendix A. Census of Commonwealth of Australia, 1911.

² In the age 0-5 years the ratio of females to males is for the Jews 0.952 and for the Moslems 0.966.—E.M.

³ Arthur Ruppin, *Soziologie der Juden*, Berlin, 1931.

⁴ The statistics of Palestine have been discussed in this chapter on the basis of the reciprocal ratio females to males.—E.M.

Dr. Ruppin explains the higher proportions of males in the Jewish communities by suggesting that the non-Jewish males are generally engaged in occupations that expose them to risks greater than those to which Jewish males are exposed, and that Jews tend to concentrate in the towns for educational and professional purposes. Dr. Ruppin's authority in these matters is unquestioned, but it is possible that the causes are more deeply rooted than his suggestions imply. Jewish life in Palestine may throw some light on this perplexing problem.

138. For all ages there are 991 Christian females to one thousand Christian males, but while this ratio for the whole community is almost ideal in a social sense, the proportions at the different ages are not so satisfactory. There is a marked deficiency of females up to the age of 30 years : and a most emphatic deficiency of males at ages above 45 years. The figures of the Christian community are, however, disturbed by the presence of a special immigrant population. This fact has a significant effect at the ages 20-25 years, in which group are to be found the great proportion of His Majesty's Forces, so that at this age the number of females per thousand males is only 745. The general deficiency of females in the early ages of life is probably to be explained on the general theory of social tradition in the east under which an inferior position is assigned to females. The deficiency of males after the age of 30 years may, perhaps, be partly due to an immigration of women from Europe, but most probably to the force of mortality which has, in general, a greater effect on males than on females.

Sex proportion among the Christians.

139. The sex proportions in the towns, with the exception of Tel Aviv, exhibit, in general, the main features of the proportions in the communities modified by the "weights" of the respective communities in the towns, and by the presence of men who have drifted into towns for purposes of employment. This is particularly the case of Haifa which, in virtue of its development, appears to be the centre of strongest attraction for men, the proportion of females between the ages of 20 and 50 years being very low. The returns by age groups show the effects of distortions due to ignorance of age, and distortion is particularly noticeable in the case of the town of Nablus. The town of Tel Aviv is interesting as showing generally preponderant female proportion at all ages excluding the groups 0-5 years, 10-25 years and 35-45 years. The deficiency of females in the group 0-5 years is merely a reflexion of masculinity at birth which has already been discussed. The deficiency of females between the ages of 10 and 15 years may be due to a special immigration into the town of boys from Jewish villages for purposes of special education. The excess of females between the ages of 15 and 30 years is compensated by a deficiency between 30 and 45 years : both features probably reflect the age condition and sex composition of immigrants, male immigrants on the whole being older than female immigrants and greater in number.

Sex proportion in the towns.

140. Mention has already been made of the fact that in almost all parts of the world the number of male births is greater than the number of female births, although the disparity is small¹. For many years theories as to the causation of sex have been advanced and discarded. Distinct progress has been made in the biological side, and much is hoped from development of knowledge of the endocrine basis of sexuality. In the sociological sense, however, no great advance in knowledge has been made. Hofacker in 1923 and Sadler in 1930 independently suggested that when the male parent is older the offspring are predeterminedly male, while, if the parents be of the same age or if the male be younger, female offspring appear in increasing majority². This conclusion, known as the Hofacker-Sadler law, receives both support and perplexing contradictions. The difficulty in discussing statistically such a law lies in the fact that it is almost impossible to survey properly all the possible factors involved.

Masculinity at birth.

¹ Indeed the almost exact equality in the numbers of boys and girls born into the world suggests that sex may follow Mendelian rules of descent.—E.M.

² F. A. E. Crew, "Sex" in "An Outline of Modern Knowledge", Gollancz, 1931.

141. The proportion of female births to male births in Palestine since 1923 is given in detail in Subsidiary Table IV at the end of this chapter. In discussing masculinity it is usual to employ the reciprocal ratios, namely, the proportion of male births to female births, this ratio being defined as the masculinity at birth. For convenience the following table gives this ratio for each year since 1926 and for each religion :—

RELIGION	Number of male births per 1,000 female births in the year						
	1926	1927	1928	1929	1930	1931	1926-1931
All religions	1,097	1,069	1,068	1,073	1,060	1,080	1,075
Moslems	1,108	1,065	1,078	1,069	1,070	1,082	1,079
Jews	1,096	1,093	1,029	1,033	1,021	1,076	1,057
Christians	995	1,092	1,028	1,168	1,023	1,054	1,058
Others	1,072	920	1,115	1,291	1,065	1,167	1,098

The ratios¹ for the period 1923-1931 are illustrated in Diagram No. 20. The following table gives the sex-ratio at birth in certain other countries :—

SEX RATIO AT BIRTH.
NUMBER OF MALES BORN ALIVE PER 1,000 FEMALES BORN ALIVE.

Country	Year	Sex ratio	Remarks
1	2	3	4
England and Wales	1921/29	1,045	
Albany	1923/29	1,218	
Austria	1921/29	1,064	
Bosnia	1886/1900	1,196	Moslems only
Bulgaria	1921/29	1,064	
Corea	1921/28	1,131	
France	1920/28	1,050	
Greece	1921/28	1,132	
India	1921/28	1,080	
Italy	1921/30	1,052	
Egypt	1921/29	1,081	
Spain	1921/29	1,085	
Palestine :	1923/31		
All religions	"	1,096	
Moslems	"	1,102	
Jews	"	1,082	
Christians	"	1,065	

142. The two principal inferences to be drawn from the statistics for Palestine are, first, there has been in the three communities a very definite progress towards an accurate registration of female births particularly during the last five years, and secondly, that it is only in the last five years that a degree of accuracy has been reached which justifies comparison of the secondary sex-ratios (masculinity at birth) of the populations in Palestine with those of other countries. It will be seen that on this basis the sex-ratios at birth in Palestine are not greatly dissimilar from those of other countries. If, indeed, the ratios prior to 1926 can be taken as representing the facts, there is definite ground for advancing the theory that the masculinity at birth has been reduced over the period since 1923. The general trend, however, of the series of ratios is towards stabilization at a figure not greatly different from that which is accepted in other countries. Consequently there seems to be a higher degree of probability in the theory that a more accurate registration of female births is responsible for the appearance of a

¹ These ratios are the reciprocal ratios of those shown in Subsidiary Table No. IV.—E.M.

DEATH OF FEMALES PER 1,000 DEATHS OF MALES

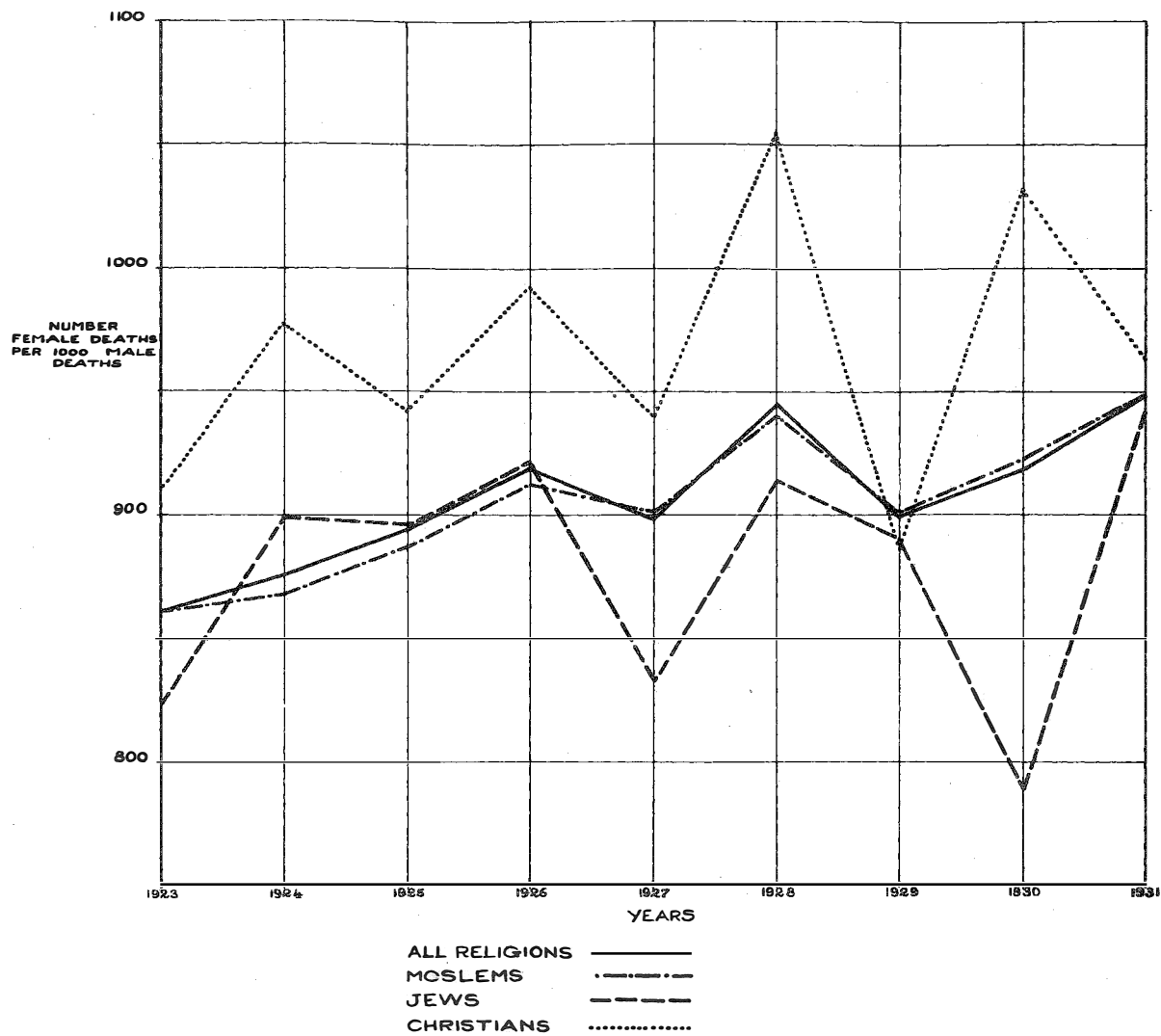
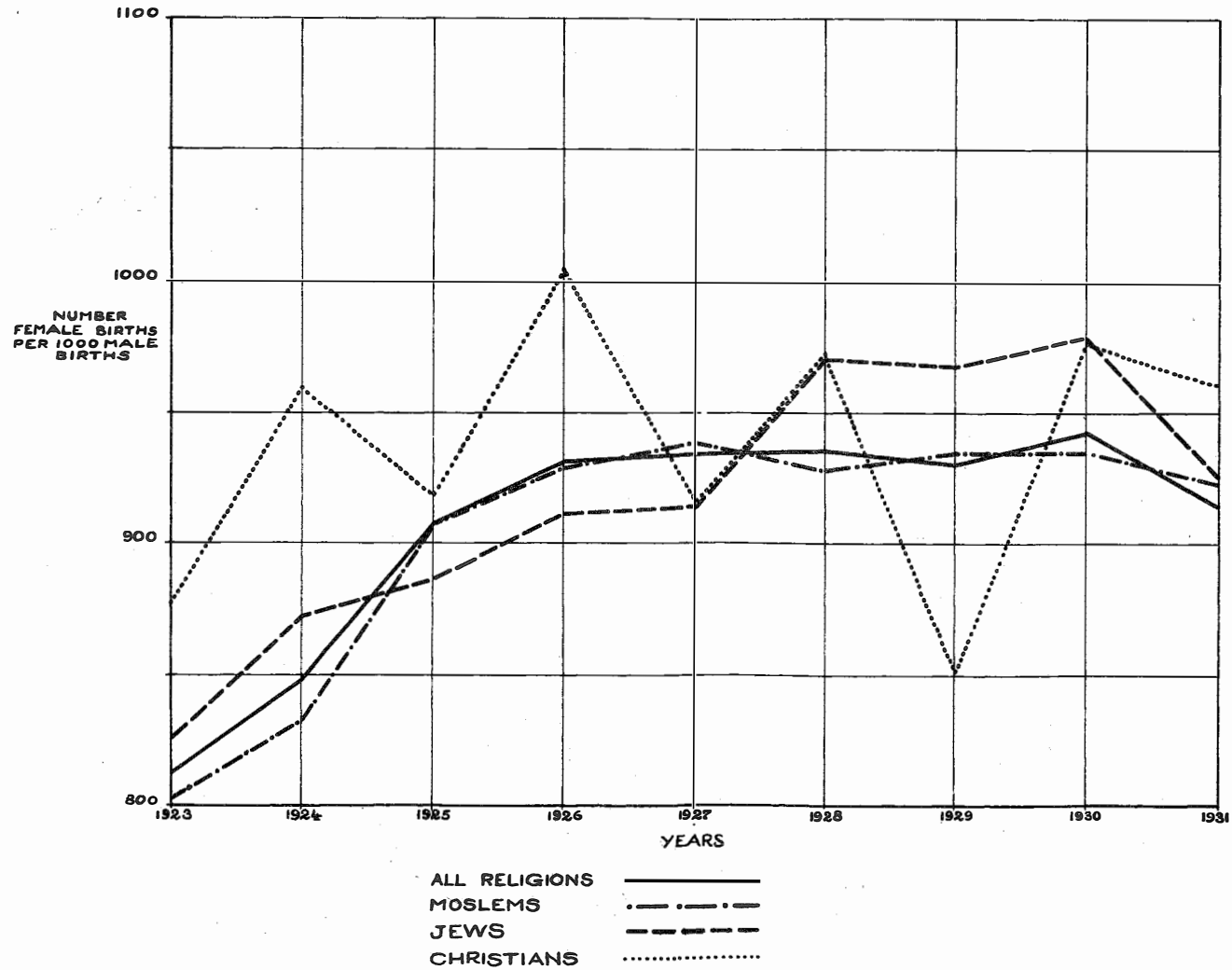


DIAGRAM No. 21

NUMBER OF FEMALE BIRTHS PER 1,000 MALE BIRTHS



reduction in masculinity, although the possibility of a reduction in masculinity as due to natural and social causes cannot be completely dismissed. The diagram illustrates well the gradual rise in the ratio of reported female births to reported male births and the present general steadiness of the curves for the Moslem and the total populations. As was to be expected in regard to events of natural life, the curve for the total population is governed by the factors determining the trend and fluctuations of the curve for the Moslems. The Jewish curve exhibits trend and fluctuations similar to those of the Moslem curve, but the masculinity at birth is clearly smaller. The curve for the Christian population exhibits the most violent fluctuations showing a yearly alternation of higher and lower masculinities. In general the registration of births among the Christians has a high degree of accuracy so that this biennial rhythm probably represents the facts.

143. The number of reported deaths of females per one thousand reported deaths of males is given in the last column of Subsidiary Table No. V at the end of this chapter. The statistics of the deaths of the sexes in main age periods are given in Subsidiary Table No. IV; the proportions of female deaths to male deaths for each year are illustrated in Diagram No. 21; and the numbers of deaths of females per thousand deaths of males at different ages are given in Diagram No. 22¹.

Sex proportion at death.

144. Considering first the changes in the sex proportions in deaths from year to year, it will be seen that the fluctuations are somewhat larger than the fluctuations in the curves defining the changes in sex-ratios at births. Generally, however, the trends of the curves are very similar in the two diagrams. The proportion of female deaths to male deaths shows, on the whole, a tendency to rise. This rise is more emphatic in the period 1923-1927 and the implication may be that there has been since then, as in the case of the births, a greater accuracy in the registration of female deaths. On the other side, under the law no deceased person may be buried without a burial certificate, and, in consequence of this provision of the law, it has always been considered that the registration of deaths had a high degree of accuracy. The general parallelism between the birth-ratio and death-ratio curves for the Moslems (and hence the total population) and the Christians is very remarkable, and, since the general accuracy of the Christian registrations both of births and deaths may be accepted, there is some ground for supposing that the rising trends of the Moslem curves represent a natural change combined with the effect of improved registrations. It would appear, therefore, that the sex proportions of females to males at birth and at death among the Moslems are both increasing, and that the adjustment of sexes among the living in the direction towards equality depends on the relative rates at which these proportions are changing. If the rate of change towards reduction of masculinity at birth is higher than the rate of change of the increasing sex-ratio of females to males at death, then there is a real tendency towards reducing the existing disparity in the numbers in the sexes. Unless, however, the natural increase of the females during a period bears to the natural increase of the males in the same period a ratio at least equal to that of the sexes in the living population at the beginning of the period, the present proportion of females to males in the living population must decline. It will be seen in a later paragraph that the statistics do not warrant a conclusion that the Moslem population has yet reached a stage at which it can be said that its masculinity is being effectively reduced throughout life.

145. The statistics of the sex-ratios in death at the different ages have a degree of unreliability due to ignorance of age similar to that already noted in the case of the sex-ratios at the different ages in the living population. This unreliability, however, is probably not so great in the case of the ages of deceased persons as in the case of living persons, because there will be no special temptation to

¹ In Chapter V (Age) the comparisons were between death-rates in the sexes, whereas here the comparisons are between occurrences of deaths in the sexes.—E.M.

introduce biased errors into the statements. The actual curves plotted are the ratios of the average number of deaths of females to deaths of males in the period 1923–1931. The curves are very crude because the age groups in which the returns have been compiled are irregular. Nevertheless, all the curves are comparable among themselves and with the horizontal axis, which represents 1,000 deaths of males at each age. As has been pointed out before, the curve for the total population is governed by the factors operating in the Moslem community. In all communities the proportion of female deaths to male deaths is highest between the ages of 1 year and 5 years, in the case of the Moslems and Jews the mode lying strictly between 1 year and 2 years, and in the case of the Christians between 2 years and 5 years. Rather surprisingly the peaks of the curves for the Jews and the Christians are above the horizontal line representing the male deaths, the proportion of female deaths at these ages being greater than unity. It seems probable that in both communities the very heavy mortality among girls at these early ages is not typical of the whole community, but only of those parts of the community having a low standard of life and culture. In these sections of the two communities it is likely that neglect of girl children is even more powerful an influence in regard to mortality than it is in the Moslem community. In any event, the statistics constitute a serious reproach to both communities as indicating a measure of indifference to the health and lives of young daughters.

146. In the Moslem community the ratio of female deaths to male deaths attains its maximum between one and two years of age, and declines slowly up to five years of age, confirming the view already advanced that there is a neglect of girl children in these early ages.

After the age of 20 years the ratios in all communities rise, reflecting, no doubt, the risks of childbirth.

In general, it will be seen that, apart from the exceptions between the ages of one and five years in the Jewish and Christian communities, the ratio of female deaths to male deaths is always less than unity. This experience marches with that of most countries in the world. Nevertheless, in the following section it will be shown that under present conditions the Moslem community which is deficient in females is not likely in the near future to remove the disparity in the numbers of the sexes.

Sex proportion at birth, and at death in the several religious communities.

147. The complete statistics of births and deaths according to sex for the period 1923–1931 are given in Subsidiary Table No. *IV* at the end of this chapter. In the following table the sex proportions at birth and death are set against the sex proportions in the population living in 1922 and 1931 :—

RELIGION	Females per 1,000 males period 1923–1931		Females per 1,000 males living at all ages	
	At birth	At death	1931	1922
All religions	912	909	973	951
Moslems	907	907	968	957
Jews	924	879	982	910
Christians	939	967	991	1,001

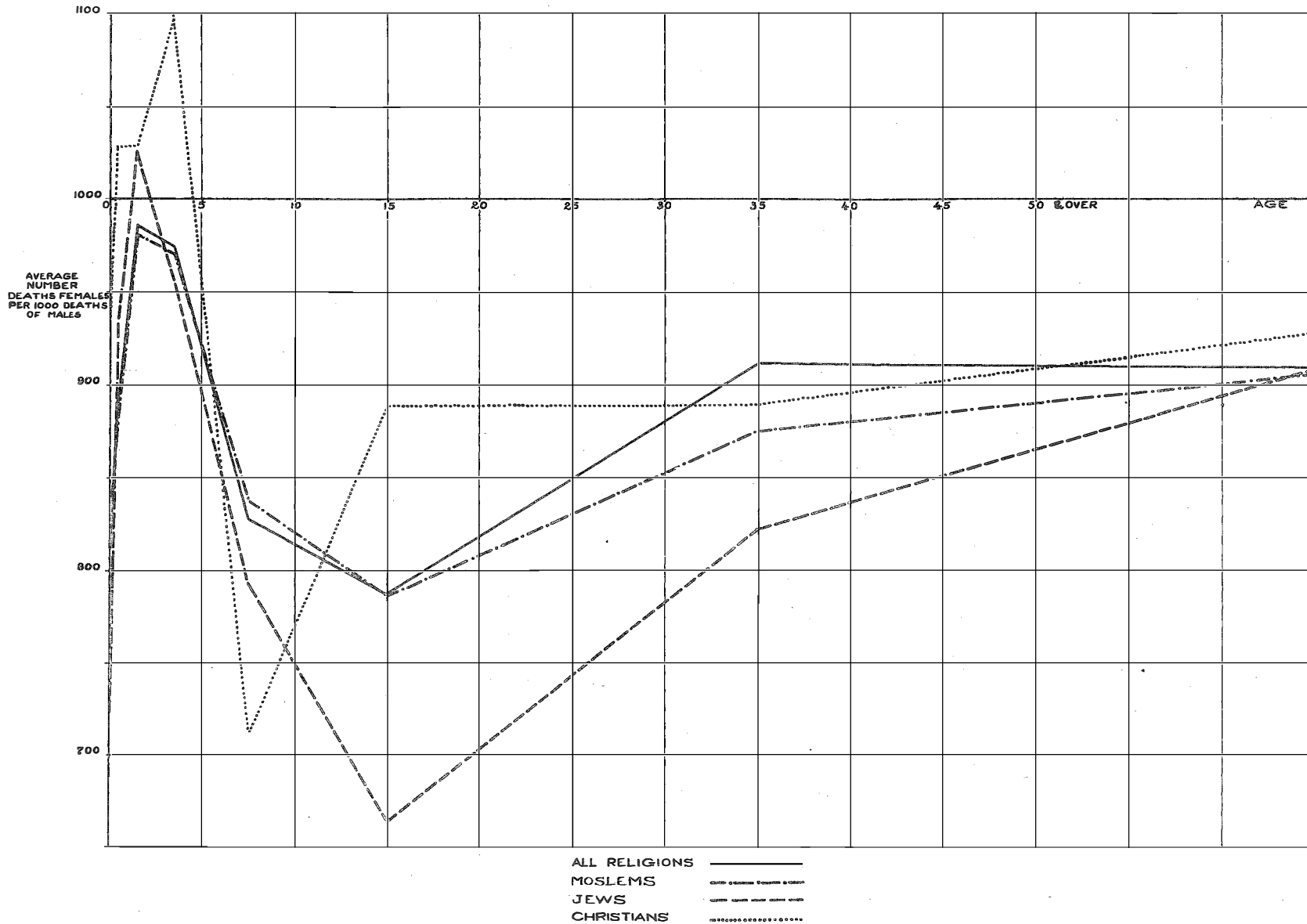
The comparison is significant as establishing in a crude manner the effects of the different rates of natural increase of males and females on the sex-ratio in the living population. As has already been pointed out, the proportion of females to males in the living population of all ages has risen for Moslems and Jews but has diminished in the case of the Christians. In the case of the Jews, the comparative table reveals that the sex proportion is increasing in the favour of females,

because the proportion of female births to male births is markedly higher than the proportion of female deaths to male deaths. This effect may, indeed, have had a greater influence in the increase of the sex-ratio than the extended facilities offered for the immigration of females during recent years. In the case of the Christians, the ratio of female births to male births is smaller than the ratio of female deaths to male deaths, so that in this community the loss of female lives in relation to male lives is not compensated by equilibrating changes in the birth ratio. Here again it may be that the influence of the ratios of natural increase on the sex-ratio among the living may be greatly more important than the return to Palestine of male Christian emigrants. The case of the Moslems is very interesting, particularly since this community is least disturbed by migration. The average sex proportions at birth and death for the period are equal, being 0.907, so that the natural increase of the female Moslem population is 0.907 times the natural increase of the male Moslem population. Since the sex-ratio among the living in 1931 is 0.968, the sex-ratio in natural increase, being 0.907, is smaller than the sex-ratio in the living population, and, consequently, the female sex is not maintaining itself at a rate to preserve the present sex-ratio among the living. It follows that, over the period under consideration, the sex-ratio in the living, based on considerations of natural increase, must have been declining. From Subsidiary Table I at the end of this chapter it will be seen that this is true of the natural population which is principally Moslem and, as was stated in paragraph above, this result follows legitimate expectation based on the effects of the war. In the actual population, however, the sex-ratio among the living Moslems has increased from 0.957 to 0.968. It follows that the change in sex proportions in the living population between 1922 and 1931 must be due to one or more of the following causes :—

- (i) a heavy mortality among males ;
- (ii) a reduction in mortality among females ;
- (iii) a significant emigration of males ;
- (iv) a short count of females at the census 1922 ;
- (v) an increase in favour of the females in the sex-ratio at birth ;
- (vi) a progressively more accurate registration of female births ;
- (vii) a combination of the preceding movements.

Hypotheses (i) and (ii) have no evidence to support them ; hypothesis (iii) is not valid, the emigration being insignificant : hypotheses (v) and (vi) are probably valid, but, as has been shown, have not had any material effect on the sex-ratio among the living. The only satisfactory explanation of the perplexing movement of the sex-ratio in the actual Moslem population since 1922 is that there was a short count of females at the census taken in that year.

AVERAGE NUMBER OF DEATHS OF FEMALES PER 1,000 DEATHS
OF MALES 1923-1931 AT DIFFERENT AGES



SUBSIDIARY TABLE No. I.

Part I.—Number of females per 1,000 males by districts and certain towns.

DISTRICT AND TOWN	NUMBER OF FEMALES PER 1,000 MALES			
	1931		1922	
	Actual population	Natural population	Actual population	Natural population
	2	3	4	5
<i>A.—Total population.</i>				
PALESTINE	967	938	956	965
SOUTHERN DISTRICT	938	...	914	...
JERUSALEM DISTRICT	1,001	...	983	...
NORTHERN DISTRICT	970	...	976	...
<i>B.—Settled population.</i>				
PALESTINE	973	...	951	...
SOUTHERN DISTRICT	952	...	895	...
JERUSALEM DISTRICT	1,003	...	972	...
NORTHERN DISTRICT	970	...	976	...
Jaffa Town	871	...	857	...
Tel Aviv Town	1,055	...	...	...
Jerusalem Town	977	...	919	...
Haifa Town	864	...	853	...
Nablus Town	1,025	...	965	...
<i>C.—Nomadic population.</i>				
PALESTINE	878	...	992	...
SOUTHERN DISTRICT	868	...	966	...
JERUSALEM DISTRICT	945	...	1,210	...
NORTHERN DISTRICT	*...	...	893	...

*Gypsies only

Part II.—Number of females per 1,000 males in natural populations 1931 and 1922.

YEAR	Natural population			Number of females per 1,000 males
	Persons	Males	Females	
1931	940,944	485,539	455,405	938
1922	745,350	379,349	366,001	965

SUBSIDIARY TABLE No. II.

Number of females per 1,000 males by districts, certain towns and religion at different age groups.

	All ages	0-1	1-2	2-3	3-4	4-5	0-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75& over
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PALESTINE	973	920	969	968	978	973	960	891	830	938	1,022	1,048	1,037	1,084	1,131	1,100
Moslems	968	923	979	975	985	975	966	874	797	922	1,073	1,054	1,004	1,057	1,103	1,056
Jews	982	905	959	977	953	971	952	959	953	1,038	914	957	1,075	1,114	1,148	1,079
Christians	991	916	913	890	938	949	921	923	890	845	954	1,180	1,234	1,226	1,299	1,571
Southern District	952	925	985	991	968	965	965	890	820	940	1,012	979	965	994	1,009	1,063
Jerusalem District	1,003	936	988	933	973	972	959	884	850	953	1,092	1,156	1,108	1,112	1,159	1,038
Northern District	970	905	946	971	988	979	957	897	825	928	993	1,038	1,051	1,143	1,215	1,192
Jaffa Town	871	(910)	(1,045)	(909)	(895)	(964)	939	866	784	863	915	785	831	892	(917)	(1,103)
Tel Aviv Town	1,055	(956)	(1,076)	(1,009)	(938)	(981)	990	1,012	965	1,253	1,046	970	1,026	1,111	(1,047)	(1,120)
Jerusalem Town	977	928	941	940	921	1,005	945	914	909	916	936	1,058	1,138	1,191	1,257	(1,119)
Haifa Town	864	(830)	(964)	(876)	(929)	(898)	896	955	928	821	775	806	916	(1,025)	(1,043)	(1,475)
Nablus Town	1,025	(1,035)	(917)	(1,019)	(1,022)	(940)	991	922	(804)	1,010	1,248	(1,118)	(1,137)	(871)	(1,214)	(1,658)

SEX

SUBSIDIARY TABLE No. III.

(a) Number of females per 1,000 males at different age periods by main religions at the last two censuses.

(Settled population 1931)

AGE	ALL RELIGIONS		MOSLEMS		JEWS		CHRISTIANS	
	1931	1922	1931	1922	1931	1922	1931	1922
1	2	3	4	5	6	7	8	9
All ages	973	951	968	957	982	910	991	1,001
0 - 1... ..	920		923		905		916	
1 - 2... ..	969		979		959		913	
2 - 3... ..	968		975		977		890	
3 - 4... ..	978		985		953		938	
4 - 5... ..	973		975		971		949	
0 - 5... ..	960	*873	966		952		921	
5 - 10	891		874		959		923	
10 - 15	830		979		953		890	
5 - 15... ..	868	*807						
15 - 20	883		813		1,054		995	
20 - 25	980		1,010		1,018		745	
15 - 25... ..	938	*1,209						
25 - 30	1,002		1,030		961		917	
30 - 35	1,049		1,130		853		1,002	
35 - 40	980		976		926		1,122	
40 - 45	1,139		1,157		1,000		1,258	
45 - 50	959		902		1,068		1,266	
50 - 55	1,125		1,124		1,083		1,201	
55 - 60	950		876		1,091		1,150	
60 - 65	1,199		1,202		1,136		1,303	
65 - 70	1,008		922		1,169		1,247	
70 - 75	1,260		1,283		1,124		1,361	
75 -	1,100		1,056		1,079		1,571	
25 & over	1,047	*985						

*The figures for 1922 in column (3) relate to the total population for that year and the comparison is therefore not exact.

SUBSIDIARY TABLE No. III.—concluded.

(b) Number of females per 1,000 males at different age periods in certain sub-districts at the last two censuses.

AGE	Jerusalem Sub-district		Ramallah Sub-district		Tulkarm Sub-district		Jenin Sub-district		Nazareth Sub-district		Beisan Sub-district		Tiberias Sub-district		Haifa Sub-district		Acre Sub-district		Safad Sub-district	
	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
0 - 5 ...	953	890	972	871	965	821	993	854	983	906	972	985	930	992	937	899	927	918	964	912
5 - 15 ...	880	859	897	735	834	741	888	770	905	846	839	737	879	871	896	874	837	857	1,086	671
15 - 25 ...	927	963	1,026	1,753	918	1,320	1,044	1,487	965	1,113	803	1,002	929	1,140	844	1,007	932	1,206	975	1,514
25 - ...	1,097	1,000	1,252	1,060	1,078	1,063	1,155	1,061	1,156	1,098	900	875	1,039	992	890	878	853	1,035	991	1,053

(c) Number of females per 1,000 males at different age periods in certain towns at the last two censuses.

AGE	JAFFA		TEL AVIV		JERUSALEM		HAIFA		NABLUS	
	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922
1	2	3	4	5	6	7	8	9	10	11
0 - 5 ...	939	809	990	...	945	920	896	965	991	940
5 - 15 ...	836	977	992	...	912	881	945	930	875	789
15 - 25 ...	862	933	1,253	...	916	855	821	888	1,010	1,348
25 - ...	867	793	1,033	...	1,051	972	884	778	1,154	947

SUBSIDIARY TABLE No. IV.

Actual number of births and deaths reported since 1923 by sex and religion.

YEAR	NUMBER OF BIRTHS			NUMBER OF DEATHS			Difference between (2) and (5) Excess of (2) over (5) (+) Defect (—)	Difference between (3) and (4) Excess of (3) over (4) (+) Defect (—)	Difference between (6) and (7) Excess of (6) over (7) (+) Defect (—)	Number of female births per 1,000 male births 1923-1931	Number of female deaths per 1,000 male deaths 1923-1931
	Persons	Males	Females	Persons	Males	Females					
1	2	3	4	5	6	7	8	9	10	11	12
ALL RELIGIONS	355,668	186,003	169,665	180,110	94,359	85,751	175,558	16,338	8,608	912	909
1923 ...	30,286	16,693	13,593	17,010	9,137	7,873	+ 13,276	+ 3,100	+ 1,264	814	862
1924 ...	34,296	18,542	15,754	17,751	9,455	8,296	+ 16,545	+ 2,788	+ 1,159	849	877
1925 ...	35,404	18,557	16,847	19,603	10,346	9,257	+ 15,801	+ 1,710	+ 1,089	908	895
1926 ...	41,185	21,313	19,872	18,631	9,705	8,926	+ 22,554	+ 1,441	+ 779	932	920
1927 ...	39,224	20,267	18,957	21,803	11,482	10,321	+ 17,421	+ 1,310	+ 1,161	935	899
1928 ...	42,901	22,160	20,741	23,040	11,840	11,200	+ 19,861	+ 1,419	+ 640	936	946
1929 ...	41,738	21,609	20,129	21,628	11,381	10,247	+ 20,110	+ 1,480	+ 1,134	931	900
1930 ...	44,587	22,947	21,640	19,512	10,168	9,344	+ 25,075	+ 1,307	+ 824	943	919
1931 ...	46,047	23,915	22,132	21,132	10,845	10,287	+ 24,915	+ 1,783	+ 558	925	949
MOSLEMS	281,981	147,840	134,141	151,120	79,244	71,876	130,861	13,699	7,368	907	907
1923 ...	24,157	13,389	10,768	14,436	7,759	6,677	+ 9,721	+ 2,621	+ 1,082	804	861
1924 ...	27,352	14,923	12,429	15,184	8,124	7,060	+ 12,168	+ 2,494	+ 1,064	833	869
1925 ...	28,161	14,771	13,390	16,114	8,534	7,580	+ 12,047	+ 1,381	+ 954	907	888
1926 ...	32,414	16,802	15,612	15,202	7,947	7,255	+ 17,212	+ 1,190	+ 692	929	913
1927 ...	30,616	15,791	14,825	18,027	9,478	8,549	+ 12,589	+ 966	+ 929	939	902
1928 ...	34,034	17,656	16,378	19,566	10,080	9,486	+ 14,468	+ 1,278	+ 594	928	941
1929 ...	33,050	17,076	15,974	18,143	9,537	8,606	+ 14,907	+ 1,102	+ 931	935	902
1930 ...	35,515	18,358	17,157	16,437	8,548	7,889	+ 19,078	+ 1,201	+ 659	935	923
1931 ...	36,682	19,074	17,608	18,011	9,237	8,774	+ 18,671	+ 1,466	+ 463	923	950
JEWS	42,885	22,290	20,595	14,881	7,918	6,963	28,004	1,695	955	924	879
1923 ...	3,269	1,789	1,480	1,318	722	596	+ 1,951	+ 309	+ 126	827	825
1924 ...	3,623	1,934	1,689	1,153	607	546	+ 2,470	+ 245	+ 61	873	900
1925 ...	3,974	2,106	1,868	1,812	955	857	+ 2,162	+ 238	+ 98	887	897
1926 ...	5,309	2,776	2,533	1,783	927	856	+ 3,526	+ 243	+ 71	912	923
1927 ...	5,183	2,707	2,476	1,987	1,084	903	+ 3,196	+ 231	+ 181	915	833
1928 ...	5,298	2,687	2,611	1,806	943	863	+ 3,492	+ 76	+ 80	972	915
1929 ...	5,263	2,674	2,589	1,815	960	855	+ 3,448	+ 85	+ 105	968	891
1930 ...	5,434	2,745	2,689	1,558	871	687	+ 3,876	+ 56	+ 184	980	789
1931 ...	5,532	2,872	2,660	1,649	849	800	+ 3,883	+ 212	+ 49	926	942
CHRISTIANS	27,069	13,963	13,106	12,245	6,226	6,019	14,824	857	207	939	967
1923 ...	2,566	1,366	1,200	1,133	593	540	+ 1,433	+ 166	+ 53	878	911
1924 ...	2,973	1,517	1,456	1,234	624	610	+ 1,739	+ 61	+ 14	960	978
1925 ...	2,777	1,447	1,330	1,409	725	684	+ 1,368	+ 117	+ 41	919	943
1926 ...	3,004	1,498	1,506	1,350	677	673	+ 1,654	— 8	+ 4	1,005	994
1927 ...	2,991	1,561	1,430	1,552	800	752	+ 1,439	+ 131	+ 48	916	940
1928 ...	3,165	1,604	1,561	1,483	721	762	+ 1,682	+ 43	— 41	973	1,057
1929 ...	3,031	1,637	1,394	1,430	758	672	+ 1,601	+ 243	+ 86	852	887
1930 ...	3,223	1,630	1,593	1,340	659	681	+ 1,883	+ 37	— 22	977	1,033
1931 ...	3,339	1,703	1,636	1,314	669	645	+ 2,025	+ 67	+ 24	961	964
OTHERS	3,733	1,910	1,823	1,864	971	893	1,869	87	78	954	920
1923 ...	294	149	145	123	63	60	+ 171	+ 4	+ 3	973	952
1924 ...	348	168	180	180	100	80	+ 168	— 12	+ 20	1,071	800
1925 ...	492	233	259	268	132	136	+ 224	— 26	— 4	1,112	1,030
1926 ...	458	237	221	296	154	142	+ 162	+ 16	+ 12	932	922
1927 ...	434	208	226	237	120	117	+ 197	— 18	+ 3	1,087	975
1928 ...	404	213	191	185	96	89	+ 219	+ 22	+ 7	897	927
1929 ...	394	222	172	240	126	114	+ 154	+ 50	+ 12	775	905
1930 ...	415	214	201	177	90	87	+ 238	+ 13	+ 3	939	967
1931 ...	494	266	228	158	90	68	+ 336	+ 38	+ 22	857	756

SUBSIDIARY TABLE No. V.
Number of deaths at different ages since 1923.

AGE GROUP	1923			1924			1925		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10
ALL RELIGIONS	17,010	9,137	7,873	17,751	9,455	8,296	19,603	10,346	9,257
Under 1 month	1,142	641	501	1,563	836	727	1,728	967	761
1 month—1 year	3,850	2,077	1,773	4,293	2,299	1,994	4,179	2,169	2,010
1 - 2 years	2,901	1,497	1,404	2,744	1,397	1,347	2,936	1,508	1,428
2 - 5	3,208	1,653	1,555	2,967	1,574	1,393	3,644	1,837	1,807
5 - 10	538	306	232	564	304	260	741	403	338
10 - 20	742	419	323	727	407	320	757	419	338
20 - 50	2,241	1,238	1,003	2,249	1,215	1,034	2,672	1,422	1,250
50 and over	2,353	1,285	1,068	2,620	1,408	1,212	2,940	1,617	1,323
Unknown	35	21	14	24	15	9	6	4	2
MOSLEMS	14,436	7,759	6,677	15,184	8,124	7,060	16,114	8,534	7,580
Under 1 month	902	499	403	1,283	678	605	1,403	779	624
1 month—1 year	3,336	1,811	1,525	3,709	1,997	1,712	3,481	1,825	1,656
1 - 2 years	2,561	1,323	1,238	2,478	1,279	1,199	2,462	1,279	1,183
2 - 5	2,947	1,539	1,408	2,778	1,481	1,297	3,258	1,657	1,601
5 - 10	485	272	213	520	279	241	657	360	297
10 - 20	630	355	275	608	344	264	637	350	287
20 - 50	1,866	1,033	833	1,881	1,014	867	2,179	1,154	1,025
50 and over	1,674	906	768	1,907	1,039	868	2,035	1,130	905
Unknown	35	21	14	20	13	7	2	...	2
JEWS	1,318	722	596	1,153	607	546	1,812	955	857
Under 1 month	161	100	61	164	95	69	214	127	87
1 month—1 year	242	133	109	209	104	105	314	150	164
1 - 2 years	133	90	93	101	47	54	235	105	130
2 - 5	116	53	63	69	37	32	138	64	74
5 - 10	22	12	10	19	14	5	48	22	26
10 - 20	48	28	20	42	23	19	39	24	15
20 - 50	186	109	77	176	96	80	282	161	121
50 and over	360	197	163	373	191	182	540	300	240
Unknown ... ..	...	...	...	...	...	...	2	2	...
CHRISTIANS	1,133	593	540	1,234	624	610	1,409	725	684
Under 1 month	75	39	36	105	55	50	102	54	48
1 month—1 year	250	124	126	332	170	162	333	170	163
1 - 2 years	124	64	60	147	67	80	192	99	93
2 - 5	132	55	77	97	44	53	200	94	106
5 - 10	29	22	7	17	7	10	28	16	12
10 - 20	56	31	25	65	34	31	63	36	27
20 - 50	170	89	81	165	85	80	163	85	78
50 and over	297	169	128	306	162	144	326	169	157
Unknown ... ..	...	...	...	...	...	...	2	2	...
OTHERS	123	63	60	180	100	80	268	132	136
Under 1 month	4	3	1	11	8	3	9	7	2
1 month—1 year	22	9	13	43	28	15	51	24	27
1 - 2 years	33	20	13	18	4	14	47	25	22
2 - 5	13	6	7	23	12	11	48	22	26
5 - 10	2	...	2	8	4	4	8	5	3
10 - 20	8	5	3	12	6	6	18	9	9
20 - 50	19	7	12	27	20	7	48	22	26
50 and over	22	13	9	34	16	18	39	18	21
Unknown ... ..	...	...	...	4	2	2	...	...	...

SUBSIDIARY TABLE No. V.—continued.

Number of deaths at different ages since 1923.

AGE GROUP	1926			1927			1928			1929		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
	11	12	13	14	15	16	17	18	19	20	21	22
ALL RELIGIONS	18,631	9,705	8,926	21,803	11,482	10,321	23,040	11,840	11,200	21,628	11,381	10,247
Under 1 month	1,803	1,005	798	1,911	1,079	832	1,769	943	826	1,749	965	784
1 month—1 year	4,151	2,234	1,947	5,202	2,756	2,446	5,318	2,817	2,501	5,305	2,814	2,491
1 - 2 years	2,623	1,263	1,360	3,229	1,646	1,583	3,624	1,776	1,848	2,990	1,556	1,434
2 - 5	3,175	1,642	1,533	4,024	2,062	1,962	5,126	2,566	2,560	3,780	1,847	1,933
5 - 10	629	320	309	753	415	338	789	436	353	742	408	334
10 - 20	700	374	326	647	371	276	583	313	270	628	386	242
20 - 50	2,524	1,355	1,169	2,537	1,357	1,180	2,485	1,288	1,197	2,774	1,513	1,261
50 and over	3,008	1,534	1,474	3,489	1,790	1,699	3,329	1,691	1,638	3,634	1,873	1,761
Unknown	18	8	10	11	6	5	17	10	7	26	19	7
MOSLEMS	15,202	7,947	7,255	18,027	9,478	8,549	19,566	10,080	9,486	18,143	9,537	8,606
Under 1 month	1,437	792	645	1,533	852	681	1,493	806	687	1,488	817	671
1 month—1 year	3,415	1,834	1,581	4,361	2,311	2,049	4,578	2,452	2,126	4,564	2,433	2,131
1 - 2 years	2,274	1,095	1,179	2,781	1,417	1,364	3,187	1,557	1,630	2,637	1,377	1,260
2 - 5	2,893	1,494	1,399	3,718	1,918	1,800	4,803	2,391	2,412	3,523	1,721	1,802
5 - 10	553	280	273	676	370	306	702	388	314	652	359	293
10 - 20	550	293	257	537	305	232	491	264	227	531	329	202
20 - 50	2,036	1,111	925	2,061	1,091	970	2,034	1,062	972	2,226	1,202	1,024
50 and over	2,030	1,044	986	2,352	1,208	1,144	2,266	1,153	1,113	2,512	1,293	1,219
Unknown	14	4	10	9	6	3	12	7	5	10	6	4
JEWS	1,783	927	856	1,987	1,084	903	1,806	943	863	1,815	960	855
Under 1 month	233	144	89	223	141	82	158	81	77	135	81	54
1 month—1 year	336	175	161	383	205	178	337	186	151	333	166	167
1 - 2 years	134	60	74	199	109	90	199	105	94	138	69	69
2 - 5	112	58	54	118	56	62	108	66	42	82	38	44
5 - 10	34	15	19	30	18	12	44	25	19	41	19	22
10 - 20	79	49	30	47	31	16	42	22	20	61	39	22
20 - 50	264	130	134	263	148	115	268	136	132	310	183	127
50 and over	589	294	295	724	376	348	647	319	328	700	353	347
Unknown	2	2	...	...	...	...	3	3	...	15	12	3
CHRISTIANS	1,350	677	673	1,552	800	752	1,483	721	762	1,430	758	672
Under 1 month	118	58	60	145	82	63	111	53	58	115	62	53
1 month—1 year	337	165	172	409	214	195	364	164	200	353	187	166
1 - 2 years	166	80	86	197	92	105	198	97	101	173	89	84
2 - 5	122	67	55	157	75	82	180	86	94	136	65	71
5 - 10	27	15	12	40	23	17	39	19	20	33	21	12
10 - 20	53	24	29	54	31	23	45	23	22	31	17	14
20 - 50	186	96	90	181	100	81	163	79	84	211	115	96
50 and over	341	172	169	369	183	186	383	200	183	377	201	176
Unknown ... ..	...	...	...	...	...	...	...	...	...	1	1	...
OTHERS	296	154	142	237	120	117	185	96	89	240	126	114
Under 1 month	15	11	4	10	4	6	7	3	4	11	5	6
1 month—1 year	63	30	33	50	26	24	39	15	24	55	28	27
1 - 2 years	49	28	21	52	28	24	40	17	23	42	21	21
2 - 5	48	23	25	31	13	18	35	23	12	39	23	16
5 - 10	15	10	5	7	4	3	4	4	...	16	9	7
10 - 20	18	8	10	9	4	5	5	4	...	5	1	4
20 - 50	38	18	20	32	18	14	20	11	9	27	13	14
50 and over	48	24	24	44	23	21	33	19	14	45	26	19
Unknown	2	2	...	2	...	2	2	...	2	...	...	...

SUBSIDIARY TABLE No. V.—concluded.

Number of deaths at different ages since 1923.

AGE GROUP	1930			1931			TOTAL			Average number of female deaths per 1,000 male deaths 1923-1931
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	
	23	24	25	26	27	28	29	30	31	32
ALL RELIGIONS ...	19,512	10,168	9,344	21,132	10,845	10,287	180,110	94,359	85,751	909
Under 1 month ...	1,717	958	759	1,754	957	797	15,136	8,351	6,785	812
1 month—1 year ...	4,541	2,366	2,175	5,367	2,729	2,638	42,206	22,231	19,975	899
1 - 2 years ...	2,692	1,351	1,341	2,780	1,352	1,428	26,519	13,346	13,173	987
2 - 5 ...	3,414	1,701	1,713	4,118	2,058	2,060	33,456	16,940	16,516	975
5 - 10 ...	674	381	293	783	425	358	6,213	3,398	2,815	828
10 - 20 ...	517	288	229	529	284	245	5,830	3,261	2,569	788
20 - 50 ...	2,489	1,311	1,178	2,362	1,237	1,125	22,333	11,936	10,397	912
50 and over ...	3,461	1,809	1,652	3,429	1,794	1,635	28,263	14,801	13,462	910
Unknown ...	7	3	4	10	9	1	154	95	59	...
MOSLEMS...	16,437	8,548	7,889	18,011	9,237	8,774	151,120	79,244	71,876	907
Under 1 month ...	1,479	834	645	1,515	839	676	12,533	6,896	5,637	817
1 month—1 year ...	3,938	2,067	1,871	4,664	2,393	2,271	36,045	19,123	16,922	885
1 - 2 years ...	2,414	1,209	1,205	2,531	1,232	1,299	23,325	11,768	11,557	982
2 - 5 ...	3,228	1,608	1,620	3,912	1,950	1,962	31,060	15,759	15,301	971
5 - 10 ...	603	339	264	707	375	332	5,555	3,022	2,533	838
10 - 20 ...	426	240	186	439	234	205	4,849	2,714	2,135	787
20 - 50 ...	2,031	1,064	967	1,912	983	929	18,226	9,714	8,512	876
50 and over ...	2,312	1,185	1,127	2,323	1,224	1,099	19,411	10,182	9,229	906
Unknown ...	6	2	4	8	7	1	116	66	50	...
JEWS ...	1,558	871	687	1,649	849	800	14,881	7,918	6,963	879
Under 1 month ...	125	69	56	122	53	69	1,535	891	644	723
1 month—1 year ...	247	137	110	330	156	174	2,731	1,412	1,319	934
1 - 2 years ...	102	55	47	119	56	63	1,410	696	714	1,026
2 - 5 ...	66	39	27	85	46	39	894	457	437	956
5 - 10 ...	35	23	12	32	22	10	305	170	135	794
10 - 20 ...	45	28	17	45	25	20	448	269	179	665
20 - 50 ...	272	144	128	247	137	110	2,268	1,244	1,024	823
50 and over ...	666	376	290	669	354	315	5,268	2,760	2,508	909
Unknown ...	...	...	...	...	...	...	22	19	3	...
CHRISTIANS ...	1,340	659	681	1,314	669	645	12,245	6,226	6,019	967
Under 1 month ...	93	44	49	106	56	50	970	503	467	928
1 month—1 year ...	324	143	181	330	158	172	3,032	1,495	1,537	1,028
1 - 2 years ...	149	73	76	103	53	50	1,449	714	735	1,029
2 - 5 ...	98	45	53	107	55	52	1,229	586	643	1,099
5 - 10 ...	24	13	11	39	25	14	276	161	115	714
10 - 20 ...	39	18	21	42	23	19	448	237	211	890
20 - 50 ...	168	93	75	179	97	82	1,586	839	747	890
50 and over ...	444	229	215	406	200	206	3,249	1,685	1,564	928
Unknown ...	1	1	...	2	2	...	6	6	...	...
OTHERS ...	177	90	87	158	90	68	1,864	971	893	920
Under 1 month ...	20	11	9	11	9	2	98	61	37	607
1 month—1 year ...	32	19	13	43	22	21	398	201	197	980
1 - 2 years ...	27	14	13	27	11	16	335	168	167	994
2 - 5 ...	22	9	13	14	7	7	273	138	135	978
5 - 10 ...	12	6	6	5	3	2	77	45	32	711
10 - 20 ...	7	2	3	3	2	1	85	41	44	1,073
20 - 50 ...	18	10	8	24	20	4	253	139	114	820
50 and over ...	39	19	20	31	16	15	335	174	161	925
Unknown ...	...	...	...	...	...	...	10	4	6	...

CHAPTER VII.—CONJUGAL CONDITION.

Introductory. 148. The instruction to the enumerators in regard to conjugal condition was :—
 “Enter each person whether infant, child or adult as either ‘Never married’ or ‘Married’ or ‘Divorced’ or ‘Widowed’.”

Further directions were given to the effect that

“Persons who are recognized by custom as married are to be entered as ‘married’ even though they have not gone through a full ceremony.”

The intention was, therefore, to obtain a record of marital condition as established by legal process ; and, apart from foreigners, legal process in matters of personal status is a function of religious courts, there being a limited civil jurisdiction usually of appellate character in these matters. On the other hand, there are cases in Palestine as in most countries in which, for one reason or another, the legal formalities of marriage have not been observed although the cohabitation of the persons has been of good repute and is recognized by neighbours and friends as marriage. Persons living in this relationship are therefore included in the statistics of married condition. Apart from minor disturbances due to an incorrect return of ages, the statistics may be taken as fairly reliable although there are indications that a few young Moslem females, who are contracted in marriage but have neither completed their betrothals nor cohabited with their prospective husbands, have been returned as in the married condition. It is also possible that some unmarried mothers in all communities have been returned as wives.

The statistics. 149. The absolute statistics are given in Volume II Table VIII, and the following series of Subsidiary Tables will be found at the end of this chapter :—

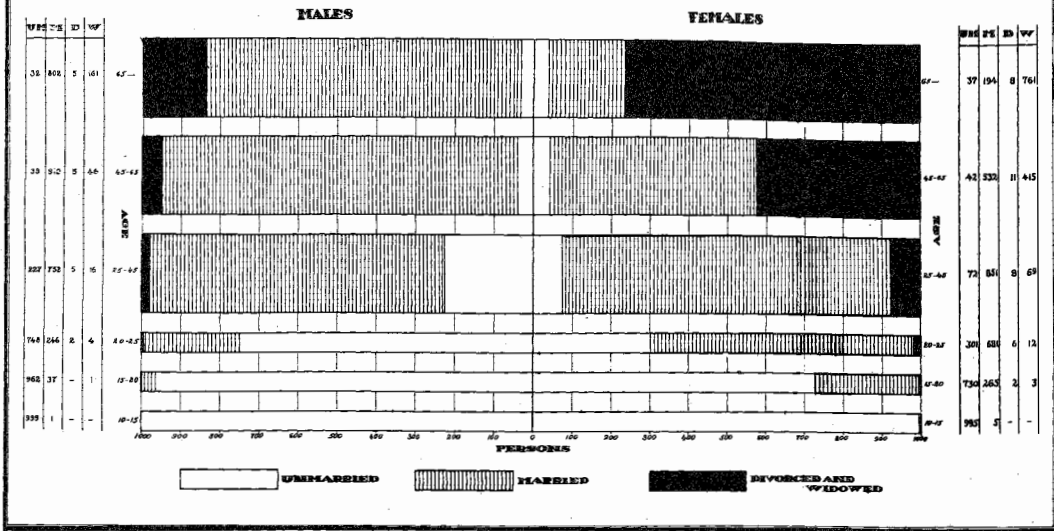
- Subsidiary Table I.* — Distribution by conjugal condition of 1,000 of each sex, religion and main age period at each of the last censuses¹.
- Subsidiary Table II.* — Distribution by conjugal condition of 1,000 persons of each sex of all ages and in 11 religions at censuses of 1922 and 1931.
- Subsidiary Table III.*— Distribution by conjugal condition of 1,000 of each sex in main age periods in each district and certain towns.
- Subsidiary Table IV.* — Distribution by main age periods and conjugal condition of 10,000 of each sex and religion.
- Subsidiary Table V.* — Proportion of sexes by conjugal condition in the three main religions, the three districts and the four principal towns.
- Subsidiary Table VI.* — Number of persons unmarried per 1,000 of each sex and religion by main age period.
- Subsidiary Table VII.*— Number of females widowed per 1,000 females of each religion by main age period.

General features of the statistics.

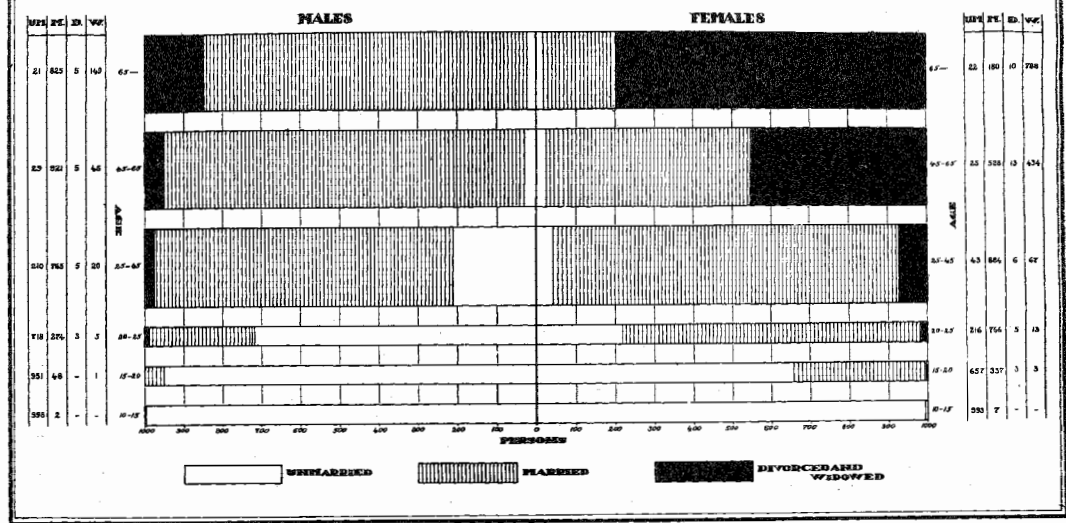
150. For the comparison of the statistics with those of other countries it is necessary to treat the whole population as one before discussing the features of the respective communities ; but it must be borne in mind that the marriage customs and the ideas that prevail about marriage vary in the different communities so that the statistics for the whole population are not strictly comparable with those of populations of different structure. Taking then the whole of the settled population at all ages from 15 years upward, 34 per cent. of the males are unmarried, 62.8 per cent. married, and 3.2 per cent. widowed

¹ The figures of 1922 and 1931 are not comparable.—E.M.

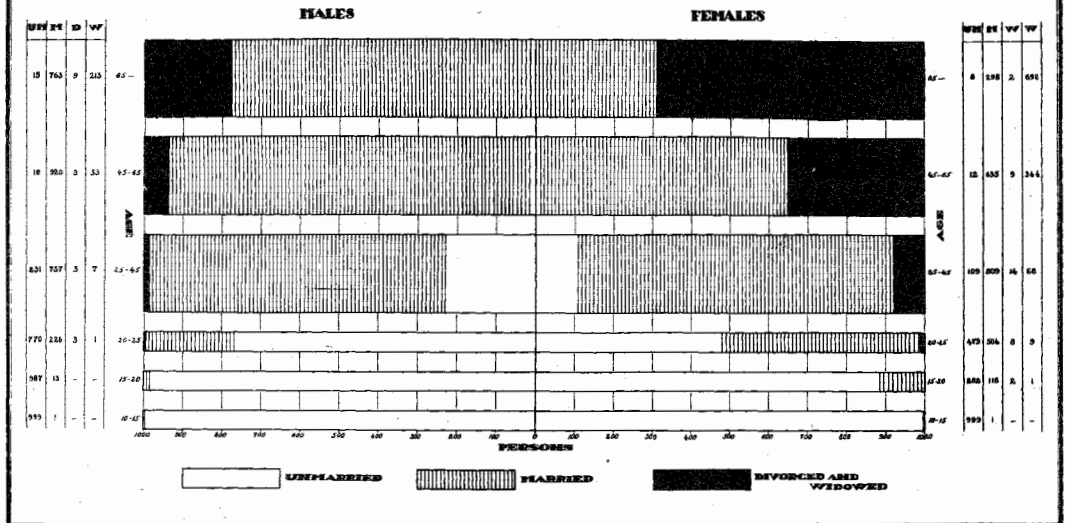
Proportion of unmarried, married, divorced and widowed males and females per 1,000 living in each age group 1931
ALL RELIGIONS



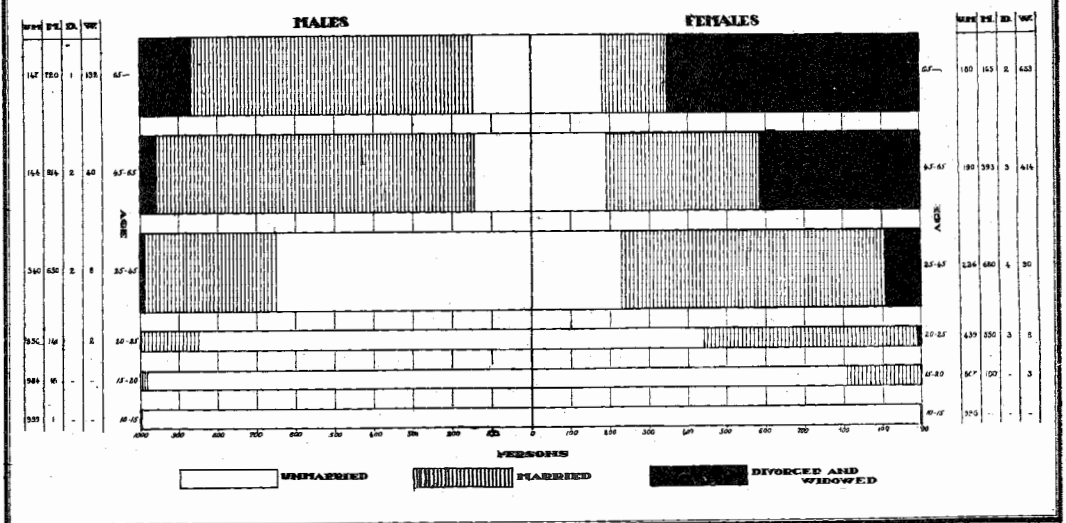
Proportion of unmarried, married, divorced and widowed males and females per 1,000 living in each age group 1931
MOSLEMS



Proportion of unmarried, married, divorced and widowed males and females per 1,000 living in each age group 1931
JEWS



Proportion of unmarried, married, divorced and widowed males and females per 1,000 living in each age group 1931
CHRISTIANS



(II) INTERCENSAL INCREASE OR DECREASE (-)
1922 - 1931

Age	MALES				FEMALES			
	Total	Un-married	Married	Widowed or Divorced	Total	Un-married	Married	Widowed or Divorced
All ages								
- 15								
15 - 20								
20 - 25								
25 - 30								
30 - 35								
35 - 45								
45 - 55								
55 - 65								
65 - 75								
75 -								

(III) INTERCENSAL INCREASE OR DECREASE (-)
PER CENT. 1922 - 1931.

Age	MALES				FEMALES			
	Total	Un-married	Married	Widowed or Divorced	Total	Un-married	Married	Widowed or Divorced
All ages								
- 15								
15 - 20								
20 - 25								
25 - 30								
30 - 35								
35 - 45								
45 - 55								
55 - 65								
65 - 75								
75 -								

Comparisons
with other
countries.

151. The comparison between the proportions in the conjugal conditions for persons aged 15 years and upward and those proportions in certain other countries is given below :—

POPULATION AGED 15 YEARS AND UPWARDS BY CONJUGAL CONDITION IN DIFFERENT COUNTRIES OF THE WORLD.

Country	Year of census	MALES				FEMALES			
		Un-married	Married	Widowed	Divorced	Un-married	Married	Widowed	Divorced
Austria	1920	465	477		58	426	431		143
Bulgaria	1926	280	670	48	2	212	663	122	3
Egypt	1927	302	657	25	16	119	657	197	27
England and Wales (U.K.) ..	1921	365	584	50	1	368	520	111	1
France	1926	312	621	61	7	263	558	169	9
Germany	1925	379	577	40	5	354	523	115	8
India	1921	208	688		105	44	673		282
Latvia	1930	404	551	40	5	357	466	168	9
Switzerland	1920	439	504	49	8	419	455	115	12
Palestine	1931								
(All religions)		340	628	28	4	162	652	178	8
Moslems		315	650	31	4	117	689	186	8
Christians		477	500	22	1	317	484	196	3
Jews		357	614	24	5	239	611	140	10

So far as the males are concerned (taking the whole of the settled population without distinction of religious community), the proportions reveal no great abnormality, those for the unmarried and married being somewhat higher than the average proportions in European countries and approximating closely to those in Egypt. The proportion of widowers, however, is markedly smaller than that found in European countries in general, probably because remarriage of widowers is more nearly the rule than the exception.

The statistics for the females show, however, that marriage, while not universal as in India, is greatly more prevalent than in European countries, and the higher proportion of widows is partly due to this fact.

In general, for both sexes, the figures relating to the divorced are not strictly comparable with those from European countries, where the returns are almost certainly deficient owing to the stigma which is attached to the condition. In Palestine, apart from an element of the Christian population, divorce may be granted for reasons not connected with marital offences as these are understood in Europe, and there is therefore little of the social ostracism which, until recent years, made divorced persons in Europe reluctant to admit their status. As a consequence of this expression of social opinion the statistics of the widowed in European countries have been to some extent inflated by the inclusion of persons whose status is strictly that of divorced persons while there is a compensatory deficiency in the statistics of the divorced. Sociologically the two conditions, the conditions of widowhood and of divorce, are of equivalent value, so that the comparative statistics should be examined regarding the widowed and the divorced as forming one class.

152. The following table analyses the proportions unmarried at each material age in life, and comparison is made between those proportions and the proportions existing in the same countries as appear in the table given in the preceding paragraph :—

PROPORTION OF UNMARRIED PER 1,000 OF POPULATION AT EACH AGE PERIOD

Country	Year of census	15-20	20-25	25-30	30-35	35-40	40-50	50-
MALES								
Austria	1920	998	830		343		184	140
Bulgaria	1926	935	507	179	87	47	27	17
Egypt	1927	959	474		78		28	16
England and Wales (U.K.)	1921	996	822	446	231	163	131	102
France	1926	994	544		155		102	84
Germany	1925	999	892	454	191	106	72	64
India	1921	687	402	193	98	62	48	38
Latvia	1930	996	895	570	316	201	132	80
Switzerland	1920	999	920	597	337	223	158	133
Palestine	1931							
(All religions)		962	748	425	186	96	53	35
Moslems		951	718	402	184	93	45	25
Christians		984	850	560	285	176	151	146
Jews		987	770	436	152	72	35	14
FEMALES								
Austria	1920	987	701		305		190	163
Bulgaria	1926	877	323	81	36	20	13	7
Egypt	1927	627	85		19		14	10
England and Wales (U.K.)	1921	982	726	410	260	204	174	149
France	1926	937	387		162		114	105
Germany	1925	988	753	371	221	153	114	98
India	1921	187	51	25	19	15	14	12
Latvia	1930	970	744	455	306	226	164	115
Switzerland	1920	993	818	491	309	228	185	173
Palestine	1931							
(All religions)		730	301	118	59	45	42	40
Moslems		657	216	73	35	24	24	26
Christians		807	439	270	220	192	195	181
Jews		882	479	195	77	40	23	8

Here again it will be observed that at every age period marriage among males is, on the whole, more prevalent than in European countries, Bulgaria being a notable exception: and among females may be described as approaching universality.

The proportions of the sexes by conjugal condition are given in Subsidiary Table No. V: crude comparisons with other countries for persons of all ages being given in the following table:—

PROPORTION OF SEXES BY CONJUGAL CONDITION FOR PALESTINE AND OTHER COUNTRIES.
Number of females per 1,000 males.

Country	Year of census	Un-married	Married	Widowed	Divorced	All conditions (including unrecorded)
Bulgaria	1926 (31/XII)	895	1,009	2,599	1,300	997
Egypt	1927	785	1,045	8,234	1,815	1,008
France	1926	962	1,003	3,097	1,482	1,083
Greece	1928	860	1,016	4,127	1,431	1,017
Turkey (Europe)	1927	761	893	7,493	2,260	971
Turkey (Asia)	1927	776	1,079	11,020	4,073	1,089
Palestine (All religions)	1931	768	1,058	6,367	1,877	973
Moslems		746	1,083	6,233	1,867	968
Christians		809	1,003	9,176	2,023	991
Jews		835	993	5,752	1,848	971

Since there is a general deficiency of females in the population of Palestine, the comparative figures in this table are a striking witness to the prevalence of marriage among women in Palestine. Thus, while there are only 973 females for every 1,000 males of all ages and in all marital states, there are 1,058 married females, 6,367 widows, and 1,877 divorced females for every 1,000 married men, widowers and divorced males respectively.

The general proportions in the districts and sub-districts reveal no very remarkable variations from the proportions for the country as a whole. The general proportions in the towns, apart from Tel Aviv, show the existence of a tendency for both males and females to remain unmarried longer than in rural areas. This tendency corresponds with expectation, seeing that the young men and women who form part of the populations of towns wish to establish themselves economically before undertaking the responsibilities of marriage; whereas the economic background in rural life consists of the products of field raised by means of personal toil in which the whole family can and does share in order to make livelihood possible.

The proportions in the three principal communities.

(a) The Moslems.

153. Marriage among Moslem females is practically universal. Plural marriages are permissible among Moslems and it will be seen that there are 1,083 Moslem wives to every thousand Moslem husbands. It is probable that the number of husbands out of the country when their wives were enumerated is greater than the number of wives out of the country when their husbands were enumerated, so that the number of Moslem wives to one thousand Moslem husbands is probably about 1,080. Among these a certain number of unmarried mothers will have been included, as also a number of affianced girls who have not completed the full legal ceremony of Moslem marriage. Making allowances for these classes, the proportion seems to be high. In Egypt, including monogamous foreigners, the proportion is 1,045 married females to one thousand married males: and in India (1911) the proportion of married Moslem females to Moslem married males is only 1,011 to one thousand. On the other hand, Turkey in Asia showed in 1927 a proportion of 1,079 married females to one thousand married males, a proportion that is of the same order as that in Palestine today.

Of the unmarried Moslem males 90 per cent. are below the age of 25 years: and the similar proportion for females is nearly 97 per cent. Of the married Moslem males not quite 7 per cent. are below the age of 25 years while the similar

proportion for females is 20 per cent. The age, therefore, at which marriage takes place among Moslem is higher than is generally believed. The registration of marriages in Palestine is deplorably inefficient, and such records as are taken are not centralized in one office for the whole country. There is, therefore, no method by which the average age of brides and bridegrooms can be obtained directly, since there was no question at the census as to the duration of marriage. Nevertheless by an indirect method, the details of which are given in an appendix to this chapter, it is possible to obtain a fairly reliable idea as to the average age at marriage¹. The results show that the average age of a Moslem bride is about 20 years, while that of a bridegroom is about 26 years. It is clear that there is no serious problem caused by child-marriage among the Moslems. The distressing cases which come to notice from time to time are not characteristic of the social custom of the community as a whole, but are exceptions, most of which are deplored by the body of Moslem opinion, and could be eliminated by a more effective expression of that opinion. The law which governed the age at which marriage may take place in the Turkish Empire is the Ottoman Family Law of which a material extract is given in the footnote². It will be seen that, while the general intention of the law corresponds with social European opinion, there is, nevertheless, room for the wide exercise of discretion on the part of the *Qadis* (judges in the inferior Moslem religious courts) as to the grant of permission to marry in the case of young girls.

154. The statistics of divorce among Moslems show that from the age of 15 years upward there are 4 Moslem divorced males per thousand and 8 Moslem divorced females per thousand, these being also the proportions exhibited by the whole of the settled population. Since, in the ordinary course of things, a Moslem wife cannot divorce her husband, the statistics relating to males must be interpreted in the sense that they show the number of Moslems who have divorced their wives and had not remarried at the time of the census. The statistics for female divorce compare very favourably with those of Egypt, where the proportion (all religions) is 27 divorced females per thousand females aged 15 years and upward. No doubt these figures are inflated to some extent by the number of divorced in the non-Moslem foreign communities of Egypt, but the population of Egypt is predominantly Moslem so that the proportions of divorced among Moslems cannot differ greatly from those for the whole population of Egypt. Since a Moslem husband may divorce his wife for any cause without great formality or complicated legal process, it may be inferred that there is still in Palestine that classic Moslem tradition of kindly austerity that relegated women to the subordinate position but insisted that she was entitled to the protection of her father, if unmarried, and of her husband, if married. It is not possible to

¹ The method can be applied with rather less accuracy to the Christians but is not applicable to the Jews, because the underlying assumption is that the functions used are not disturbed by migration.—E.M.

² The Ottoman Family Law. Bk. 1 Marriage and Separation. Title I. Chap. I.
Engagement.

(1) A promise to marry or an engagement to be married does not constitute marriage.

The Ottoman Family Law. Bk. 1 Marriage and Separation. Title I. Chap. II.
Validity of Marriage.

(4) It is necessary for the validity of a marriage contract that the male party shall have completed 18 years of his age and the female 17 years.

(5) Where in the case of a male party who has not completed 18 years of his age, it is claimed that puberty has been attained and his appearance supports the claim, the Kadi may grant him a license to marry.

(6) Where in the case of a female party who has not completed 17 years of her age, it is claimed that puberty has been attained and her appearance supports the claim, the Kadi may, subject to the consent of her guardian, grant her a license to contract a marriage.

(7) No person shall contract a marriage for a young male who has not completed 17 years of his age, or for a young female who has not completed 9 years.

(8) Where a female who has not completed 17 years of her age applies to the Kadi for a marriage license, the Kadi shall inform her guardian of the application and may, if no objection has been raised or if raised but not allowed, grant her the license.

(9) No marriage, except in case of emergency, shall be contracted for an insane person of either sex. Even in the case of emergency the intervention of the marriage guardian (*Wali*) is an essential condition to the validity of the contract.

(12) In marriage among Christians where the male party has not completed his 23rd year of age and where the female party has not completed her 22nd year, the consent of the "*Wali*" is an essential condition to the validity of the contract of marriage.

PROPORTION OF UNMARRIED MALES AND FEMALES
PER 1,000 AT EACH AGE

MOSLEMS

MALES ———
FEMALES - - - -
E & W 1921
MALES - + - + -
FEMALES o - o -

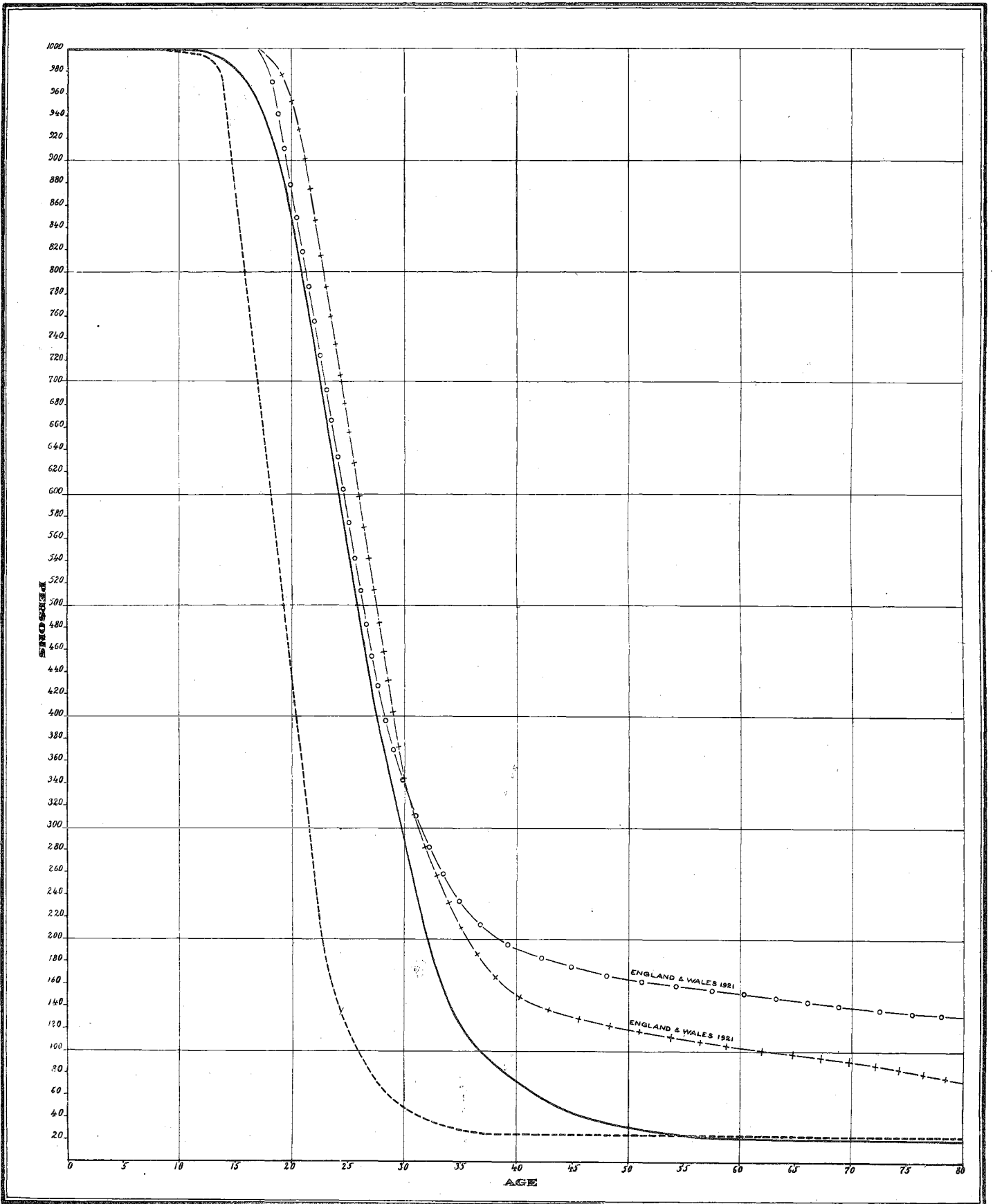


DIAGRAM No. 24

establish from the statistics the principal causes of Moslem divorce, but for every 46 divorced women, 6 are aged between 15 and 25 years, 19 between 25 and 45 years, 16 between 45 and 65 years, and 5 are aged 65 years and over. The distribution suggests that a failure to produce male heirs after a reasonable period of marriage may be the most fruitful cause of divorce, since the curve rises rather sharply to its maximum between the ages of 25 and 45 years.

155. As regards widowhood, the proportion for males is somewhat less than the proportions in the other countries shown in the tables in the earlier part of this chapter, while that for females is greater except in the case of Egypt. The proportions in the case of males are probably maintained at a low level by remarriage. In the case of females, the age distribution of widows shows that 43 per cent. of the women aged 45–65 years are widows, while the proportion of widows in the whole population is a maximum in the same age period.

No comparative pre-war statistics are available but, while the effect of the war in causing a special mortality among males is now not measurable, it is probable that the high proportion of widows at these ages is a reflexion of war-mortality among males, and that, if there had been no war, the proportions would have been considerably less.

156. It has already been explained that comparison between the results of the census 1931 and those of the census 1922 have only a limited validity for the total population. Nevertheless examination of the comparative statistics in Subsidiary Table No. II shows that in the predominantly Moslem sub-districts the real change in the intercensal years is an increase in the proportion of unmarried persons and a decline in the proportions for marriage, divorce and widowhood. This feature is in agreement with the general conclusion reached in Chapter V (Age) wherein it was shown that there has been a large increase in the child-population among Moslems. The proportions unmarried at each age are given for males and females in Palestine 1931 and England and Wales 1921 in the following table:—

NUMBER OF UNMARRIED PERSONS PER 1,000 PERSONS IN EACH QUINARY AGE GROUP.

Age	MALES		FEMALES	
	Moslems 1931	England and Wales 1921	Moslems 1931	England and Wales 1921
0 - 5	1,000	..	1,000	..
5 - 10	1,000	..	1,000	..
10 - 15	998	..	993	..
15 - 20	951	996	657	982
20 - 25	718	822	216	726
25 - 30	402	341	73	337
30 - 35	184		35	
35 - 40	93	150	26	192
40 - 45	54		24	
45 - 50	34	120	24	164
50 - 55	31		24	
55 - 60	22	104	27	153
60 - 65	24		25	
65 - 70	21	91	26	139
70 - 75	21		22	
75 - 85	21	73	20	132
85 -		70		130

The figures are illustrated in Diagram No. 24. The statistics are of interest in two perspectives: first, as showing the far greater prevalence of marriage in Palestine, and secondly, the striking contrasts resulting from, first, the disparate

sex-compositions of the two populations compared, that of Palestine having a deficiency of females, and that of England and Wales having a deficiency of males¹, and, secondly, from the differences in chances of marriage for females in polygamous and monogamous institutions.

157. The statistics of marital condition for the Jews reveal a strong disposition (b) **The Jews.** towards the married estate, and, since the sexes are well-balanced both by numbers and by age, the community is, in a biological sense, favourably placed in comparison with the populations of both eastern and western countries of Europe. Taking males and females of all ages, 41 per cent. of each sex are married, or of persons aged 15 years and upward 61 per cent. of each sex are married, as against 65 and 69 per cent. for Moslem males and females and 58 and 52 per cent. for males and females in England and Wales 1921, where the proportions of the married showed a sudden increase as an effect of the conditions of war. The figures for the proportions of unmarried in each material age-period show that there are even smaller proportions of both sexes unmarried in the later years than among Moslems. Of the married males 6 per cent. are below the age of 25 years; and of the married females 16 per cent. are below the age of 25 years, a small proportion of whom are below the age of 15 years.

158. There is no means to hand for calculating, as was done for the Moslems, the average age of bridegrooms and brides at marriage, because the functions used in the calculation are employed on the assumption that migration has no appreciable effect on marriage proportions in the individual years. This assumption is manifestly not valid for the Jewish community. The age distribution by marital condition shows, however, that the proportion of marriages becomes significant for males between the ages of 20 and 25 years, and for females between 15 and 20 years and that these proportions are heavily increased in the succeeding quinary age groups. It follows that the average age at marriage of both males and females is neither too low nor too high. The child marriages that take place are to be found in the oriental communities of Jews and are reprobated by Jews coming from western countries. There is nothing in Jewish religious law in Palestine forbidding plural marriages, although the Ashkenazic communities of Europe are now dominated by European conceptions in these matters. The number of such marriages is very small, the Jews of the oriental communities having the tradition of a succession of wives rather than that of a plurality of wives at the same time.

159. Divorce is fairly easy to obtain² and the divorce rate as revealed by the statistics is high according to English standards. It must be remembered, however, that divorce among Jews is given for a number of causes not recognized as grounds for the dissolution of marriage in the civil law of England, so that comparison of the statistics with those of European countries is only strictly possible where the grounds for divorce are identical.

160. The proportion of widowers is small and this may be explained by the immigration of men and women in the age 20-30 years. On the other hand the proportion of widows among females aged 15 years upward is 140 per thousand. This is a high figure comparable with the highest in Europe, and it is probably a reflexion of the effect of war in mortality among males not only in Palestine, where the effects are probably small, but in European countries from which Jewish women have emigrated to settle in Palestine.

¹ The curves for Palestine have been utilized in calculating the average age at marriage of Moslem brides and bridegrooms. See paragraph 153 above and the appendix to this chapter.—E.M.

² As for the other communities, the divorce law is part of the law of personal status and is religious law administered by religious courts. These courts have no jurisdiction over foreign nationals in matters of divorce; but that is sometimes not understood, and it is possible that some of the divorces granted to Jews would not be regarded as valid in States of which they remain nationals.—E.M.

NUMBER FEMALES WIDOWED IN EACH QUINARY GROUP
PER 1,000 FEMALES

MOSLEMS — — — — —
 JEWS — + — + — +
 CHRISTIANS — — — — —
 E & W 1921 ○ — ○ — ○

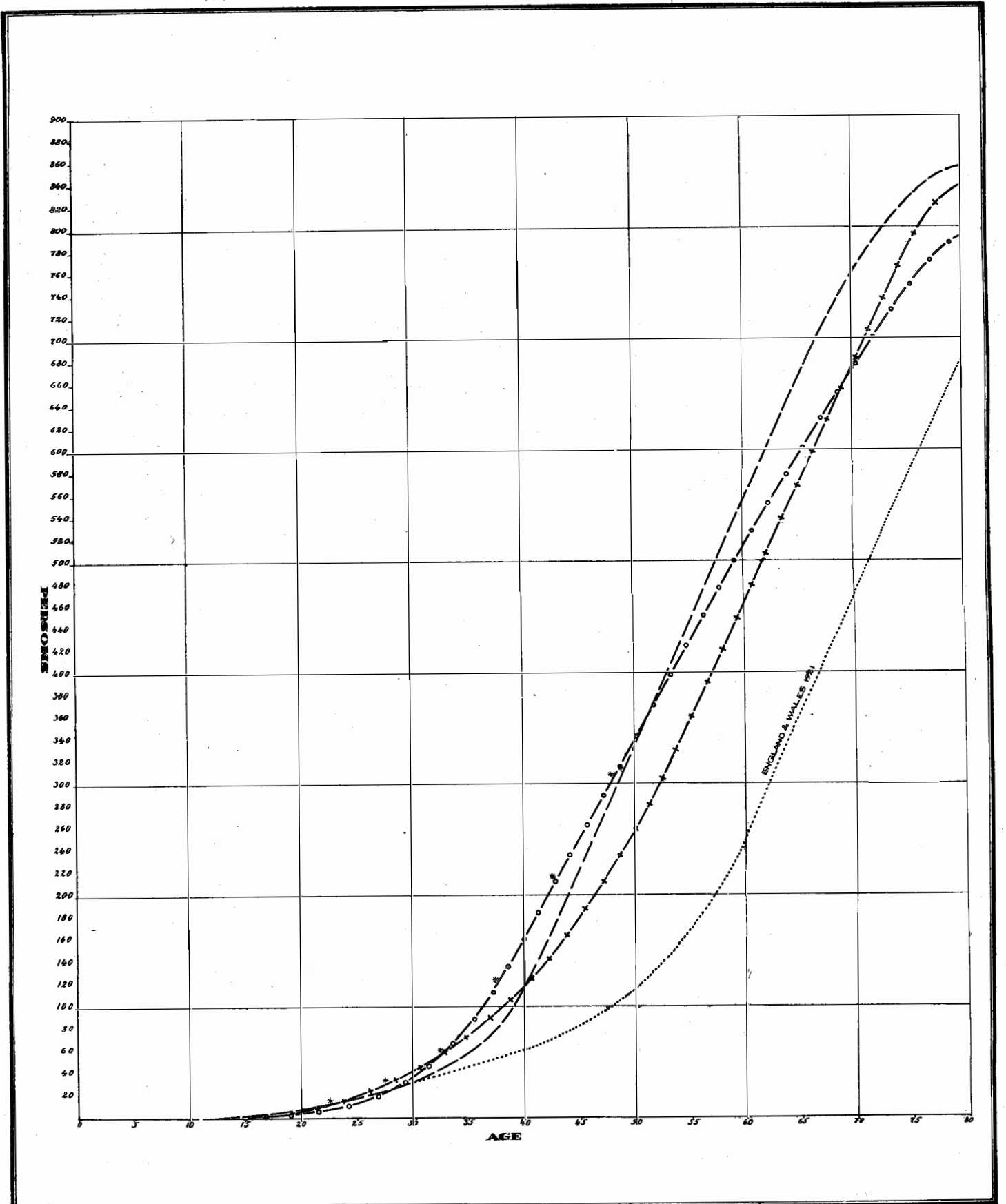


DIAGRAM No. 25

(c) The
Christians.

161. The structure of the Christian community differs considerably from that of either the other two communities in that it suffers distortions, in the biological and sociological senses, due to an effective immigration of unmarried young men in His Majesty's Forces for whom there is no natural counterpart of sex in the country, and the presence of a not inconsiderable special population, native-born and foreign-born men and women, vowed to the conventual life. Hence it is that, in comparison with the other communities, the proportion of married persons is small, being only 50 per cent. of the males aged 15 years and upward and 48 per cent. of the females of the same ages. At the ages of 50 years and upward, while the Moslems show 25 males and 24 females per thousand unmarried, and the Jews show 14 males and 8 females per thousand unmarried, the similar proportions for the Christians are 146 and 181 respectively. From the age of 20 years the proportion of unmarried males is higher at every age than in either of the other communities, and a similar observation is true for females from the age of 25 years. Of the married males just over 6 per cent. are under the age of 25 years and of the married females 21 per cent. are below the same age, but the proportion of early marriages between the ages of 15 years and 20 years is considerably smaller than among the Moslems and approximates to the proportion among the Jews who show the smallest proportion of married persons at these ages. The average age at marriage cannot be determined with any accuracy since migration tends to disturb the natural proportions of the married at individual ages, so that the method applied in the case of the Moslems has no validity applied to the Christians.

162. The proportion of divorced persons is small compared with the proportions shown in the other communities. Christians of the Latin rite cannot obtain dissolution of marriage save in most special circumstances, and, while the members of the eastern churches have not the same restrictions, Christianity has always insisted on the general indissolubility of the marriage relation, so that the absence of a civil law of divorce, combined with the reprobation of divorce by most Christians, maintains the proportion of divorced persons at a low level. When divorce is granted, it is sometimes the cause of minor dissension between two of the Christian communities where these communities have the right to administer their own religious law, and one of the parties to the divorce, usually the husband, has left his own community for the purpose of marrying into the other community, ignoring or forgetful of his obligation towards his first wife under the religious law of the community which he has left.

163. The proportion of widowers is comparatively small for the reason that the population contains a number of young unmarried British soldiers and police constables. On the other hand, the proportion of widows is distinctly high, particularly in the ages between 35 and 45 years. This feature is probably a reflexion of war mortality among males, but the large difference between the proportions for the Moslem and Christians at these ages suggests that there has been an immigration of foreign-born Christian widows, whose widowhood is most probably the effect of war mortality among males in other countries.

Remarriage of
widows.

164. There are no statistics which enable a direct calculation to be made of the number of re-marriages of widows, a question which is of interest in the Moslem community having regard to the marked deficiency of females among Moslems: but the following indirect method will give some idea of the minimum number of such re-marriages among Moslems at each age.

The table given below and Diagram No. 25 illustrate the number widowed

per thousand females in the three communities in Palestine 1931 and in England and Wales 1921 :—

NUMBER WIDOWED PER 1,000 FEMALES IN EACH AGE PERIOD.

Age	Moslems 1931	Jews 1931	Christians 1931	England and Wales* 1921
0 - ...	...	...	...	...
5 - ...	...	...	...	...
10 - ...	...	...	...	...
15 - ...	3	1	3	...
20 - ...	13	10	8	4
25 - ...	22	30	22	...
30 - ...	41	55	56	32
35 - ...	74	92	119	...
40 - ...	165	163	208	62
45 - ...	254	212	301	...
50 - ...	424	322	412	115
55 - ...	502	342	445	...
60 - ...	637	532	559	247
65 - ...	700	580	612	...
70 - ...	779	721	698	468
75 - ...	853 {	840 {	792 {	681
85 - ...				802

* The curve for England and Wales is included in order to show the sociological differences, evidenced by proportions of widowhood, between a country, Palestine, with a tradition of fairly early marriage and a country, England and Wales, with the contrary tradition, which was, however, disturbed to some extent by war conditions.—E.M.

The following points are to be noted :—

- (i) All distributions are the resultants of widowhood *i.e.* of mortality among husbands and of remarriage ;
- (ii) Where the curves are farther removed from the horizontal axis the number of remarriages is smaller.
- (iii) The curve of stars is parallel to a constructed curve which is a combination of the elements of each of the curves for Palestine most remote from the horizontal axis, and is determined for the Moslem distribution, so that it represents a hypothetical curve of Moslem female widowhood with an assumed minimum of remarriages of widows.

Granted these assumptions¹, the differences between the ordinates of the actual Moslem curve and the hypothetical Moslem curve will give some idea of the minimum numbers per thousand Moslem females at each age of women who have been married, widowed and are now living in wedlock with a second husband. The method, of course, is very rough but the following results are of interest as furnishing an estimate of the minimum extent to which Moslem widows do remarry :—

NUMBER PER 1,000 MOSLEM FEMALES IN EACH AGE PERIOD WHO ARE

Age	Living as widows	Living as wives of second husbands (minimum)
10 - 15	...	...
15 - 20	3	...
20 - 25	13	7
25 - 30	22	9
30 - 35	41	17
35 - 40	74	44
40 - 45	165	43
45 - 50	254	23
50 - 55	424	1

¹ A further assumption is that the mortality of males aged 40 years and upward is not greatly different from community to community.—E.M.

APPENDIX.

*A method for determining age at marriage in communities undisturbed by migration when no statistics of marriage are available outside the census statistics of the ages of husbands and wives*¹.

1. Let u_x be the number of females unmarried, married, divorced and widowed at the age of x years, *i.e.* between x and $(x + 1)$ years of age; and let p_x be the proportion between the ages of x and $(x + 1)$ years returned as married, divorced, and widowed.

Then $p_x u_x$ is the number of females between x and $(x + 1)$ years of age who have been married.

2. Assume that the mortality rates are the same for married as for unmarried females, and that the age distribution of females remains unchanged for a year. The first assumption is not completely valid in the ages of early maturity when married females are exposed to the risks attending first childbirths: but the numbers of married females who are married and survive a year are affected only by a very small amount as a consequence of this cause and this is to some extent compensated by the special mortality among unmarried women in the later ages of life when married women have overcome the risks of reproduction, and unmarried women are exposed to risks of a special sort associated with their mode of life. The error involved in the assumption is therefore of a smaller order than the order of smallness of the error in applying for any one year the difference between the mortality rates for married and unmarried to the number in each age, *i.e.* the error, integrated over the whole series of ages is negligible in the degree of accuracy required. The second assumption is an assumption of continuity which is not far from the truth for all but infant populations, provided that migration is not an appreciable factor in the problem. It involves the use of the graduated age distribution determined in Chapter V (Age).

3. It now follows that of the females aged between x and $(x + 1)$ years

$$\frac{u_{x+1}}{u_x} \times p_x u_x \text{ or } u_{x+1} p_x$$

survive a year and enter the age $(x + 1)$ to $(x + 2)$ years. But, by hypothesis, the number of females aged between $(x + 1)$ and $(x + 2)$ years who have been married is $u_{x+1} p_{x+1}$. The difference between these two numbers, $u_{x+1} p_{x+1}$ and $u_{x+1} p_x$, must be the number of marriages which took place during the year among women who were of age x years at the beginning and who are now among the married women aged, between $(x + 1)$ and $(x + 2)$ years. Hence the average age at which these marriages took place must have been almost exactly $(x + 1)$ years.

4. Complete account, therefore, of all the marriages taking place in the year is given by the series

$$S u_{x+1} (p_{x+1} - p_x)$$

Now the average age of the brides in the marriages $u_{x+1} (p_{x+1} - p_x)$ is $(x + 1)$ years; and the average age of the brides in the marriages $u_{x+2} (p_{x+2} - p_{x+1})$ is $(x + 2)$ years; and so on. Thus the average age of brides at which the marriages took place is given by

$$\frac{S u_x (p_x - p_{x-1}) x}{S u_x (p_x - p_{x-1})}$$

¹ The method is that adopted by Mr. W. H. Thomson, I.C.S., F.R.S.S., in the Report of the Census of Bengal, 1921.—E.M.

The following tables give the computations for Moslem brides and bridegrooms :—

AGE OF MOSLEM BRIDES.

Deviations from arbitrary origin	Curtate age	Number of females living (Graduated)	Married, divorced and widowed per 1,000 (Graduated from curve)		Proportionate number of marriages (i.e. number of marriages X 1,000) when bride's age is between $(x - \frac{1}{2})$ years and $(x + \frac{1}{2})$ years i.e. at average age of x years.	Product of proportionate number of marriages and deviations from arbitrary origin.
X	x	u_x	p_x	$p_x - p_{x-1}$	$u_x (p_x - p_{x-1})$	$u_x (p_x - p_{x-1}) X$
	1	2	3	4	5	6
	0—	13,417	...	...		+
	1—	13,146	...	...
	2—	12,827	...	...
	3—	12,415	...	...
	4—	11,914	...	...
	5—	11,295	...	...
	6—	10,509	...	...
—12	7—	9,566	...	...
—11	8—	8,486	...	...
—10	9—	7,421	1	1	7,421	74,210
—9	10—	6,548	3	2	13,096	117,864
—8	11—	5,576	5	2	11,152	89,216
—7	12—	4,722	7	2	9,444	66,108
—6	13—	4,130	16	9	37,170	223,020
—5	14—	3,792	76	60	227,520	1,137,600
—4	15—	3,761	164	88	330,968	1,323,872
—3	16—	3,932	252	88	346,016	1,038,048
—2	17—	4,318	340	88	379,984	759,968
—1	18—	4,794	429	89	426,666	426,666
0	19—	5,325	517	88	468,600	
1	20—	5,782	605	88	508,816	508,816
2	21—	6,162	690	85	523,770	1,047,540
3	22—	6,407	775	85	544,595	1,633,785
4	23—	6,573	834	59	387,827	1,551,308
5	24—	6,624	866	32	211,968	1,059,840
6	25—	6,636	889	23	152,628	915,768
7	26—	6,600	910	21	138,600	970,200
8	27—	6,519	926	16	104,304	834,432
9	28—	6,326	937	11	69,586	626,274
10	29—	6,060	947	10	60,600	606,000
11	30—	5,716	953	6	34,296	377,256
12	31—	5,384	958	5	26,920	323,040
13	32—	5,053	962	4	20,212	262,756
14	33—	4,856	966	4	19,424	271,936
15	34—	4,689	969	3	14,067	211,005
16	35—	4,531	971	2	9,062	144,992
17	36—	4,381	972	1	4,381	74,477
18	37—	4,234	973	1	4,234	76,212
19	38—	4,083	973	—		
20	39—	3,932	973			
21	40—	3,780	974	Following terms are 0 or 1 and are negligible	5,093,327	+ 11,495,637
22	41—	3,630				
23	42—	3,479				
24	43—	3,329	Following terms have very small or zero differences which are negligible			+ 6,239,065
25	44—	3,177				
26	45—	3,028				
27	46—	2,878				
	47—	2,733				
	48—	2,580				
	49—	2,438				
	50—	2,306				

Mean — 19.0 years = $\frac{6,239,065}{5,093,327}$ = 1.22 class intervals, each class interval being an interval of one year
 ∴ Mean age of brides at marriage = 20.2 years.

AVERAGE AGE OF MOSLEM BRIDEGROOMS

Deviations from arbitrary origin	Curtate age	Number of males living (Graduated)	Married, divorced and widowed per 1,000 (Graduated)		Proportionate number of marriages (i.e. number of marriages $\times 1,000$) when bridegroom's age is between $(x - \frac{1}{2})$ and $(x + \frac{1}{2})$ years, i.e. at average age of x years.	Product of proportionate number of marriages and deviations from arbitrary origin.
X	x	u_x	p_x	$p_x - p_{x-1}$	$u_x (p_x - p_{x-1})$	$u_x (p_x - p_{x-1}) X$
	1	2	3	4	5	6
-20	10—	8,135	...	...
-19	11—	7,135	1	1	7,135	135,565
-18	12—	6,201	2	1	6,201	111,618
-17	13—	5,487	6	4	21,948	373,116
-16	14—	4,991	13	7	34,937	558,992
-15	15—	4,773	23	10	47,730	715,950
-14	16—	4,747	37	14	66,458	930,412
-13	17—	4,927	56	19	93,613	1,216,969
-12	18—	5,194	86	30	155,820	1,869,840
-11	19—	5,529	125	39	215,631	2,371,941
-10	20—	5,825	176	51	297,075	2,970,750
-9	21—	6,084	231	55	334,620	3,011,580
-8	22—	6,252	286	55	343,860	2,750,880
-7	23—	6,367	348	60	382,020	2,674,140
-6	24—	6,385	408	60	383,100	2,298,600
-5	25—	6,354	471	63	400,302	2,001,510
-4	26—	6,256	534	63	394,128	1,576,512
-3	27—	6,098	596	62	378,076	1,134,228
-2	28—	5,847	641	45	263,115	526,230
-1	29—	5,551	685	44	244,244	244,244
0	30—	5,210	729	44	229,240	
1	31—	4,927	773	44	216,788	216,788
2	32—	4,708	812	39	183,612	367,224
3	33—	4,571	842	30	137,130	411,390
4	34—	4,437	865	23	102,051	408,204
5	35—	4,305	882	17	73,185	365,925
6	36—	4,175	895	13	54,275	325,650
7	37—	4,037	906	11	44,407	310,849
8	38—	3,897	915	9	35,073	280,584
9	39—	3,758	923	8	30,064	270,576
10	40—	3,614	930	7	25,298	252,980
11	41—	3,464	936	6	20,784	228,624
12	42—	3,318	942	6	19,908	238,896
13	43—	3,181	948	6	19,086	248,118
14	44—	3,048	953	5	15,240	213,360
15	45—	2,925	957	4	11,700	175,500
16	46—	2,806	960	3	8,418	134,688
17	47—	2,687	963	3	8,061	137,037
18	48—	2,568	965	2	5,136	92,448
19	49—	2,449	967	2	4,898	93,062
20	50—	2,328	969	2	4,656	93,120
21	51—	2,215	971	2	4,430	93,030
22	52—	2,102	972	1	2,102	46,244
23	53—	1,999	973	1	1,999	45,977
24	54—	1,904	974	1	1,904	45,696
25	55—	1,807	975	1	1,807	45,175
26	56—	1,719	976	1	1,719	44,694
27	57—	1,636	977	1	1,636	44,172
28	58—	1,571	977			
29	59—	1,499	977			
					5,334,620	5,230,011
	60—	1,428	977			— 22,243,066

∴ Mean — 30 years = $\frac{-22,243,066}{5,334,620}$ class intervals, each class interval being an interval of one year.
 = — 4.17 years
 ∴ Mean = 30 — 4.17 = 25.83
 Mean age of bride-grooms at marriage = 25.8 years

5. Those who are not familiar with the device of an arbitrary origin (or mean), which saves labour of computation and arithmetical operations on very large numbers, may construct column (6) by multiplying together the numbers in columns (1) and (5). The sum of the numbers so obtained divided by the sum of the numbers in column (5) will give the mean age directly. The figures in column (2) are obtained from the curves given in Diagram No. 24 while the figures given in column (3) are taken from Subsidiary Table No. I (Graduated age distribution) appended to Chapter V (Age).

6. The numbers in column (5) have a further utility. If v_x be the entry in column (5) against the age of x years then out of v_x marriages which took place in the

$\overline{1000}$

year, the number in which the bride or bridegroom is aged over 10 years and less than 16 years is approximately

$$\frac{1}{1,000} \left(\frac{1}{2} v_{10} + v_{11} + v_{12} + v_{13} + v_{14} + \frac{1}{2} v_{15} \right);$$

the number in which the bride or bridegroom is over 15 years and less than 21 years is approximately

$$\frac{1}{1,000} \left(\frac{1}{2} v_{15} + v_{16} + v_{17} + v_{18} + v_{19} + \frac{1}{2} v_{20} \right)$$

and so on. Thus during the year ending with the day of the census (18th November, 1931) 457 Moslem girls and 148 Moslem boys appear to have been married between the ages of 10 and 16 years.

On the same principles the number of Moslem brides who had passed the age of 10 years but had not reached the age of 15 years was 178 and the number of bridegrooms at the same ages was 90. The absolute figures returned for married females and males aged between 10 and 15 years are 168 and 47 respectively. Making allowance for age errors the agreement between the absolute returns and the calculated numbers is remarkably close in the case of the females. The difference in the case of the males is caused by the error in the absolute figures due to the habit in all eastern countries of over-stating the ages of youths in early adolescence, this error having been corrected in the graduated age figures used in the calculation.

SUBSIDIARY TABLE No. I.

Distribution by conjugal condition, sex and religion per 1,000 of population of each age group.

RELIGION	AGE	MALES				FEMALES			
		Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
1	2	3	4	5	6	7	8	9	10
ALL RELIGIONS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	995	5	...	...
	15 - 20 ...	962	37	...	1	730	265	2	3
	20 - 25 ...	748	246	2	4	310	681	6	12
	25 - 30 ...	425	561	5	9	119	851	6	24
	30 - 35 ...	185	794	6	15	59	888	8	45
	35 - 40 ...	96	879	5	20	45	866	2	87
	40 - 45 ...	61	907	5	27	42	780	9	169
	45 - 55 ...	41	919	5	35	41	617	12	330
	55 - 65 ...	33	897	5	65	42	400	11	547
	65 - 75 ...	33	839	5	123	40	237	9	714
	75 & over ...	31	740	5	224	33	118	6	843
15 & upwards	340	628	4	28	162	652	8	178	
MOSLEMS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	993	7	...	...
	15 - 20 ...	951	48	...	1	657	337	3	3
	20 - 25 ...	718	274	3	5	216	766	5	13
	25 - 30 ...	402	581	5	12	73	900	5	22
	30 - 35 ...	184	791	6	19	35	918	6	41
	35 - 40 ...	93	878	5	24	26	893	7	74
	40 - 45 ...	54	909	5	32	24	802	9	165
	45 - 55 ...	33	926	4	37	24	622	13	341
	55 - 65 ...	23	912	4	61	23	376	14	587
	65 - 75 ...	21	865	5	109	21	219	11	749
	75 & over ...	21	765	5	209	21	120	7	852
15 & upwards	315	650	4	31	117	689	8	186	
JEWS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	999	1	...	...
	15 - 20 ...	987	13	...	...	882	115	2	1
	20 - 25 ...	770	226	3	1	479	503	8	10
	25 - 30 ...	436	556	4	4	195	764	11	30
	30 - 35 ...	152	835	7	6	77	852	16	55
	35 - 40 ...	72	912	7	9	41	851	16	92
	40 - 45 ...	40	938	8	14	25	798	15	162
	45 - 55 ...	22	939	9	30	15	707	11	267
	55 - 65 ...	12	896	8	84	8	545	7	440
	65 - 75 ...	12	807	12	169	6	347	3	644
	75 & over ...	22	634	4	340	12	148	...	840
15 & upwards	357	614	5	24	239	611	10	140	
CHRISTIANS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	996	4	...	...
	15 - 20 ...	984	16	...	...	807	190	...	3
	20 - 25 ...	850	147	1	2	439	550	3	8
	25 - 30 ...	560	431	2	7	271	704	3	22
	30 - 35 ...	286	704	4	6	220	720	4	56
	35 - 40 ...	176	813	1	10	192	685	4	119
	40 - 45 ...	161	822	2	15	202	585	5	208
	45 - 55 ...	145	824	2	29	188	455	3	354
	55 - 65 ...	141	800	1	58	192	300	3	505
	65 - 75 ...	147	720	1	132	180	165	2	653
	75 & over ...	139	647	2	212	133	74	1	792
15 & upwards	477	500	1	22	317	484	3	196	

SUBSIDIARY TABLE No. II.

Comparison of the distribution by conjugal condition of 1,000 of each sex at all ages in all religions as per censuses 1922 and 1931.

Districts as constituted at date of census 1931.

DISTRICT, SUB-DISTRICT & CERTAIN TOWNS	MALES						FEMALES					
	Unmarried		Married		Divorced and Widowed		Unmarried		Married		Divorced and Widowed	
	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922	1931	1922
1	2	3	4	5	6	7	8	9	10	11	12	13
PALESTINE	608	593	373	384	(D) 2 (W) 17	23	479	457	405	422	(D) 5 (W) 111	121
SOUTHERN DISTRICT :												
Gaza Sub-district ...	592	572	391	409	(D) 2 (W) 15	19	462	429	430	458	(D) 4 (W) 104	113
Beersheba Sub-district	633	567	353	414	(D) 3 (W) 11	19	495	425	425	467	(D) 1 (W) 79	108
Jaffa Sub-district ...	586	605	391	369	(D) 4 (W) 19	26	477	474	415	414	(D) 6 (W) 102	112
Ramle Sub-district ...	607	586	375	393	(D) 2 (W) 16	21	463	454	436	478	(D) 4 (W) 97	68
JERUSALEM DISTRICT :												
Hebron Sub-district ...	604	561	381	420	(D) 1 (W) 14	19	460	421	435	476	(D) 4 (W) 101	103
Bethlehem Sub-district	627	590	356	384	(D) 1 (W) 16	26	514	457	352	434	(D) 2 (W) 132	109
Jerusalem Sub-district	621	608	359	369	(D) 3 (W) 17	23	501	493	379	383	(D) 5 (W) 115	124
Jericho Sub-district ...	601	591	385	383	(D) 1 (W) 13	26	459	457	450	434	(D) 2 (W) 89	109
Ramallah Sub-district..	606	562	375	405	(D) 2 (W) 17	33	454	407	421	460	(D) 4 (W) 121	133
NORTHERN DISTRICT :												
Tulkarm Sub-district...	623	622	358	359	(D) 2 (W) 17	19	487	470	384	382	(D) 4 (W) 125	148
Nablus Sub-district ...	621	597	358	382	(D) 2 (W) 19	21	467	452	402	416	(D) 5 (W) 126	132
Jenin Sub-district ...	616	590	366	385	(D) 1 (W) 17	25	482	444	387	400	(D) 3 (W) 128	156
Nazareth Sub-district	632	615	352	368	(D) 2 (W) 14	17	504	489	377	377	(D) 4 (W) 115	134
Beisan Sub-district ...	605	630	363	351	(D) 4 (W) 28	19	476	451	404	413	(D) 5 (W) 115	136
Tiberias Sub-district...	606	595	373	376	(D) 3 (W) 18	29	483	473	400	398	(D) 7 (W) 110	129
Haifa Sub-district ...	612	627	371	354	(D) 2 (W) 15	19	496	501	405	383	(D) 4 (W) 95	116
Acre Sub-district ...	601	586	371	381	(D) 5 (W) 23	33	469	450	394	400	(D) 10 (W) 127	150
Safad Sub-district ...	610	619	371	361	(D) 3 (W) 16	20	486	504	395	362	(D) 6 (W) 113	134
TOTAL TOWNS	612	606	368	373	(D) 3 (W) 17	21	493	486	386	393	(D) 6 (W) 115	121
CERTAIN TOWNS :												
Jerusalem	628	632	350	345	(D) 4 (W) 18	23	516	522	358	344	(D) 5 (W) 121	134
Jaffa and Tel Aviv ...	583	606	393	365	(D) 4 (W) 20	29	479	482	403	408	(D) 7 (W) 111	110
Jaffa	626	...	350	...	(D) 5 (W) 19	...	485	...	402	...	(D) 5 (W) 108	...
Tel Aviv	528	...	446	...	(D) 3 (W) 23	...	473	...	406	...	(D) 8 (W) 113	...
Haifa	612	632	371	353	(D) 3 (W) 14	15	492	514	409	374	(D) 5 (W) 94	112
Nablus	647	619	333	371	(D) 3 (W) 17	10	511	499	361	396	(D) 6 (W) 122	105
Hebron	599	532	395	463	(D) 1 (W) 5	5	458	417	430	498	(D) 5 (W) 107	85

SUBSIDIARY TABLE No. III (a).

Distribution by conjugal condition of 1,000 of each sex in main age periods in districts.

DISTRICT	AGE	MALES				FEMALES			
		Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
1	2	3	4	5	6	7	8	9	10
PALESTINE	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	995	5	...	...
	15 - 20 ...	962	37	...	1	730	265	2	3
	20 - 25 ...	748	246	2	4	301	681	6	12
	25 - 30 ...	425	561	5	9	119	851	6	24
	30 - 35 ...	185	794	6	15	59	888	8	45
	35 - 40 ...	96	879	5	20	45	866	2	87
	40 - 45 ...	61	907	5	27	42	780	9	169
	45 - 55 ...	41	919	5	35	41	617	12	330
	55 - 65 ...	33	897	5	65	42	400	11	547
	65 - 75 ...	33	839	5	123	40	237	9	714
	75 - ...	31	740	5	224	33	118	6	843
15 & over ...	340	628	4	28	162	652	8	178	
SOUTHERN DISTRICT	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	998	2	...	...	994	6	...	...
	15 - 20 ...	962	36	1	1	706	289	2	3
	20 - 25 ...	749	245	2	4	292	689	7	12
	25 - 30 ...	417	570	6	7	115	849	7	29
	30 - 35 ...	175	808	5	12	49	893	9	49
	35 - 40 ...	93	886	5	16	34	882	8	76
	40 - 45 ...	57	912	6	25	26	820	8	146
	45 - 55 ...	38	924	5	33	23	679	11	287
	55 - 65 ...	27	899	5	69	23	462	10	505
	65 - 75 ...	22	851	5	122	21	280	8	691
	75 - ...	24	752	7	217	16	131	5	848
15 & over ...	327	640	4	29	149	681	7	163	
JERUSALEM DISTRICT	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	998	2	...	...	993	7	...	...
	15 - 20 ...	959	41	...	...	718	278	2	2
	20 - 25 ...	730	265	2	3	293	693	5	9
	25 - 30 ...	425	562	4	9	129	843	6	22
	30 - 35 ...	196	786	7	11	74	878	8	40
	35 - 40 ...	105	873	4	18	57	854	8	81
	40 - 45 ...	71	900	6	23	60	770	9	161
	45 - 55 ...	53	913	5	29	64	618	11	307
	55 - 65 ...	46	896	4	54	67	405	8	520
	65 - 75 ...	47	835	6	112	59	249	7	685
	75 - ...	40	749	3	208	49	131	5	815
15 & over ...	340	629	4	27	173	639	7	181	
NORTHERN DISTRICT	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	996	4	...	...
	15 - 20 ...	963	36	...	1	756	238	3	3
	20 - 25 ...	756	237	3	4	313	669	5	13
	25 - 30 ...	431	553	5	11	115	857	6	22
	30 - 35 ...	188	788	6	18	58	890	7	45
	35 - 40 ...	94	876	6	24	45	860	9	86
	40 - 45 ...	57	907	4	32	40	758	11	191
	45 - 55 ...	38	918	5	39	40	570	13	377
	55 - 65 ...	29	896	4	71	38	348	14	600
	65 - 75 ...	31	831	5	133	39	197	11	753
	75 - ...	29	722	5	244	33	97	8	862
15 & over ...	349	617	4	30	166	638	8	188	

SUBSIDIARY TABLE No. III (b).

Distribution by conjugal condition, sex and religion per 1,000 of population in each age period.

JERUSALEM TOWN.

RELIGION	AGE	MALES				FEMALES			
		Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
1	2	3	4	5	6	7	8	9	10
ALL RELIGIONS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	1,000	...	...	...	996	4	...	...
	15 - 20 ...	980	20	...	...	798	196	3	3
	20 - 25 ...	763	233	2	2	389	591	8	12
	25 - 30 ...	451	537	3	9	204	762	10	24
	30 - 35 ...	213	767	10	10	122	816	13	49
	35 - 40 ...	136	842	6	16	94	769	13	124
	40 - 45 ...	110	857	10	23	94	665	10	231
	45 - 55 ...	86	866	9	39	89	535	8	368
	55 - 65 ...	83	828	9	80	102	376	6	516
	65 - 75 ...	81	744	11	164	91	228	5	676
75 - ...	99	623	5	273	96	91	4	809	
15 & over ...	411	554	6	29	255	551	8	196	
MOSLEMS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	999	1	...	...	984	15	1	...
	15 - 20 ...	965	33	...	2	574	413	8	5
	20 - 25 ...	721	271	3	5	190	785	7	18
	25 - 30 ...	427	554	3	16	122	835	8	35
	30 - 35 ...	275	694	12	19	73	881	3	43
	35 - 40 ...	165	813	1	21	54	778	15	153
	40 - 45 ...	121	839	9	31	62	649	15	274
	45 - 55 ...	78	862	7	53	68	470	7	455
	55 - 65 ...	55	877	3	65	65	273	8	654
	65 - 75 ...	79	775	9	137	66	137	5	792
75 - ...	72	667	18	243	99	63	27	811	
15 & over ...	416	551	5	28	165	628	9	198	
JEWS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	1,000	...	...	...	999	1	...	...
	15 - 20 ...	980	20	...	...	842	154	2	2
	20 - 25 ...	682	314	3	1	407	577	9	7
	25 - 30 ...	379	608	5	8	172	796	12	20
	30 - 35 ...	134	848	11	7	73	863	21	43
	35 - 40 ...	74	902	9	15	34	849	17	100
	40 - 45 ...	41	923	16	20	16	763	10	211
	45 - 55 ...	28	925	13	34	16	635	11	338
	55 - 65 ...	17	882	14	87	8	479	7	506
	65 - 75 ...	17	799	15	169	9	296	5	690
75 - ...	13	667	3	317	10	127	...	863	
15 & over ...	327	632	8	33	220	590	10	180	
CHRISTIANS	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	1,000	...	...	...	997	3	...	...
	15 - 20 ...	991	8	1	...	865	132	...	3
	20 - 25 ...	913	85	...	2	514	461	5	20
	25 - 30 ...	661	334	...	5	378	591	2	29
	30 - 35 ...	365	624	4	7	302	627	2	69
	35 - 40 ...	245	739	5	11	253	585	5	157
	40 - 45 ...	259	724	...	17	291	470	2	237
	45 - 55 ...	224	736	36	4	268	354	4	374
	55 - 65 ...	277	649	2	72	351	186	...	463
	65 - 75 ...	288	537	...	175	328	83	3	586
75 - ...	465	406	...	129	307	18	...	675	
15 & over ...	591	386	2	21	417	388	3	192	

SUBSIDIARY TABLE No. III(c).

Distribution by conjugal condition and sex per 1,000 of population in each age period.

JAFFA, TEL AVIV AND HAIFA TOWNS.

TOWN	AGE	MALES				FEMALES			
		Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
1	2	3	4	5	6	7	8	9	10
TEL AVIV	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	998	1	1	...	1,000	...	...	...
	15 - 20 ...	998	2	...	...	943	53	2	2
	20 - 25 ...	837	160	3	...	589	383	7	21
	25 - 30 ...	447	546	4	3	255	657	15	73
	30 - 35 ...	155	834	6	5	95	773	20	112
	35 - 40 ...	81	905	5	9	55	787	21	137
	40 - 45 ...	45	939	5	11	33	774	21	172
	45 - 55 ...	29	937	8	26	16	720	9	255
	55 - 65 ...	11	892	5	92	14	566	6	414
	65 - 75 ...	9	801	8	182	4	377	...	619
75 - ...	16	623	...	361	14	164	...	822	
15 & over ...	335	629	5	31	274	559	11	156	
JAFFA	0 - 10 ...	999	1	...	...	999	1	...	...
	10 - 15 ...	999	1	...	...	990	10	...	...
	15 - 20 ...	967	32	...	1	590	401	3	6
	20 - 25 ...	737	255	2	6	216	755	9	20
	25 - 30 ...	454	522	14	10	107	855	8	30
	30 - 35 ...	240	733	9	18	59	870	12	59
	35 - 40 ...	162	808	10	20	63	834	5	98
	40 - 45 ...	102	852	12	34	56	720	8	216
	45 - 55 ...	91	855	9	45	48	541	10	401
	55 - 65 ...	65	830	10	95	54	341	14	591
	65 - 75 ...	54	784	16	146	50	189	6	755
75 - ...	61	675	13	251	32	82	3	883	
15 & over ...	390	571	8	31	157	657	8	178	
HAIFA	0 - 10 ...	1,000	...	...	...	1,000	...	...	...
	10 - 15 ...	998	1	...	1	993	7	...	...
	15 - 20 ...	982	18	...	...	734	256	4	6
	20 - 25 ...	816	179	2	3	365	618	6	11
	25 - 30 ...	481	506	3	10	152	819	8	21
	30 - 35 ...	220	767	5	8	87	862	11	40
	35 - 40 ...	123	852	8	17	77	822	14	87
	40 - 45 ...	106	866	5	23	69	728	10	193
	45 - 55 ...	72	888	8	32	68	570	7	355
	55 - 65 ...	47	895	4	54	49	401	4	546
	65 - 75 ...	61	795	4	140	58	225	...	717
75 - ...	65	595	5	335	58	112	3	827	
15 & over ...	425	550	5	20	220	628	7	145	

SUBSIDIARY TABLE No. IV.

Distribution by main age periods and conjugal condition of 10,000 of each sex and religion.

RELIGION	AGE	MALES					FEMALES				
			Unmarried	Married	Divorced	Widowed		Unmarried	Married	Divorced	Widowed
ALL RELIGIONS	ALL AGES ...	10,000	6,076	3,730	25	169	10,000	4,793	4,053	48	1,106
	0 - 5 ...	1,752	1,752	...	...	...	1,728	1,728	...	...	...
	5 - 15 ...	2,309	2,307	2	...	...	2,059	2,055	4	...	...
	15 - 25 ...	1,586	1,332	248	2	4	1,529	726	783	7	13
	25 - 45 ...	2,765	627	2,079	15	44	2,935	213	2,497	23	202
	45 - 65 ...	1,174	45	1,069	6	54	1,273	53	677	14	529
	65 - ...	414	13	332	2	67	476	18	92	4	362
MOSLEMS	ALL AGES ...	10,000	6,101	3,702	24	173	10,000	4,698	4,139	46	1,117
	0 - 5 ...	1,888	1,888	...	...	...	1,883	1,883	...	...	...
	5 - 15 ...	2,424	2,422	2	...	...	2,115	2,110	5	...	...
	15 - 25 ...	1,451	1,193	251	3	4	1,383	539	825	6	13
	25 - 45 ...	2,639	555	2,017	14	53	2,904	125	2,567	19	193
	45 - 65 ...	1,179	34	1,086	5	54	1,246	31	658	16	541
	65 - ...	419	9	346	2	62	469	10	84	5	370
JEWS	ALL AGES ...	10,000	5,697	4,104	36	163	10,000	4,836	4,146	67	951
	0 - 5 ...	1,370	1,370	...	...	...	1,327	1,327	...	...	...
	5 - 15 ...	1,939	1,939	...	...	...	1,886	1,885	1	...	...
	15 - 25 ...	1,857	1,592	261	3	1	1,960	1,261	676	11	12
	25 - 45 ...	3,337	771	2,525	19	22	3,150	345	2,548	44	213
	45 - 65 ...	1,123	20	1,033	10	60	1,248	15	793	11	429
	65 - ...	374	5	285	4	80	429	3	128	1	297
CHRISTIANS	ALL AGES ...	10,000	6,638	3,210	10	142	10,000	5,419	3,246	20	1,315
	0 - 5 ...	1,440	1,440	...	...	...	1,337	1,337	...	...	...
	5 - 15 ...	2,139	2,138	1	...	...	1,964	1,961	3	...	...
	15 - 25 ...	2,137	1,930	204	1	2	1,819	1,113	694	2	10
	25 - 45 ...	2,626	891	1,705	8	22	2,753	622	1,872	12	247
	45 - 65 ...	1,224	176	998	1	49	1,521	288	597	5	631
	65 - ...	434	63	302	...	69	606	98	80	1	427

SUBSIDIARY

Proportion of sexes by civil condition in main age periods

DISTRICT AND RELIGION	NUMBER OF											
	ALL AGES*				0 - 5				5 - 15			
	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
1	2	3	4	5	6	7	8	9	10	11	12	13
PALESTINE	768	1,058	1,877	6,367	960	(5,000)	...	...	867	(3,154)	(2,000)	(2,500)
ALL RELIGIONS	768	1,058	1,877	6,367	960	(5,000)	...	...	867	(3,154)	(2,000)	(2,500)
Moslems	746	1,083	(1,867)	6,233	966	(5,000)	...	...	844	(3,138)	(3,000)	(2,500)
Christians	809	1,003	(2,023)	(9,176)	921	...	...	...	909	(4,000)	...	...
Jews	835	993	(1,848)	5,752	952	...	...	...	956	(2,250)	(1,000)	...
SOUTHERN DISTRICT	754	1,043	(1,679)	5,809	966	(3,500)	...	...	863	(2,152)	(1,500)	(4,000)
JERUSALEM DISTRICT	790	1,089	(1,881)	7,122	959	...	...	...	869	(4,278)	...	...
NORTHERN DISTRICT	763	1,050	(2,040)	6,342	957	...	...	...	868	(4,071)	...	1,050
JAFFA TOWN :												
ALL RELIGIONS	674	998	(890)	(4,979)	938	(3,000)	...	...	833	(3,286)	...	...
Moslems	618	997	(808)	(4,134)	936	(3,000)	...	...	796	(3,500)	...	...
Christians	778	997	(1,000)	(10,834)	(961)	...	...	...	(877)	...	...	...
Jews	849	1,005	(1,571)	(5,564)	(921)	...	...	...	(981)	(2,000)	...	...
TEL AVIV TOWN	946	958	(2,775)	6,448	990	...	...	...	993	...	...	...
JERUSALEM TOWN :												
ALL RELIGIONS	801	1,002	(1,460)	5,434	945	...	...	...	911	(8,000)	...	...
Moslems	611	888	(1,424)	(5,458)	902	...	...	...	754	(11,000)	...	...
Christians	795	983	(1,546)	(8,822)	998	...	...	...	912	...	...	...
Jews	898	1,052	(1,462)	(6,148)	949	...	...	...	985	(3,000)	...	...
HAIFA TOWN :												
ALL RELIGIONS	694	953	(1,568)	(6,017)	896	...	...	...	943	(12,000)	...	...
Moslems	614	917	(1,095)	(4,191)	920	...	...	...	905	(11,000)	...	...
Christians	730	931	(2,556)	(9,936)	(872)	...	...	...	1,018	...	...	...
Jews	776	1,011	(2,044)	(7,574)	(878)	...	...	...	938	...	...	...

*Excluding not recorded.

TABLE No. V.
for religions, districts and main towns.

FEMALES PER 1,000 MALES

15 - 25				25 - 45				45 - 65				65 and over			
Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
531	3,076	(2,669)	(3,300)	331	1,168	(1,543)	4,422	1,140	616	(2,489)	9,464	1,302	271	(1,611)	5,307
531	3,076	(2,669)	(3,300)	331	1,168	(1,543)	4,422	1,140	616	(2,489)	9,464	1,302	271	(1,611)	5,307
437	3,179	(2,322)	(2,679)	218	1,232	(1,302)	3,545	869	587	(3,089)	9,776	(1,155)	236	(2,095)	5,730
572	(3,372)	(3,000)	(5,222)	690	1,088	(1,821)	(10,951)	(1,623)	594	(2,100)	(12,639)	(1,559)	(262)	(2,500)	(6,195)
779	2,548	(3,654)	(13,375)	439	992	(2,202)	(9,325)	(730)	754	(1,155)	(7,051)	(604)	442	(258)	(3,679)
507	3,197	(3,364)	(3,156)	295	1,132	(1,395)	(4,767)	(657)	634	(2,020)	(7,749)	(884)	282	(1,158)	4,899
549	2,959	(2,464)	(3,875)	413	1,249	(1,713)	(5,403)	(1,451)	651	(2,208)	(11,192)	(1,384)	286	(1,419)	(5,465)
536	3,063	(2,368)	(3,190)	310	1,150	(1,569)	3,842	(1,215)	578	(3,133)	9,885	(1,473)	246	(2,205)	5,522
383	(3,330)	(5,600)	(3,500)	(246)	1,007	(641)	(3,922)	(522)	470	(1,069)	(6,472)	(740)	(194)	(308)	(4,329)
(237)	(3,245)	(5,500)	(3,000)	(127)	997	(539)	(2,917)	(333)	(438)	(1,037)	(5,892)	(613)	(187)	(364)	(3,677)
(666)	(5,189)	...	...	(534)	(1,049)	(500)	(14,556)	(888)	(460)	...	(10,500)	(1,000)	(133)	...	(9,236)
(677)	(2,669)	(5,000)	...	(422)	(1,009)	(1,556)	(7,000)	(727)	(630)	(1,500)	(5,310)	(667)	(304)	...	(4,429)
1,017	(3,355)	(5,750)	...	645	972	(3,795)	(19,889)	(758)	755	(1,239)	(6,396)	(600)	(459)	...	(3,225)
621	2,666	(4,000)	(4,924)	514	1,040	(1,610)	(6,939)	(1,298)	637	(875)	(8,941)	(1,289)	(323)	(650)	(4,364)
(310)	(2,671)	(3,000)	(2,375)	(237)	888	(1,211)	(4,349)	(857)	(406)	(1,167)	(8,255)	(885)	(128)	(1,000)	(4,052)
519	(3,876)	(5,000)	(7,333)	(758)	1,062	(1,333)	12,960	(1,553)	(507)	(750)	(10,131)	(1,463)	(196)	...	(5,811)
860	(2,442)	(4,500)	(11,500)	(484)	1,097	(1,758)	(7,284)	(682)	766	(842)	(8,810)	(737)	(401)	(462)	(4,130)
479	(3,333)	(3,286)	(4,100)	(299)	914	(1,653)	(4,193)	(912)	544	(889)	(10,353)	(1,098)	(291)	(333)	(4,477)
(243)	(3,289)	(2,750)	(3,333)	(98)	840	(1,080)	(2,975)	(229)	(417)	(635)	(6,846)	(846)	(179)	(500)	(3,449)
(521)	(3,155)	(1,000)	(5,000)	(470)	941	(3,000)	(6,250)	(1,588)	(505)	(3,000)	(18,230)	(1,650)	(296)	...	(7,065)
(782)	(3,800)	(10,000)	...	(348)	980	(2,125)	(6,867)	(625)	(732)	(600)	(11,584)	(200)	(481)	...	(4,448)

0 brackets signify that the proportions are calculated on population groups when these number less than 1,000.

SUBSIDIARY TABLE No. VI.

Number of persons unmarried per 1,000 of each sex and religion by main age period.

AGE	PALESTINE ALL RELIGIONS		MOSLEMS		CHRISTIANS		JEWS	
	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9
15 - ...	962	730	951	657	984	807	987	882
20 - ...	748	301	718	216	850	439	770	479
25 - ...	425	118	402	73	560	270	436	195
30 - ...	186	59	184	35	285	220	152	77
35 - ...	96	45	93	26	176	192	72	40
40 - ...	53	42	45	24	151	195	35	23
50 - ...	35	40	25	24	146	181	14	8

SUBSIDIARY TABLE No. VII.

Number of females widowed per 1,000 females of each religion by main age period.

AGE	MOSLEMS	JEWS	CHRISTIANS
15 - 20 ...	3	1	3
20 - 25 ...	13	10	8
25 - 30 ...	22	30	22
30 - 35 ...	41	55	56
35 - 40 ...	74	92	119
40 - 45 ...	165	163	208
45 - 50 ...	254	212	301
50 - 55 ...	424	322	412
55 - 60 ...	502	342	445
60 - 65 ...	637	532	559
65 - 70 ...	700	580	612
70 - 75 ...	779	721	698
75 - ...	853	840	792

CHAPTER VIII.—EDUCATION.

165. The need for information as to the state of literacy of a population for whom the advantages of compulsory education are not available is imperative : but the method by which that information is to be obtained will always be a subject for criticism. In the first place literacy is a condition with a wide range, so that its definition for the purposes of an inquiry is a matter of considerable difficulty. When the definition is settled there appears the further difficulty of assessing in relation to the definition the condition of the population under consideration. Shall a test related to the definition be imposed ? If so, by what agency ? If the test have character of an examination and be universal, is there any certainty that all the examiners required shall adopt precisely the same standards in assessing the results ? These questions alone suffice to indicate the complexity of the problem both in its administrative nature and in the statistical assessment of the results : and it will be readily accepted that the difficulties increase in direct proportion to the degrees of refinement of information sought. Introductory.

Normally two methods can be used involving one or more of three questions addressed to each member of the population under examination. The two methods are, first, to elicit the information through the agency of a general census, and, secondly to elicit the information from representative samples of the population and apply the results by valid statistical methods to the whole population. The three questions or tests are, first, a question as to the literate capacities of a person ; secondly, a question as to the length of attendance at school ; and, thirdly, an actual test by examination of the literacy of the persons according to the definition adopted. In the case of a homogeneous population inquiry and test through representative samples undoubtedly lead to results of refined value : a heterogeneous population, however, requires a multitude of samples of each type and sub-type within the population, together with a careful examination of the actions and reactions between types and sub-types influencing each other by different degrees of proximity, so that the method of examination, if it is to lead to satisfactory results, implies a fairly complex organization such as is not normally available. It would appear, therefore, that in Palestine with its mixed population it is desirable to obtain crude information by means of a general census and correct and supplement that information by means of inquiry through samples as opportunity is presented. For either method, three questions or tests addressed to a person suffice :—

- i) Do you read and write ?
- ii) Have you attended a school ?
If so, for how many years ?
- iii) Write a letter to a friend and read a letter from a friend.

The first question leaves it to the person concerned to make his own declaration : the second question is valuable because after a certain age most normal persons who have attended an educational institution for a time have some degree of literacy : and the third question imposes a definite test on the person called to make replies and is, of course, susceptible of indefinite extension. The administration of an inquiry based on three questions of this type is obviously within the competence of an agency dealing with representative samples, but it throws a heavy burden on an emergency executive created for the specific purpose of taking a general census. For this reason, most census authorities are charged

with the duty of putting not more than two of the questions to the persons liable to make replies. The following table gives an idea of the method adopted by the several countries :—

Country	Year of census	Able to			School	Attendance
		read	write	read and write	Whether attended school	Result whether finished school, etc.
England and Wales ...	1921	...	...	...	Yes*	...
Belgium	1920	...	...	Yes	...	...
Estonia	1926	Yes	Yes	Yes	Yes	Yes
France	1926	...	...	Yes	...	...
Greece	1920	...	...	Yes	...	...
Italy	1921	Yes	...	...	...	...
Latvia	1925	Yes	Yes	Yes	Yes	Yes
Lithuania	1923	Yes	Yes	Yes	...	...
Austria	1923	...	...	Yes	Yes	Yes
Poland	1921	...	...	...	...	Yes
Canada	1921	Yes	Yes	Yes	Yes	...
U.S.A.	1920	Yes	Yes	Yes	Yes	...
Cyprus	1921	Yes	Yes	...	...	...
Egypt	1927	...	...	Yes	Yes	Yes
India	1911-1921	...	...	Yes by test by letter from and to a friend	...	...

*For those attending school qualified by words " Part-time " and " Whole-time ".

In general, it is left to the persons enumerated to decide if they are literate or not : in India a test is imposed and enumerators are instructed to satisfy themselves that persons can write a letter to and read a letter from a friend. It often happens that a person can read a printed page but cannot read manuscript ; or that a person can read both printed page and manuscript but cannot write. The test in India is therefore by intention fairly stringent, and the census authorities seem to be satisfied with the general accuracy of the results. It is certainly a remarkable achievement to arrange as a piece of practical census administration that a test of this sort should be imposed on a variety of peoples with a variety of dialects within a variety of languages.

166. It is a point of great debate how far the answers of an enumerated population in regard to literacy may be accepted. It is generally believed that the greater the illiteracy the greater the reliability of the results. It will be comprehensible that this belief has a high degree of probability, for a person in a community where education is prized as a quality worth having may well be disposed to give to himself, in a census return, an attribute that he, in common with his community, considers desirable, and to deny the lack of it, which he regards, again in common with his community, as something of which to be ashamed. On the other side, where education is not prized, the lack of it is of no importance in any social sense, so that there is no embarrassment in declaring an illiteracy which is shared by most of the community. The German statistician G. von Mayr held the view that there is a tendency to exaggerate the importance of census inquiries into literacy in countries where the populations are predominantly illiterate, and a contrary tendency in countries where the populations are predominantly literate to some degree. The difficulties involved in the problem, some of which are mentioned at the beginning of this chapter, give ground for holding such a view, the truth being that literacy requires exact definition, that exact definition leads to degrees of literacy, and that the refined analysis necessary to the investigation of the problem demands a variety of questions and tests beyond the resources of a census administration. Such difficulties are not so prominent when the population under investigation is largely illiterate, so that an elementary

inquiry may lead to an apparent definiteness of result that can only be obtained among literate people by detailed question and refined inquiry. The apparent definiteness of the results in an illiterate population, may, itself, be the cause of the belief that the results in respect of such a population are reliable.

167. Careful consideration was given to the whole matter before it was decided to proceed with an inquiry into literacy in Palestine through the agency of the census. It was finally decided to impose no tests but to allow the people to make their own subjective declarations as to their possession or lack of literacy, and then to supplement those declarations by an inquiry into the length of attendance at any educational institution of any type whatever. The information obtained by this means is, of course, crude; but, when it is associated with the ages of persons, it is instructive as regards both the effective educational differences between pre-war Turkish and the post-war British administrations, and also general educational policy at the present time. Education is undoubtedly regarded by all the inhabitants, even the nomads, as a desirable thing, not perhaps in essence but as a means to material advancement; and it is possible that subjective declarations reflect not only that this desirable thing is desired, but that it has been gained, so that a greater number of persons have been returned as literate than could be regarded as literate on any standard; on the other hand, a number of persons in adult year declared that they were illiterate notwithstanding the fact that they had attended some educational institution for a period in their young ages. Among literate people, a confession of a decline in literacy with advancing years is unusual: but, since the majority of the population of Palestine are illiterate, the experience of a literate population may be irrelevant. The alternative interpretations are, therefore, either that such illiterate persons have told the complete truth about themselves, or that they have sought to attach to themselves those superior qualities, other than literacy, which the mere attendance at school may be supposed to confer. Since, however, the truth in regard to either matter is well known in a village community, there was no more reason for falsehood in regard to school-attendance than there was for truth in regard to literacy. It would appear, therefore, that the returns are likely, on the whole, to be truthful and that the information, so far as it goes, valid.

168. The instructions to the enumerators were:—

Reference to
the statistics.

“Enter for all persons who can read and write in any language the word ‘Yes’. For all others enter the word ‘No’. In either case if the person has been at school or educational institution at any time enter the period in years also, e.g. ‘Yes, five’; ‘No, two’.”

A supplementary instruction was also given:—

“There are two questions to be answered. The first question is to ascertain if the person considers himself able to read and write. If the person cannot read or write more than his own name he should be considered illiterate and the word ‘No’ should be entered. The second question is to ascertain if persons have been at school and if so, for how long.”

The absolute statistics are given in Tables IX and IX-A in Volume II. At the end of this chapter will be found the following Subsidiary Tables:—

Subsidiary Table I. — Number of literates per 1,000 of population by religion, age period, sex and district.

Subsidiary Table II. — Number of literates per 1,000 of population in the four main towns by age period, religion and sex.

Subsidiary Table III. — Number of literates per 1,000 of population in towns by age period and sex.

Subsidiary Table IV. — Number of literates per 1,000 of urban population by age, sex and religion.

Subsidiary Table V. — Number of those who attended a school per 1,000 of population by religion, sex and age periods.

NUMBER LITERATE PER 1,000 PERSONS
AGED 7 YEARS AND UPWARDS

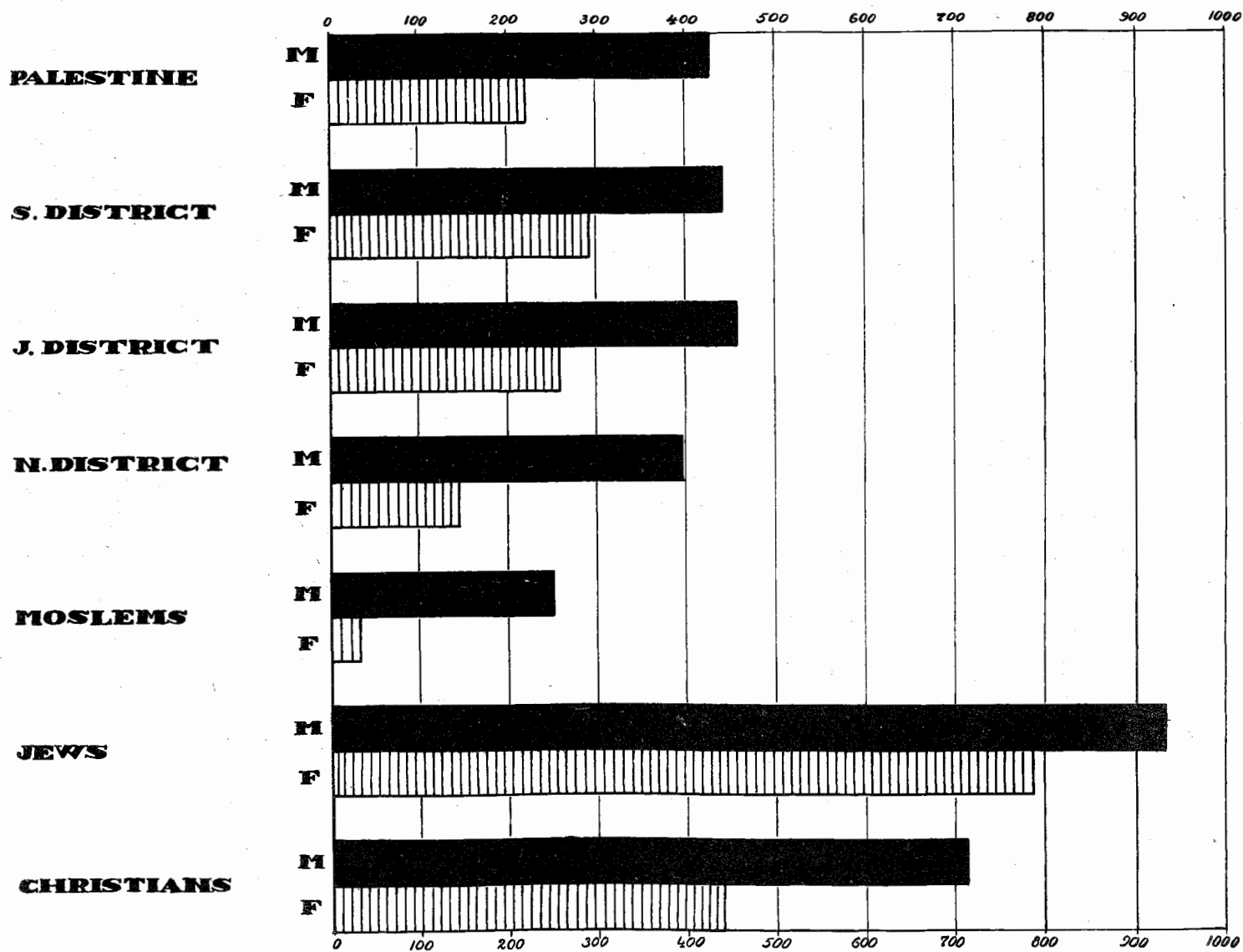


DIAGRAM No. 26

Subsidiary Table VI. — (a) Number of those who have attended or have not attended a school per 1,000 in each age group by sex, religion and years at the educational institution.

(b) Number per 1,000 of each sex in each age group who have attended or who are attending school by religion and by number of years at school.

Subsidiary Table VII. — Number of persons literate who have attended or are attending school per 1,000 literate in each main period by sex and religion.

Subsidiary Table VIII.— (a) Classifications and numbers of books published in Palestine during 1923–1931 :—

(i) Arabic. (ii) English. (iii) Hebrew.

(b) Classifications and numbers of periodicals published in Palestine during 1923–1931 :—

(i) Arabic. (ii) English. (iii) Hebrew.

General features of the statistics.

169. Taking the country as a whole, and considering the population aged 5 years and over, there are 300 literate persons per thousand, being 404 literate males and 211 literate females per thousand of the respective sex. These proportions rise to 326, 428, and 221 respectively for the population aged seven years and over. The statistics by religious confession show the widest diversity between the respective communities. The statistics are repeated below :—

Age in years	Literate per thousand														
	All religions			Moslems			Jews			Christians			Others		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
5 & over	309	404	211	135	234	32	834	903	765	555	683	427	199	343	101
7 & over	326	428	221	144	251	33	861	934	787	577	715	441	233	362	104

These figures are illustrated in Diagram No. 26.

The minor religious confessions are here included because over 90 per cent. of the persons forming this class are Druzes, so that the proportions stated for this population are approximately those of the Druzes, but are somewhat higher by reason of the fact that the class includes a small number of educated persons adhering to confessions either not classified or having no confession.

Only one fourth of the male and less than one thirtieth of the female Moslem population have been returned as literate : over 90 per cent. of the Jewish males and nearly 80 per cent. of the Jewish females have been returned as literate : the proportions for Christians are about 70 per cent. for the males and rather more than two fifths for the females : while for the Druzes the proportions are about one third for the males and one tenth for the females. The answer to the census question as to literacy is, according to the declarations of the people themselves, that the Jews are predominantly the literate community, the Christians taking second place, the Druzes being third but considerably behind the Christians, while the Moslems are the most illiterate, being notably worse than the Druzes.

Literacy in the districts.

170. The distribution by districts of the literates by religion for all ages from seven years brings out the interesting facts that the proportion literate among Moslems is highest for males in the Northern district and the proportion for Moslem females is highest in the Jerusalem district. Having regard to the

proportions literate in the ages 21 years and upward, it may be inferred that, in the case of the males save those in the present child and adolescent years, facilities for education and hence the acquisition of literacy varied for the older ages inversely with the distance from Syria which, by tradition, is not only the home of the most intellectual type of the native-born Moslems in eastern Mediterranean lands, but also, through its Turkish provincial government, adopted a more progressive educational policy than its southern neighbour, the *sanjak* of Jerusalem. In the case of the females, however, the proportions indicate that, meagre as were the past facilities for education, there was more opportunity in pre-war days for women to receive instruction at Jerusalem than in other centres in the country. In this respect it should be stated that many Moslem families have not failed in the past to avail themselves of the facilities for female education offered by the Christian convents in and around Jerusalem. The district distribution for the Jews gives priority to the Southern district in regard to proportionate literacy, the Northern district coming second, with the Jerusalem district last with a heavily reduced ratio in the case of the females. The proportions for each sex in the Jerusalem district are depressed by influences due to the presence of the oriental communities of Jews found in the city itself. The general proportion of literacy among Christians aged 7 years and upward in the districts give first place to the Southern district, but the figures by sex show that the proportion of Christian males literate is highest in the Jerusalem district, while the proportion of Christian females literate is highest, somewhat surprisingly, in the Southern district. It is possible that the Christian communities in the Southern district, existing in small discrete elements, receive at the hands of the parochial priests a more personal attention than is possible where the pastor has responsibility towards larger congregations, so that girls receive in these communities as much attention as the boys, with the results shown in the statistics. In the case of the group of minor religions the district distribution is unreliable except in the Northern district, where the proportions may be taken as representative of the Druze population, whose general literate characteristics have been shown to be superior to those of the Moslems.

171. The following table shows the comparative figures for certain countries and for Palestine in the ages 5-13 years inclusive and 5 years and over :—

General comparisons.

NUMBER OF LITERATE PERSONS PER 1,000 OF POPULATION IN DIFFERENT COUNTRIES BY SEX AND AGE PERIODS.

COUNTRY	Year of census	Aged 5 - 14 years		Aged 5 years and over		
		Males	Females	Males	Females	
Italy*	1921	749	741	756	696	
Latvia	1930	633	626	853	801	
Greece	1928	705	579	733	411	
Bulgaria	1926	539	496	687	435	
U.S.S.R.	1926	Europe	483	351	674	382
		Asia	264	178	359	175
		Total†	...	...	174	46
Turkey	1927	Europe§	...	...	335	204
		Asia	...	...	113	25
Cyprus‡	1921	600	403	...	...
Egypt :	1927	All religions	217	71	229	47
		Moslems	...	...	203	25
		Christians	...	...	470	249
		Jews	...	...	817	639
Indian Provinces :						
Burma	1921	...	...	510	112	
Bengal :	1921	All religions	...	...	181	21
		Moslems	...	...	109	8
		Christians	...	...	539	425
Madras	1921	...	...	173	24	
Bombay	1921	...	...	138	24	
Punjab	1921	...	...	74	9	
United Provinces	1921	...	...	74	7	
Palestine :	1931	All religions	340	203	404	211
		Moslems	235	54	234	32
		Christians	543	473	683	427
		Jews	763	730	903	765

*Aged 6 - 14, 6 and over. †Aged 7 and over. §All ages. ‡Including aged 14.

The table is interesting as showing that the mixture of cultural standards in Palestine has the effect of placing the whole population, as regards literacy, in a position midway between the western and the oriental countries. While the Jews of Palestine easily have priority in the table in regard to male literacy, the Christians begin to approach the average standards of the European countries shown, and the Moslems take place with those of Egypt and Asiatic countries in respect of both sexes. The figures shown for Moslems in the Indian province of Bengal are interesting as showing that the prevalence of illiteracy among Moslems in Mediterranean countries should not, perhaps, be attributed solely to the deadening influences of Constantinople on Arab Moslem life. It would seem that the traditional early teaching of prayers and of verses from the *Quran* to Moslem boys has taken the place of secular education in regard to reading and writing usual among other communities in these early years of life. The postponement of secular education, in a community unable easily to find an economic existence, must have inevitably led to complete lack of opportunity to take advantage of such facilities for secular education as were provided, and hence to the high proportion of illiteracy in the community.

From this point of view the comparison between the illiteracy of Palestine and that of Egypt by the three communities is of great interest. The table is given below:—

NUMBER OF ILLITERATE PERSONS PER 1,000 OF POPULATION AGED 5 YEARS AND OVER
BY SEX AND RELIGION.

Country	Year of census	Moslems			Christians			Jews		
		Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
Egypt ...	1927	886	797	975	640	530	751	273	183	360
Palestine ...	1931	865	766	968	445	317	573	166	97	235

It will be seen that, notwithstanding the educational advantages given in Egypt for many years, the Moslems of Palestine show a slightly better condition of literacy than the Moslems of Egypt.

Considerable interest attaches to the low proportion of illiteracy among the Jews. The following table gives comparisons between Palestine and other countries in this respect:—

NUMBER OF ILLITERATE JEWS PER 1,000 JEWS IN DIFFERENT COUNTRIES AND TOWNS

COUNTRY :	Year of census	Aged 5 years and upward Both sexes		
		Both sexes	Males	Females
Russia ...	1926	290	...	...
Ukraine ...	1926	300	...	...
White Russia ...	1926	312	...	...
Lithuania ...	1923	323*	...	...
Hungary ...	1920	44†	...	...
Bulgaria ...	1920	310‡	...	...
Egypt ...	1927	273‡	...	...
Palestine ...	1931	166	...	...
TOWN :		Aged 5 years and upward		
	Year of census	Both sexes	Males	Females
Leningrad ...	1926	119	...	...
Moscow ...	1926	137	...	...
Ukraine (Urban population) ...	1926	284	...	...
White Russia (Urban population) ...	1926	309	...	...
Kaunas ...	1923	...	164	270
Jerusalem ††	1931	224	105	333
Tel Aviv †††	1931	71	30	110
Haifa †††	1931	99	49	130
Jaffa ††	1931	331	213	448

*Age, 10 years and over.

†Age, 6 years and over.

‡Age, All ages.

‡†Age, 7 years and over.

Apart from Hungary, the proportion of illiteracy among Jews in Palestine is most markedly low and would be even lower if it were not for the relatively high proportion of illiteracy in the oriental Jewish communities in the country. While the illiteracy among Jewish females in these communities occasions no surprise, it is curious that the males of these communities should return comparatively high proportions of illiteracy. The usual assumption in regard to these persons is that they are primarily engaged in devotional or other religious activity demanding knowledge of both reading and writing; but, taking the case of the Jews in Jaffa town as typical of the whole group since not many western Jews live in Jaffa, it appears that more than one fifth of the males aged 7 years and upward are unable to read and write.

172. The preceding general discussion has shown the need for more detailed examination of literacy of the three main communities. The Moslem population is roughly 70 per cent. of the settled population, but of the number of literate persons of all religions only 30 per cent. are Moslems. If the nomadic populations, which are all Moslem, be included the disparity is, of course, even greater. A more striking illustration is afforded by a comparison between the least and most literate of the communities: the Moslem population is four times the Jewish population while the number of illiterates among Moslems is thirteen times the number of illiterates among Jews. A glance at Subsidiary Table I shows that in every hundred Moslems of both sexes aged seven years and over only 14 are literate, the proportions for the sexes at these ages being 25 for males and only 3 for females. Subsidiary Tables III and IV show the very striking differences between the proportions of literate Moslems in the urban and rural populations. It is natural to expect that persons living in towns should be more literate than those living in the rural areas, if only because it is easier to provide educational facilities in more densely populated areas. It will be seen that taking both sexes together the proportion of literacy in the towns is 260 per thousand and 217 per thousand according to the class of towns, that is, on the whole, more than double the proportion for the rural population, 109 per thousand; while the proportion of literate females is most emphatically higher in the urban population being 6 per thousand in the rural population and 140 and 95 per thousand in the two classes of towns. There are, however, large variations in the proportions as between town and town, Jerusalem returning the highest with 366 per thousand and Jaffa the lowest with 210 per thousand. Even when pre-eminently rural towns such as Khan Yunis and Majdal in the Southern district are examined, it is found that the proportion of literacy in their populations is markedly higher than the average proportion in the village population. In general it may be said that the statistics reflect an unevenness inevitable where education is not compulsory: and that there is a very wide disparity between the males and females of the Moslem community in literacy, partly due to the tradition that eastern women need not be educated, and partly due to the lack of facilities for female education. The literacy among Moslem females in Jerusalem is, of course, weighted to some extent by the presence at the time of the census of girls in educational institutions who live outside Jerusalem. This, in itself, is an indication that the traditions as regards female education are not likely to survive if the means for education are available.

Literacy by religion.

(a) Moslems.

The correlation between Moslem literacy and age reveals that the largest proportion of literates is in the age group 7-14 years. The British Occupation had lasted thirteen years by the time of the census so that, for all practical purposes, the surviving population aged 14-21 years was born either in the years of the war or in the four years preceding it. The fact that the proportion of literates is higher in the age group 7-14 years than in the group 14-21 years is an indication that progress has been made in granting educational facilities since the war, since the decline in literacy with advancing years is not likely to be emphatic between the ages of 14 and 21 years. This improvement is more marked in the rural population for males and in the urban population for females, although, in the case of girls, allowance must be made for a concentration

in the towns due to residential institutions in which education is given to girls from various parts of the country. The proportion of literacy is a minimum in the age group 21 years and over, indicating clearly a lack of educational facilities for the population born before the war, and also a probable decline of literacy with advancing years.

(b) **Christians.** 173. The Christian population is in a greatly better condition of literacy than the Moslem community. More than 70 per cent. of the males and almost 45 per cent. of the females aged 7 years and over are literate. The difference between the male and female proportions of literacy is reduced to a minimum in the main age group 7-14 years; while the proportions are almost equal in the small age group 5-7 years. The indication is that the young generation of Christian females is taking progressive advantage of the educational facilities available in the country.

It has been already noted in the preceding section of this chapter that, regarded by district distribution, Christian literacy is highest in the Southern district. In Jerusalem the proportion literate of the age of 7 years upward is as high as 75 per cent. Jerusalem however provides an especially literate population by reason of the presence of a significant number of Europeans living in the city.

The difference between the urban and rural populations as regards literacy is well-marked but in a smaller degree than is the case with the Moslem population. The proportion of literacy for both sexes together is about 50 per cent. higher in the urban than in the rural population.

The examination of literacy by age elicits one interesting phenomenon, namely, that the proportion of literacy is highest in the age group 14-21 years. The population in this group, born either just before or during the war, would begin its education in the years immediately following the war. The fact that the proportion of literacy is higher in this group than in the age group 7-14 years may imply regressive features in the educational policy influencing the Christians, and may suggest that educational facilities in the years just succeeding the war were more numerous than during the last five or six years. Against that, however, as will be seen from the third section of this chapter, it can be argued that some children in the earlier years of the age group 7-14 years are not attending school, and begin to make use of educational facilities in the later ages of this group and the earlier ages of the age group 14-21 years. The inference can be drawn therefore that late attendance at school is responsible for the higher proportion of literacy in the later age group. Moreover, the Christian community is disturbed both by immigration and emigration. Young illiterates may realize that the opportunities for their absorption in the economic life of the country are not many, and may therefore emigrate to countries where their manual labour will assure their support. The effect of such a movement on the proportion of literate in these ages would be an increase in the ratio. Equally there may be an immigration of young literates from Syria which would have the effect of a significant increase in the proportion of literacy at these ages; and, finally, the presence of young soldiers in His Majesty's Forces, all of whom are literate, will also raise the proportion of literacy in the ages round about twenty years.

(c) **Jews.** 174. It has already been recorded that the proportion of literacy in Palestine is highest among the Jews, of the males of whom 93 per cent. are literate, and of the females 79 per cent. The distribution of literacy by districts shows remarkable variations, the maximum being manifested in the Southern district which is governed to a large extent by the population of Tel Aviv where 97 per cent. of the males and 89 per cent. of the females have been returned as literate. The differences between the proportions of male and female literates are considerably smaller than those exhibited by the Moslem and Christian communities particularly at school ages. Nevertheless of the females aged 7 years and upward more than one fifth are illiterate, while in the age group 7-14 years in the different districts 17-18 per cent. of the females are illiterate.

Contrary to usual experience, the literacy in the Jewish rural population is higher than that in the urban population. In all age groups, and especially among females, the literacy in the villages is higher than in the towns : while in the age group 14-21 years the proportion of literates among Jewish males reaches the extraordinary figure of 99 per cent. The following reasons account for this phenomenon : first, the oriental Jewish communities, among whom the highest proportions of illiteracy are found, are concentrated in the towns : secondly, life in the villages has a strong attraction for educated immigrant Jews : thirdly, admission fees in the Jewish village schools are low, the villages themselves contributing by voluntary levy to the maintenance of these schools ; and, lastly, there is small demand for domestic service in the villages so that young girls are enabled to attend schools, whereas, in the towns, some of the domestic work of households is done by girls of school age.

The statistics of literacy by age reveal the phenomenon of a higher proportion in the age group 14-21 years than in the earlier age group—a phenomenon already noted in the case of the Christian population. Here again the reasons may be found in a proportion of late attendance at school in the age group 7-14 years, and in the immigration of literates from Europe in the age group 14-21 years.

175. This brief summary leads to the following conclusions as to the nature of the educational problems of the future :—

General conclusions.

- (i) The problem of Moslem education is the provision of greatly increased facilities for primary education and an extension of the means for educating the younger females.
- (ii) The problem for the Christian community is the provision of means for gradually extending the present facilities.
- (iii) The problem for the Jewish community is the maintenance of the present high standards of primary education, and the creation of extended facilities for educating the members, particularly the female members, of the communities of eastern Jews.

ATTENDANCE AT SCHOOL.

176. It has been explained in the first section of this chapter that it was considered desirable to inquire more closely into the question of the literacy of the population by eliciting information as to whether the persons enumerated had ever attended some kind of educational institution, without specifying its character, and if so, for how many years. The absolute statistics are given in Table IX-A in Volume II of this Report, and the following Subsidiary Tables are given at the end of this chapter :—

General.

Subsidiary Table V. — Number of those who attended a school per 1,000 of population by religion, sex and age periods.

Subsidiary Table VI. — (a) Number of those who have attended or have not attended a school per 1,000 in each age group by sex, religion and years at the education institution.

(b) Number per 1,000 of each sex in each age group who have attended or who are attending school by religion and by number of years at school.

Subsidiary Table VII. — Number of persons literate who have attended or are attending school per 1,000 literate in each main age period by sex and religion.

It will be seen from Subsidiary Table V that, in the age period 0-7 years, while 1 per cent. of the Moslem males and 0.5 per cent. of the Moslem females have attended school, the proportions for the Jews are nearly 14 per cent. and 13 per

cent. respectively for males and females, the proportions for Christians being about 7 per cent. In the case of the Christians the proportion is slightly in favour of the females as against the males, the differences in the other communities being slightly in favour of the males. There is therefore striking evidence of the fact that Jews tend to begin the institutional education of their children before the age of 7 years. If the figures published in the Annual Report of the Department of Education 1931 be taken, it will be found that the percentage ratio of Jewish children aged 4-7 years attending the schools of the Jewish Agency to the total Jewish child-population aged 4-7 years is 41 per cent. for boys and 52 per cent. for girls. These ratios are smaller than the true ratios which will be based on the population attending all Jewish schools and not only those of the Jewish Agency. The absolute figures are not available but it is probable that 60 per cent. of Jewish children aged 4-7 years are attending some kind of institution for education. No statistics are given in the Annual Report of the Department of Education regarding the ages of Moslem and Christian pupils in schools not directly administered by the Government : but the general proportions of attendance at school in the age group 0-7 years in the three communities indicate that the proportions of Moslems and Christian children aged 4-7 years attending schools is considerably smaller than the proportion of Jewish children : and it is not an unsafe inference that the proportions in these two communities would be raised if educational facilities of the kindergarten type were available.

Taking the population aged 7 years and over, only 23 per cent. of the Moslem males and 3-4 per cent. of the Moslem females have attended school. The similar proportions for Jews and Christians are 88 per cent. and 74 per cent. for Jews, and 66 per cent. and 42 per cent. for Christians. In both the Jewish and the Christian communities the highest proportion of education at school is found in the age group 14-21 years, while in the Moslem community the maximum proportion is in the age group 7-14 years. The principal inference to be made is that it is only in recent years that progress has been made in providing educational facilities for Moslems : there is a secondary inference that, while the proportion of children in early years attending school is greatly higher in the Jewish and the Christian communities than in the Moslem community, some of the children begin their education later in life and do not complete it until they are in the age group 14-21 years. In fact Jewish and Christian parents do their utmost to send their children to school at some time : if they cannot afford it when the children are young, they strive to make it possible when they are older. This may explain, to some extent, the rather wide range of ages in classes, which is experienced in many schools in the country, children of very different ages being roughly of the same standard of education. The age group 21 years and over has a special significance in that the survivors at these ages were born in the years prior to the war. These persons, particularly those of the Moslem community, are therefore associated with educational facilities provided before or during the war. Only 20 per cent. of the Moslem males and less than 2 per cent. of the Moslem females at these ages have attended an educational institution. It will also be noted that of Jewish females aged 21 years and over more than 30 per cent. have never attended a school.

Years of
attendance at
school.

177. In general, the degree of literacy of persons varies directly with the period of attendance at an educational institution. Disturbance is introduced into the general rule by persons who are below the norm and who, therefore, cannot complete normal studies in average time. A further disturbance is introduced into the general rule as applied to Palestine, and particularly the Jewish community, by the fact that a proportion of the younger immigrants come from European countries, particularly Russia, having completed their primary education in Jewish schools where there was no admission fee, but having been debarred from secondary education, either because they could not afford the fees, or because schools in which higher education is given are State institutions with stringent restrictions as to qualifications, not necessarily educational, for admission. In Palestine such persons have sought to begin and continue their secondary

education at ages somewhat above the normal associated with their standard of education.

The following table shows the distribution per thousand who have attended school for stated periods of years :—

NUMBER PER 1,000 WHO HAVE ATTENDED SCHOOL FOR CERTAIN PERIODS OF YEARS.

Years at school	Moslems		Jews		Christians	
	Males	Females	Males	Females	Males	Females
All ages	1,000	1,000	1,000	1,000	1,000	1,000
0 - 4	655	651	181	262	387	454
5 - 8	275	297	422	466	349	373
9 -12	56	49	277	216	215	145
13 and over	14	3	120	56	49	28

There are several interesting features in this table. Two thirds of the Moslems who have attended school have so attended for less than five years only; and 1.4 per cent. of the males and 0.3 per cent. of the females have attended for 13 years or more. Of the Christian population, two thirds of those who have attended school have attended for at least five years. This proportion is a little higher than the true proportion by reason of the fact that European Christian males living the conventual life have been returned as engaged in study for most of their lives. In the Jewish community about 80 per cent. of those who have attended school have done so for at least five years.

The question of literacy in the communities, having been viewed from three angles, leads definitely to the conclusions that literacy depends on educational facilities and that the illiteracy in Palestine in the Moslem community and to a smaller extent in the Christian community is predominantly caused by lack of those facilities.

It is of interest to note that while, in general, females remain at educational institutions for shorter periods than males, yet, in each community, the proportion of females remaining for a period of 5-8 years at schools is higher than the proportion of males. It would appear that, on the whole, males remain at school either for short or for long periods, while females remain for an intermediate period. This phenomenon is, no doubt, a reflexion of economic and sex conditions. A boy's life is conditioned to some extent by the material circumstances of his family: he may be obliged to assist the earner at an early age. If, on the other hand, higher education can be afforded, the boy is given the maximum benefit of attendance at school, so that he may acquire qualifications enabling him to enter professional occupations regarded as suitable to the status of his family. Girls who attend schools for a period of 5-8 years will, on the whole, be members of families whose material circumstances are well removed from the poverty line, and such girls will not, in general, be required to acquire qualifications of economic value.

178. Subsidiary Table VII shows the proportions of persons who have attended school and who are literate. The differences between one thousand and the several numbers in the table are the proportions of persons who have attended school and who are illiterate. The absolute figures in Table IX, Volume II, show that over 6,000 persons of all communities who have attended school at some time in their lives, some indeed for periods of more than eight years, have been returned as illiterate. The degree of illiteracy of those who have attended schools is dependent upon two factors governed by the age of the population considered. In the age group 0-7 years are included children who are attending kindergartens, or who are inmates of various institutions where some form of educational

Attendance
at school
and literacy.

recreation is provided. In many of these cases, and in practically all the cases under 4 years of age, reading and writing, the test of literacy for purposes of these statistics, have not been acquired. The illiteracy of those aged 21 years and over who have attended a school may be explained on the basis of a decline in literacy with advancing age. In many instances persons, particularly females, in the rural Moslem population are not called to exercise their intellectual capacities beyond the needs of manual agriculture, so that the knowledge acquired at school is put to no practical purpose and passes, therefore, into the limbo of forgotten things.

**Publications
in the three
official
languages.**

179. In a country such as Palestine the progress of literacy may be to some extent gauged by the number of publications in the vernaculars in assigned periods. Subsidiary Table *VIII* shows the absolute numbers of publications classified according to subject and to the character of journals during the period 1923-1931. These figures have been compiled from sources available at the Jewish National and University Library, by the courtesy of whose Director the figures are made public. The figures are accurate from 1927 but may be incomplete in respect of Arabic publications prior to that year. The statistics include publications by the Government in one or more of the official languages.

SUBSIDIARY TABLE No. I.

Number of literate persons per 1,000 of population by religion, age period, sex and district.

DISTRICT	AGE IN YEARS	ALL RELIGIONS			MOSLEMS			JEWS			CHRISTIANS			OTHERS		
		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
PALESTINE ALL DISTRICTS	5 - 7* ...	101	167	87	32	46	18	411	426	394	216	218	214	(72)	(86)	(59)
	5 - 14* ...	276	340	203	152	235	54	747	763	730	510	543	473	214	308	112
	7 - 14 ...	351	432	255	205	313	71	872	889	855	619	663	571	266	(383)	(133)
	14 - 21 ...	369	460	274	180	291	59	917	960	878	703	814	593	233	(374)	(99)
	21 and over ...	309	420	201	116	219	18	848	940	753	536	706	373	224	352	98
	5 and upward* ...	309	404	211	135	234	32	834	903	765	555	683	427	199	343	101
7 and upward† ...	326	428	221	144	251	33	861	934	787	577	715	441	233	362	104	
SOUTHERN DISTRICT	7 - 14 ...	371	435	294	186	280	67	904	929	880	664	684	(638)	(857)	(667)	(1,000)
	14 - 21 ...	400	465	331	156	248	56	937	968	906	693	(780)	(610)	(909)	(900)	(917)
	21 and over ...	364	442	284	94	172	16	901	959	841	586	706	444	(955)	(952)	(958)
	7 and upward† ...	370	444	293	121	206	30	906	956	856	616	713	504	(945)	(931)	(958)
JERUSALEM DISTRICT	7 - 14 ...	405	463	336	201	296	82	846	857	833	635	657	611	(333)	...	(500)
	14 - 21 ...	455	535	375	187	290	75	895	962	836	776	858	693	(583)	(714)	(400)
	21 and over ...	322	441	214	111	206	22	741	900	595	553	727	407	(838)	(837)	(842)
	7 and upward† ...	358	459	259	140	239	41	784	900	677	605	736	485	(767)	(793)	(714)
NORTHERN DISTRICT	7 - 14 ...	304	411	175	216	343	68	858	869	846	586	661	504	258	(381)	(117)
	14 - 21 ...	294	412	168	191	318	53	912	936	888	624	776	472	213	(358)	(77)
	21 and over ...	259	390	131	134	257	17	871	948	784	499	687	309	179	311	51
	7 and upward† ...	273	398	145	160	286	32	874	935	806	534	696	367	200	333	67

*For comparison with other countries the few children returned as literate below the age of 5 years have been included in the groups 5-7 years, 5-14 years and 5 years and over.

†Including those who have not recorded their age.

SUBSIDIARY TABLE No. II.

Number of literate persons per 1,000 of population in the four main towns by age period, religion and sex.

TOWN	AGE IN YEARS	ALL RELIGIONS			MOSLEMS			JEWS			CHRISTIANS		
		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
JERUSALEM	7 - 14 ...	737	745	728	438	479	384	841	850	832	801	808	793
	14 - 21 ...	780	832	727	459	534	355	891	961	832	862	917	799
	21 and over ...	642	779	507	313	442	149	730	894	582	711	836	588
	7 and upward† ...	683	781	583	366	467	235	776	895	667	752	846	654
JAFFA	7 - 14 ...	411	462	350	285	356	193	711	(766)	(659)	705	(710)	(700)
	14 - 21 ...	379	438	315	224	297	138	734	(820)	(654)	702	(768)	(645)
	21 and over ...	319	415	206	181	273	66	636	784	484	554	672	432
	7 and upward† ...	348	428	254	210	294	105	669	787	552	603	693	510
TEL AVIV	7 - 14 ...	939	951	926	(167)	(143)	(200)	940	953	927	(667)	(500)	(1,000)
	14 - 21 ...	966	981	953	(381)	(417)	(333)	968	984	955	(1,000)	(1,000)	(1,000)
	21 and over ...	918	969	871	(306)	(394)	(125)	919	971	874	(874)	(918)	(804)
	7 and upward† ...	928	968	890	(305)	(365)	(200)	929	970	890	(877)	(909)	(830)
HAIFA	7 - 14 ...	541	596	483	271	360	171	904	(927)	(880)	631	(674)	(589)
	14 - 21 ...	561	620	494	273	360	156	935	(939)	(931)	704	(820)	(590)
	21 and over ...	579	660	480	218	327	68	909	957	858	623	762	458
	7 and upward† ...	570	644	483	239	339	106	911	951	870	639	759	504

†Including those who have not recorded their age.

SUBSIDIARY TABLE No. III.

Number of literate persons per 1,000 of population in towns by age period and sex.

TOWN	PERSONS AGED				MALES AGED				FEMALES AGED			
	7-14 years	14-21 years	21 years and over	7 years and over	7-14 years	14-21 years	21 years and over	7 years and over	7-14 years	14-21 years	21 years and over	7 years and over
1	2	3	4	5	6	7	8	9	10	11	12	13
ALL TOWNS	537	568	497	516	573	640	612	609	497	496	381	421
All towns excluding Jerusalem, Tel Aviv and Haifa	371	385	261	304	428	504	409	428	303	273	125	183
SOUTHERN DISTRICT :												
Khan Yunis	(208)	(221)	94	137	(246)	(333)	(195)	225	(164)	(108)	(5)	52
Gaza	143	217	129	145	189	(304)	231	232	88	(136)	38	62
Beersheba	(255)	(269)	237	247	(288)	(378)	(397)	362	(205)	(157)	(70)	(115)
Majdal	(132)	(181)	103	119	(198)	(351)	207	224	(51)	(25)	8	17
Jaffa	411	379	319	348	462	438	415	428	350	315	206	254
Tel Aviv	939	966	918	928	951	981	969	968	926	953	871	890
Ramle	378	270	212	256	(436)	(348)	317	348	(298)	(194)	86	145
Lydda	291	207	161	198	(395)	(329)	271	310	(159)	(94)	50	80
JERUSALEM DISTRICT :												
Hebron	229	192	165	184	300	(326)	307	307	142	99	42	71
Beit Jala	(254)	(598)	299	337	(251)	(628)	(442)	(426)	(258)	(575)	(210)	272
Bethlehem	586	653	372	465	(610)	(706)	538	588	(558)	(601)	250	361
Jerusalem	737	780	642	683	745	832	779	781	728	727	507	583
Ramallah	(497)	(633)	343	420	(523)	(713)	(556)	566	(470)	(586)	188	309
NORTHERN DISTRICT :												
Tulkarm	(338)	(399)	247	267	(460)	(571)	429	466	(190)	(182)	65	110
Nablus	458	451	299	362	542	634	515	542	366	277	106	188
Jenin	(500)	(439)	292	356	(527)	(531)	(470)	491	(471)	(348)	(124)	224
Nazareth	548	591	450	493	(583)	(726)	607	621	(511)	(442)	301	366
Beisan	(327)	(270)	255	270	(410)	(373)	407	402	(223)	(148)	77	113
Tiberias	567	591	450	497	(620)	(695)	637	645	(510)	(500)	291	364
Haifa	541	561	579	570	596	620	660	644	483	494	480	483
Acre	548	451	345	400	(587)	(520)	443	481	(510)	(376)	224	308
Shefa 'Amr... ..	(519)	(452)	261	343	(636)	(555)	(457)	(516)	(358)	(338)	(100)	177
Safad	457	512	374	414	(493)	(668)	598	582	(411)	(367)	194	259

SUBSIDIARY TABLE No. IV.

Number of literate persons per 1,000 of urban population by age, sex and religion.

RELIGION	AGE IN YEARS	PERSONS				MALES				FEMALES			
		Four main towns	Other towns	Total urban	Rural	Four main towns	Other towns	Total urban	Rural	Four main towns	Other towns	Total urban	Rural
		3	4	5	6	7	8	9	10	11	12	13	14
ALL RELIGIONS	7 - 14	654	371	537	224	678	428	573	339	628	303	497	82
	14 - 21	672	385	568	210	714	504	640	323	630	273	496	86
	21 and over	626	261	497	181	716	409	612	285	531	125	381	83
	7 and over	638	304	516	194	709	428	609	302	564	183	421	83
MOSLEMS	7 - 14	324	295	307	164	391	367	377	288	231	207	219	11
	14 - 21	301	276	287	131	381	409	396	244	199	147	169	9
	21 and over	226	175	196	88	332	309	320	180	88	47	62	4
	7 and over	260	217	235	109	353	339	345	213	140	95	112	6
CHRISTIANS	7 - 14	726	594	669	472	745	618	690	585	706	566	646	343
	14 - 21	779	695	749	514	859	794	838	722	696	608	663	289
	21 and over	651	478	586	375	777	677	744	585	516	313	436	179
	7 and over	685	535	629	412	786	682	749	604	577	404	509	221
JEWS	7 - 14	872	681	857	925	887	(681)	871	946	856	(680)	843	901
	14 - 21	913	787	904	959	956	(854)	949	987	876	(728)	866	924
	21 and over	828	594	814	934	929	813	922	980	733	404	712	877
	7 and over	847	640	834	936	925	790	917	976	774	505	756	886

SUBSIDIARY TABLE No. V.

Number of those who attended a school per 1,000 of population by religion, sex and age period.

AGE IN YEARS	MALES				FEMALES			
	All religions	Moslem	Jews	Christians	All religions	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9
0 - 7	33	11	135	68	26	5	125	72
7 - 14	411	289	882	645	253	70	848	574
14 - 21	435	274	922	755	243	55	852	560
21 and over	388	201	876	649	187	17	695	355
7 and over	399	231	883	656	210	30	742	423

SUBSIDIARY TABLE No. VI. (a).

Number of those who have attended or have not attended a school per 1,000 in each age group by sex, religion, and years at the educational institution.

SEX	YEARS AT SCHOOL	AGE IN YEARS																				
		0 - 7				7 - 14				14 - 21				21 and over				7 and over				
		All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
MALES	TOTAL ...	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	0 ...	967	989	865	932	589	711	118	355	565	726	78	245	612	799	124	351	601	769	117	344	
	1 - 2 ...	30	10	122	64	174	154	212	279	50	53	27	67	38	41	19	53	68	68	52	96	
	3 - 4 ...	3	1	13	3	158	111	334	264	111	107	86	182	73	69	60	126	96	84	108	158	
	5 - 6 ...	...	...	...	1	61	22	242	86	104	70	187	202	76	49	142	128	77	46	164	130
	7 - 8 ...	...	...	...	...	16	2	84	15	86	29	285	155	72	20	224	111	62	17	209	99
	9 - 10 ...	...	...	...	...	2	...	10	1	53	12	193	117	63	13	192	138	49	10	163	108
	11 - 12 ...	...	...	...	...	...	...	...	...	21	3	95	22	28	4	99	46	21	3	82	33
	13 - ...	...	...	...	...	...	...	...	...	10	...	49	10	38	5	140	47	26	3	105	32
	FEMALES	TOTAL ...	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
		0 ...	974	995	875	928	747	930	152	426	737	945	148	440	813	983	305	645	790	970	258	577
		1 - 2 ...	24	5	111	67	88	33	233	252	20	7	40	64	14	3	39	42	28	9	69	80
		3 - 4 ...	2	...	13	4	101	30	330	235	47	18	99	144	28	6	83	75	44	12	125	112
		5 - 6	1	1	49	7	214	75	62	17	172	155	41	5	148	77	46	7	162	89
7 - 8 ...		...	...	...	...	13	...	63	11	74	8	291	115	47	2	189	73	45	2	184	69
9 - 10 ...		...	...	...	...	2	...	8	1	38	4	150	62	30	1	122	51	26	1	108	44
11 - 12 ...		...	...	...	...	...	...	...	...	16	1	71	16	15	...	61	21	12	...	53	17
13 - ...		...	...	...	...	...	...	...	...	6	...	29	4	12	...	53	16	9	...	41	12

SUBSIDIARY TABLE No. VI. (b).

Number per 1,000 of each sex in each age group who have attended or who are attending school by religion and by number of years at school.

SEX	YEARS AT SCHOOL	AGE IN YEARS																			
		0 - 7				7 - 14				14 - 21				21 and over				7 and over			
		All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MALES	1 - 2 ...	920	943	903	943	424	534	240	432	115	192	29	88	98	204	22	82	170	293	58	145
	3 - 4 ...	76	53	96	44	386	384	379	410	256	389	94	241	188	342	68	194	241	362	123	242
	5 - 6 ...	4	4	1	13	148	75	274	133	238	256	202	268	196	243	162	198	193	199	186	199
	7 - 8 ...	...	...	...	...	38	7	95	24	197	106	310	205	186	101	255	170	156	76	236	150
	9 - 10 ...	...	...	...	...	4	...	12	1	123	43	209	155	163	66	220	213	123	43	184	164
	11 - 12 ...	...	...	...	...	...	...	...	...	48	11	103	30	72	20	113	71	53	13	93	51
	13 and over ...	...	...	...	...	...	...	...	...	23	3	53	13	97	24	160	72	64	14	120	49
	FEMALES	1 - 2 ...	907	932	892	934	350	470	275	439	75	132	46	114	76	182	55	117	134	285	94	189
3 - 4 ...		89	63	105	58	400	418	390	409	179	322	116	257	151	337	120	211	209	366	168	265
5 - 6 ...		4	5	3	8	194	100	252	130	236	312	202	276	218	284	213	218	217	218	218	210
7 - 8 ...		...	...	...	...	50	12	74	20	282	151	342	205	249	108	272	205	212	79	248	163
9 - 10 ...		...	...	...	...	6	...	9	2	144	64	176	111	162	63	175	143	126	38	145	105
11 - 12 ...		...	...	...	...	...	...	...	...	61	18	84	29	78	18	88	60	58	11	71	40
13 and over ...		...	...	...	...	...	...	...	...	23	1	34	8	66	8	77	46	44	3	56	28

SUBSIDIARY TABLE No. VII.

Number of persons literate who have attended or who are attending school per 1,000 literate in each main age period by sex and religion.

AGE IN YEARS	MALES				FEMALES			
	All religions	Moslems	Jews	Christians	All religions	Moslems	Jews	Christians
0 - 7	782	887	738	768	772	836	765	749
7 - 14	955	949	974	927	955	929	980	911
14 - 21	984	974	998	983	985	981	994	980
21 -	983	969	997	979	980	935	993	945
7 -	977	964	993	970	976	948	991	949

SUBSIDIARY TABLE No. VIII. (a).

Classification and numbers of books published in Palestine during 1923 - 1931*.

BRANCH OF KNOWLEDGE	TOTAL			NEW PUBLICATIONS		NEW EDITIONS AND REPRINTS		Pamphlets, books etc. (5 pp. - 48 pp.)	
	Total	Original	Translated	Original	Translated	Original	Translated	9	10
1	2	3	4	5	6	7	8	9	10

(I) ARABIC.—(Complete from 1927—not necessarily complete prior to that year)

TOTAL	96	86	10	83	10	3	...	57	39
Politics	26	21	5	21	5	...	...	18	8
Literature	11	9	2	9	2	...	...	3	8
Text books	10	9	1	9	1	...	...	1	9
Theology	9	9	...	7	...	2	...	6	3
Law	5	5	...	5	...	...	...	...	5
Philosophy	2	1	1	...	1	1	...	...	2
Societies' publications	13	13	...	13	...	...	...	13	...
Miscellaneous	20	19	1	19	1	...	...	16	4

(II) ENGLISH.—(Complete from 1927—not necessarily complete prior to that year)

TOTAL	129	114	15	113	15	1	...	98	31
Agriculture	18	8	10	8	10	...	...	15	3
Politics	9	8	1	8	1	...	...	6	3
Law	5	5	...	5	...	...	...	...	5
Text books	5	5	...	5	...	...	...	1	4
Theology	4	4	...	4	...	...	...	2	2
Commerce and Trade	3	3	...	3	...	...	...	3	...
Literature	2	1	1	1	1	...	...	...	2
Societies' publications	64	62	2	61	2	1	...	54	10
Miscellaneous	19	18	1	18	1	...	...	17	2

(III).—HEBREW.

TOTAL	2,322	1,961	361	1,835	351	126	10	1,202	1,120
Literature	505	319	186	288	183	31	3	117	388
Youth and children's books	367	310	57	295	57	15	...	293	74
Theology and Judaica	270	263	7	215	6	48	1	61	209
Politics	101	93	8	89	6	4	2	78	23
Biographies and Memoires	94	87	7	85	7	2	...	41	53
Agriculture	80	76	4	75	4	1	...	49	31
Text books	77	68	9	60	9	8	...	66	11
Sociology ‡	67	42	25	42	25	...	...	26	41
History	55	39	16	36	15	3	1	14	41
Palestina	52	49	3	47	3	2	...	10	42
Zionism	48	36	12	34	10	2	2	14	34
Medicine	44	42	2	41	2	1	...	30	14
Philology	42	41	1	37	1	4	...	14	28
Law	27	21	6	21	6	...	...	10	17
Fine-arts	23	23	...	22	...	1	...	14	9
Philosophy	23	10	13	8	12	2	1	7	16
Education	19	16	3	16	3	...	...	6	13
Commerce and trade	12	11	1	11	1	...	...	12	...
Calendars and Almanacks	30	30	...	30	...	...	...	7	23
Societies' publications	337	337	...	337	...	...	...	290	47
Miscellaneous	49	48	1	46	1	2	...	43	6

*From October 1923—November 1931.

‡Includes statistical works (15 pamphlets, 3 books).

Prepared and published by the courtesy of the Jewish National and University Library.

SUBSIDIARY TABLE No. VIII. (b).

Classification and numbers of periodicals published in Palestine during 1923 - 1931*.

PUBLICATION	Total	Politics	Labour Federations	Satires	Children, Youth and Sport	Literature and Science	Philology	Theology	Commerce and Trade	Fine-arts and illustrated	Education	Agriculture	Medicine	Law	Miscellaneous
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(I).—ARABIC.															
TOTAL	39	15	2	...	2	9	...	3	2	1	...	...	...	1	4
Daily	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Thrice a week	1	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Twice a week	6	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Weekly	8	5	...	...	...	2	...	1	...	...	...	...	...	...	...
Fortnightly	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Monthly	10	...	...	...	1	6	...	2	...	...	...	...	...	...	...
Two-monthly ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quarterly ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yearly ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A periodic and single editions	10	1	1	...	1	1	...	...	2	1	...	...	...	...	3
(II).—ENGLISH.															
TOTAL	15	3	...	...	1	1	...	1	1	...	...	2	1	...	5
Daily	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Thrice a week ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Twice a week ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Weekly	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Fortnightly	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Monthly	2	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Two-monthly ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quarterly ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yearly	2	...	...	...	...	...	...	...	...	...	...	...	1	...	1
A periodic and single editions	7	...	...	...	1	...	...	1	...	...	...	1	...	...	4
(III).—HEBREW.															
TOTAL	332	27	98	43	40	30	14	13	8	6	5	4	3	2	39
Daily	5	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Thrice a week ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Twice a week ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Weekly	28	6	5	1	4	4	...	5	1	...	1	1	...	...	...
Fortnightly	9	...	1	...	2	...	2	...	1	2	...	...	...	...	1
Monthly	33	2	3	...	8	3	1	5	2	1	2	2	1	1	2
Two-monthly	8	...	1	...	2	1	...	...	...	...	1	...	...	...	3
Quarterly	9	...	...	...	1	2	2	...	...	1	...	1	1	...	1
Yearly	7	...	...	...	...	1	1	...	2	...	...	...	...	...	3
A periodic and single editions	233	14	88	42	23	19	8	3	2	2	1	...	1	1	29

*From October 1923—November 1931.

CHAPTER IX.—LANGUAGE.

180. In making plans for the census, consideration was given to the possibility of testing the growth of bi-lingualism and tri-lingualism in relation to the three languages Arabic, English and Hebrew. That statistics of this nature were desirable was not in dispute: the difficulty lay in deciding how far the return would be reliable. In the end it was decided merely to ascertain, as in 1922, what were the languages spoken in the country and the number of persons habitually using them. Introductory.

181. The instructions to enumerators were:—

“Enter the language which each person uses in ordinary daily life.
 “In the case of infants enter the usual language of the parents. In
 “the case of deaf-mutes at an institution for their training enter the
 “language of the medium of instruction, but if not at an institution
 “enter the usual language of the parents.”

The statistics are given in Table X, Volume II, and in the following Subsidiary Tables to be found at the end of this chapter:—

Subsidiary Table I.—The number and proportionate distribution of Jews using Hebrew, Yiddish, Español (Jewish dialect) in 1922 and 1931.

Subsidiary Table II.—Results of an internal census of the Jewish community in Palestine during the war, and taken as at 1916-1917.

182. It is not surprising that a wide range of languages in habitual use should be found among so small a population. Palestine is a centre of a variety of interests, each one of which considered separately is world-wide in its attractions, so that the population contains elements drawn from the quarters of the globe. General.

In general the statistics may be taken as reliable. Some doubt exists as to the unchallengeable accuracy in regard to languages habitually used by Jews.

At the census taken in 1922 Jews were encouraged to return Hebrew as their usual language. In 1931 propaganda was conducted by one section of the Jewish community to the end that all Jews should return Hebrew as their language, while a section of the orthodox sub-communities sought to encourage Jews to return Yiddish or Español (Jewish dialect) as their language. A certain feeling of discomfort must be experienced by students of the statistics in reflecting on the possibility that in neither censal year was there a completely truthful record of the habitual languages spoken by Jews. What the authors of propaganda of the type mentioned hoped to achieve is incomprehensible. Those, who are interested in the spread and complete revival of Hebrew as a language satisfying the needs of modern life, cannot be expected to derive satisfaction from returns of which the certainty is doubtful. Their real interest must lie in measuring the true growth of the inspiration derived from the ideal which they have set before their own people. Those, on the other side, who wish to preserve Hebrew as a language of liturgy and devotion, in which, as in a casket, is enshrined the crystal of their faith, must equally feel dissatisfaction in the possible dubiety of the census record. It is unfortunate that it should be necessary to point out that the interests of all concerned are best served by the truth and that, in future censuses, efforts should be concentrated on that aspect of the whole question.

183. Apart from the variety of languages spoken in Palestine, a variety that is artificial and not natural being the effect of the interests which Palestine has for the whole world, the principal interest in the matter is concerned with the revival

of Hebrew as the medium of the expression of life. Although the census statistics may be unreliable there are other grounds for supposing that the development of Hebrew among Jews in Palestine during the last ten years is remarkable, not only in its quantitative aspect as a vehicle of ideas, but also in its vital aspects, that is, in its adaptation to the needs of modern life¹. Another interest may lie in the fact that while the perceptual idea underlying a word, that is its denotation, may be identical in different languages, the conceptual idea, that is, the connotation may be different. The revival and development of a language, in general confined for centuries to liturgical and devotional expression, may, therefore, open new avenues of thought and research into the activities of life, provided that the development is natural and not too heavily weighted by artificial borrowing from the developed languages. On the other hand, while Hebrew may become the *lingua franca* of Jews, it is likely to remain for non-Jews a language the acquisition of which will only be necessary for certain types of scholars; so that Jews, engaged in the ordinary affairs of the world, will probably be compelled to maintain their honourable and justified reputation for poly-lingualism. This observation is realized by the Jews in Palestine since, in most Jewish schools, some Arabic is taught to enable the members of the coming generation to converse freely with their neighbours, and, in many schools, opportunity is given for learning at least one European language. The difficulty of reconciling the claims of a curriculum, such as educationists would normally approve, and the claims to be acquainted with languages, other than that of the medium of instruction, presents a problem demanding sympathetic interest.

Another phenomenon which deserves attention is the growth of Hebrew as a secondary language among Arabs. No measure of this growth is given by the statistics which relate only to the languages in habitual use. The traveller through rural Palestine, however, will not fail to notice that in the sphere of economic activity, for example in orange cultivation and in motor transport to and from Jewish villages, local Arabs are finding it advantageous to converse freely with their Jewish neighbours in Hebrew. Arabic and Hebrew, being of the Semitic family, have definite affinities, and it appears that those Arabs, who find its use of economic advantage, learn quickly to speak Hebrew correctly. Parallel with this special bi-lingual development is the movement among both Arabs and Jews to acquire English as a secondary language: this movement finds expressions among the Arabs in urban centres, and among Jews in both the urban and rural populations.

Statistics of languages habitually used by Jews.

The principal languages in habitual use among Jews are Hebrew, Yiddish and Español (Jewish dialect). The Subsidiary Tables at the end of this chapter reveal the changes in the proportion of those using these languages in 1922 and 1931 according to the census returns of those years, and a further comparison is made with the linguistic results of an internal census of the Jewish community taken during the war.

Two interesting language returns.

184. Two interesting returns are Aramaic (Targum) and Basque. Aramaic appears to be habitually used by 35 Jews and Basque by two Christian males. Presumably both sets of persons are bi-lingual. Aramaic was the "natural" language of Syria and Palestine for very many years and it still survives principally for liturgical and devotional purposes in a small number of eastern Jewish communities. The language is of interest to Christians as being the usual language of the founder of their religion.

Basque is a curiosity among languages in that its origin is unknown. A suggestion has been made that it is the developed survivor of the speech used by man of the Upper Palaeolithic Age.

¹ The importance of this may be judged from the following illustration. I have been told that some Jewish children in pre-war Palestine, brought up in households where Hebrew alone was spoken, suffered emotionally and intellectually, because the development of Hebrew had not kept pace with the development of the human being. Twentieth century children were unable to find complete self-expression in language adapted to the needs of the fifth century B.C. and suffered, as children will, when not able to release themselves through the extravagances of speech habitual to their age. Language is born of human laughter and tears, and developing civilization has greatly extended the gamut of the emotions.—E.M.

SUBSIDIARY TABLE No. I.

A.—Number of Jews using Hebrew, Yiddish, Español (Jewish dialect) in 1922 and 1931.

	PERSONS		HEBREW		YIDDISH		ESPAÑOL (Jewish dialect)	
	1931	1922	1931	1922	1931	1922	1931	1922
PALESTINE ...	174,610	83,794	165,488	80,396	4,694	1,946	865	357
Jaffa ...	7,209	5,087	5,787	} 19,498	296	} 356	136	} 49
Tel Aviv	45,568	15,065	43,906		1,054		113	
Jerusalem	51,222	33,971	47,950	32,341	1,429	999	481	174
Haifa ...	15,293	6,230	14,687	5,683	457	332	40	39

B.—Number of Jews per 1,000 using Hebrew, Yiddish, Español (Jewish dialect) in 1922 and 1931.

	HEBREW		YIDDISH		ESPAÑOL (Jewish dialect)	
	1931	1922	1931	1922	1931	1922
PALESTINE ...	948	959	27	23	5	4
Jaffa ...	} 942 { 803	} 968	} 26 { 41	} 18	} 5 { 19	} 2
Tel Aviv ...							964	23	2
Jerusalem ...	936	952	28	29	9	5
Haifa ...	922	912	29	53	3	6

The absolute and the proportional statistics for other languages are not shown.

SUBSIDIARY TABLE No. II.

Results of an internal census of the Jewish Community in Palestine during the war and taken as at 1916 — 1917.

LOCALITY	USUAL LANGUAGE SPOKEN BY THE JEWS IN DIFFERENT LOCALITIES							
	Persons	Hebrew	Yiddish	Espanol (Jewish dialect)	Arabic	French	Other languages	Not recorded and children less than one year of age
TOTAL PERSONS ...	32,485	14,144	10,025	1,180	4,393	132	403	2,181
Jaffa ...	4,117	962	1,133	378	904	49	30	661
Tel Aviv ...	2,192	1,011	630	32	62	17	111	329
Haifa ...	1,406	177	353	22	813	6	11	24
Tiberias ...	3,066	1,822	1,065	4	125	8	5	37
Safad ...	2,688	135	1,783	5	628	2	18	117
Hebron ...	757	...	218	424	42	...	...	73
Colonies ...	15,100	8,224	4,593	301	965	50	238	729
Workers' groups ...	1,799	1,100	250	12	363	...	17	57
Yemenites in colonies ...	1,360	713	...	2	491	...	...	154
Per 1,000 ...	1,000	436	309	36	135	4	13	67

CHAPTER X.—INFIRMITIES¹.

GENERAL OBSERVATIONS.

The infirmities recorded.

185. Information was collected regarding the existence and prevalence of the following infirmities, namely, insanity in an active form as opposed to idiocy or feeble-mindedness², blindness of one eye, total blindness, total deafness, and deaf-mutism. The instructions to enumerators were:—

“ If any person is insane enter ‘ Insane ’. If any person is blind of one eye enter ‘ Blind, one ’. If any person is totally blind, enter ‘ Blind, two ’. If any person is totally deaf enter ‘ Deaf ’. If any person is both deaf and dumb enter ‘ Deaf and dumb ’. If any affliction dates from birth so state, *e.g.* ‘ Blind, two, birth ’.”

186. The method of tabulation adopted was similar to that adopted for all the census information, except that special slips were prepared for persons enumerated who returned one or more of the infirmities named. The special slips so prepared were kept distinct from the general slips on which all remaining items of information were recorded for the population, and formed a discrete record of a “ universe ” of the afflicted persons within the settled population, no record of infirmities having been taken in respect of the nomadic population. The reason for preparing special slips for infirmities lies in the fact that, in comparison with the number of entries on the census schedules, the number of entries concerning infirmities is small ; entries that are few in number may be overlooked under the pressure of work in preparing general slips for all other entries in the census

¹ After I had written this chapter I sent the draft to Dr. J. Hermann, Neurologist and Alienist, to Dr. J. C. Strathearn, C.B.E., M.D., Ophthalmic Surgeon, Warden of the Order of St. John of Jerusalem, and to Dr. M. Salzberger, Specialist in Ear and Throat Affections, all of Jerusalem, inviting them, if they thought fit, to send me special articles for inclusion in this chapter. They decided that that was not necessary but that they would assist me in other ways.

Dr. Hermann was so good as to send me his observations on the subject of mental disorder. Some of his observations led me to amend my draft in three places. The remaining observations are included in small type within the section of this chapter relating to insanity.

Dr. Strathearn decided that it was necessary for him to conduct a proper clinical examination of eye diseases in a dozen villages which were chosen at random by Dr. Harkness of the Department of Public Health and by myself. The examination has a two-fold object : first, to check the reliability of the census declarations as to blindness ; and secondly, to obtain a body of information derived from a sample as to the correlations between the various forms of ophthalmic diseases and the social and economic conditions of village life. The great amount of information which Dr. Strathearn accumulated will prove of the utmost value to ophthalmologists, government departments and to social workers. The crude results of his examination are given in a note appended to the section of this chapter concerned with blindness ; but it was not possible to analyse the exact diagnoses and the social material collected in time for the inclusion of scientific inferences in this Report.

Dr. Salzberger also submitted some notes which are included in the chapter at the end of the sections concerning deafness and deaf-mutism. These notes were submitted after the Report had gone to Press and I have not been able to comment on them.

Readers of this chapter will wish to join with me in expressing gratitude to these three doctors who spared no pains to inform this chapter with medical experience. —E.M.

² Dr. Hermann observes—“The definition ‘ insanity in an active form as opposed to idiocy or feeble-mindedness ’ cannot be maintained. In my opinion, one of the radical mistakes which permeate statistics is the constant attempt of the compiler to distinguish between these two forms, although, from the clinical point of view, “ idiocy or feeble-mindedness is quite capable of producing a condition of violent excitement due, in part, directly “ to this disease, in part, to combination with other common mental diseases (Hebephrenia) etc.” On the other hand laymen, lacking the knowledge which enables the alienist to deny an essential distinction between these forms of mental disorder, habitually make the distinction and use different words for the different complaints as if these differed either in kind or in perceptible degree. In nosology there is no essential difference, but in ordinary life plain men detect some difference which is usually determined by degrees in the violence of emotional excitement. It may be presumed, therefore, that the returns of insanity at the census are of persons who display the most violent forms of emotional excitement and not of merely passive subnormal victims of mental instability.—E.M.

record. In order, therefore, to prevent the failure of transferring entries as to infirmities from the schedules to the slips, a separate slip for infirmities was prescribed, and was prepared by a small special staff having no other duty at the time. It should also be observed that one slip was prepared for each infirmity declared by an afflicted person. There were thus prepared in respect of each person suffering more than one affliction a number of slips equal to the number of infirmities declared by that person. Hence the resulting statistics are, in the first place, statistics of cases rather than of persons, the afflicted population being somewhat smaller than the total number of afflicted cases which that population declared.

The justification for this course lies in the fact that a person afflicted with, say, blindness and insanity, presents two problems of social and economic character in his two-fold capacity as an individual suffering from insanity and also from blindness. He must, therefore, be a unit in the statistics of blindness and another unit in the statistics of insanity. In the statistics of the infirm treated as one whole, however, such a person appears only once as a unit in the afflicted population, and then under the infirmity that appears to have the most important social and economic consequences.

187. The statistics of infirmities are embodied in Table XV, to be found in Volume II of this Report. At the end of this chapter will be found proportional statements showing :—

Reference to
the statistics.

- I. Number of persons afflicted per hundred thousand of population.
- I(a). Number of persons afflicted per hundred thousand of population. Study of certain sub-districts in the Southern district.
- II. Number of persons afflicted from birth per hundred thousand of population.
- II(a). Number of afflicted from birth per thousand afflicted.
- III. Number of persons afflicted per ten thousand of each age period. All religions.
- IV. Number of persons afflicted per ten thousand of each age period. Moslems.
- V. Number of persons afflicted per ten thousand of each age period. Jews.
- VI. Number of persons afflicted per ten thousand of each age period. Christians.
- VII. Proportion per mille of each sex by conjugal condition and infirmity.
- VIII. Distribution of the infirm by age per mille afflicted of each sex.
- IX. Number of afflicted females per mille afflicted males in certain age groups.
- X. Distribution of the blind of one eye and totally blind per mille afflicted of each sex by age. Moslems.
- XI. Blindness in Gaza sub-district.
- XII. Blindness in Gaza sub-district.

188. It must be admitted that the statistics of infirmities are unreliable. Most countries have either abandoned, or are in the process of abandoning, attempts to elicit, by means of a general census, information concerning afflictions that affect the social and economic welfare of the people as a whole. That this has been decided in the countries where the standard of general intelligence is high, and where elementary education is compulsory, is, in itself, a drastic indication of the need for caution in the interpretation of statistics of infirmities wherever these may still be compiled through the agency of a general census. In Palestine, the danger is greater in that the people are in large part illiterate and some of the enumerators who made the returns were not highly educated men, so that there must necessarily have been errors of diagnosis. In one country an attempt was made to overcome errors of diagnosis by sending physicians to examine those persons who had returned blindness at the census¹. While such a method

The accuracy
of the return.

¹ Switzerland.—E.M.

eliminates the coarser errors, it still admits errors due to variations in the diagnoses of different physicians. Moreover, diagnosis tends to become clearer and sharper with the progress of years, so that the statistics of successive censuses become not strictly comparable, unless some means is devised whereby the statistics of the earlier diagnosis can be transferred and recast to conform with the greater precision of the statistics of the later diagnosis. Apart from the expense of such refined methods, it seems questionable whether, having once obtained a general survey, however inaccurate, of the principal afflictions of a population through the agency of a general census, it is worth while to continue at future censuses the record of infirmities. There was distinct advantage in placing infirmities among the *quaesita* of this census, since it is possible to compare the resulting statistics, with all their inaccuracies, with statistics, inaccurate to the same order, of other countries during the past decades. By this means a general position can be assigned to the population of Palestine, "laced", as it were, with its afflictions, among populations that have been treated in a similar manner. A conclusion, for instance, that, in some respects as regards infirmities, the population of Palestine is in a better way than the population of some other territory, or in a worse way than the population of a third territory, is, at any rate, of considerable interest: it may be positive value, but the value of such a conclusion can only be measured in terms of improvement; and improvement in respect of a social evil depends not on the discovery of the magnitude of the evil but on the resources at the disposal of the people to overcome it. These resources differ so fundamentally as between countries that the experience of one country may not necessarily be of utility to another country. Another and perhaps more useful advantage in having statistics of infirmities at this census is the assistance they give in assigning an order of importance of the works to be done to meliorate the conditions revealed by those statistics. Large sums are expended annually in Palestine by public authorities, by private institutions and by charitable people with the objects of alleviating the distress of the infirm, curing them and preventing growth of the evils. Each special interest attaches primacy to its own claims, but, until those claims have been examined in relation to the population as a whole and the subjective declaration of that population as to its own needs, it is not possible for public authorities and private institutions fairly to assess the importance of their work in relation to the satisfaction of the requirements of the people. Hence, the claim to primacy is no more than a claim, the validity of which can be tested by the criterion of the statistics. However inaccurate those statistics may be, they will be found to give a direct and unmistakable indication of the importance of the respective infirmities in the life of the people. If acquaintance with the information revealed leads to an adjustment of funds, public and private, available for the care of the hopelessly afflicted, the cure of those who are curable, and the prevention of the growth of the evils, an adjustment conforming with the distribution of the ills, it will have been well worth while to have included infirmities among the *quaesita* of the census, even though the method, without other means, is now generally condemned.

189. If the yield of information as to social infirmities obtained through a general census is to a large extent unreliable, the question arises, How can reliable information on what are obviously vital matters be obtained? The answer is that the method of special inquiry should be adopted, either by itself, or as an adjunct and corrective to the information obtained through the agency of a census. Under this method, representative samples of the population are taken: samples by locality, by strata composing the social structure, by community and by any other classification that appears to offer valuable information. The application of refined statistical methods to samples exhibiting or not exhibiting the phenomena under investigation yields, under proper safeguards, information of a high degree of accuracy. It would be out of place to give here a description of the statistical methods that can be employed in these inquiries, but it is important that the information yielded by the census should not remain a bare record: research by special inquiry should be made in every aspect of the phenomena indicated by the

census statistics. Much work of this character is done in Europe and America by voluntary agencies equipped as to personnel and material on statistical foundations. Physicians, scientists, observers of all kinds, collect the information from the samples of population selected by the central agency: that information is compiled in significant form and then treated under the statistical rules applicable to the problem, so that, finally, results are obtained which may be asserted with a high degree of confidence of the whole class of population involved in the inquiry. It is hoped that similar efforts, even on a small scale, will be made in Palestine, so that the statistics given by the census shall be more than a matter of interest, but shall be a matter of value, in that the research that should follow will give such precision to the information that practical benefits to the people as a whole may be forthcoming.

190. Turning back to the unreliability of census statistics it is possible to indicate without difficulty the probable errors of diagnosis by laymen.

In the case of mental disorder there is no clear unmistakable division between sanity and insanity. Many persons whose mental disorders may be periodic, or whose hallucinations and loss of judgment and self-control may not be easily apparent, might be regarded by some observers as sane and by others as insane. The word used in Arabic connoted usually the actively insane, and no educated Arab would have mistaken the meaning: but to the uneducated Arab it is possible that the word may include within its meaning imbecile or idiot or half-witted. The word used in Hebrew is generally understood to connote only active insanity; and it is improbable that many imbeciles are included in the statistics of Jewish insane. On the other hand, there may be a greater reluctance on the part of Jewish householders to declare the insanity of members of their households particularly since under present conditions in Palestine it is impossible to provide facilities for the treatment and skilled care for more than a very limited number of mental patients¹.

Congenital deaf-mutes may also have been returned as insane, while old people suffering from deafness may have been included in the returns for deaf-mutes, particularly if their articulations of speech have been dulled by inability to hear the sounds which they themselves make in speech. In deaf-mutism, again, there is to be found as a source of error the pitiful and comprehensible emotions of parents who will regard, so long as hope persists, the affliction of their young children as no more than retarded development.

The statistics of blindness whether of one eye or of both are perhaps the least unreliable of all the statistics of infirmities: yet, even here, total blindness requires specific definition in relation to economic activities, and it is not within the competence of the untrained layman to assign sufferers to classes in which blindness is definitely measurable. The blind who see "men as trees, walking" are certainly blind, but a whole range of experience, sensory and economic, lies between them and those whose blindness is that of perpetual darkness. Yet persons of both types were justified in returning themselves as blind for purposes of the census.

Another possible cause of error is to be found in the possible reluctance of the male householder to give knowledge of the physical defects of the women of his family. On the whole, this reluctance is not marked in the statistics, but the possibility of its existence cannot entirely be ignored.

However discouraging these introductory remarks may be, it must not be forgotten that the experience of Palestine is parallel to experience elsewhere in the world; and it should occasion no surprise that an accuracy, not attainable in countries, with the advantages of literacy of population and a wealth of trained observers, cannot be asserted of the statistics given for Palestine.

¹ Dr. Hermann finds that this reluctance is common to all classes and all communities in Palestine particularly when the afflicted are still young enough for employment or marriage.—E.M.

The statistics generally.

191. The total number of persons suffering from each infirmity is noted in the following table :—

Infirmity	Number afflicted
Insanity	809 <i>83</i>
Blindness of one eye	19,076 <i>1,968</i>
Total blindness	8,172 <i>843</i>
Total deafness	1,541 <i>159</i>
Deaf-mutism	419 <i>43</i>
Total	30,017 <i>3,096</i>

Note :—The figures in italics represent the proportions per 100,000 of the population.

There being no previous census record of infirmities, it is not possible to indicate whether there has been an increase or a diminution in the number of persons afflicted and in the proportion of persons afflicted to the whole population. Physicians have, on occasion, suggested that the incidence of certain infirmities is increasing. It is sometimes forgotten, however, that the growth of rapid means of transport, the enlargement in the size and numbers of institutions giving treatment and providing curative measures, the increase in the numbers of doctors, all cause particular infirmities to become more obvious, in that cases in increasing number are brought continuously under notice. The physician sees ever greater numbers of patients, and the range of his influence extends to more remote localities. The appearance of an increase in incidence of such infirmities is almost unavoidably given to him : but it would be unfair to suggest that such a conclusion can be asserted validly. The point may be illustrated by the converse ; if there were no physician there could be no patients : but it may not be inferred from the absence of physicians and patients that there is no affliction. Even if the actual number of persons afflicted be increasing, the total population may be increasing at a higher rate, in which case the incidence of the infirmities is diminishing.

It follows that, in the present state of statistical knowledge in Palestine, it is unsafe to make inferences as to the progress or decline of infirmities, at any rate so long as these inferences are not subject to the rigid analysis of large numbers of cases under strictly controlled diagnostic tests, having the nature of the special inquiries to which brief allusion has been made in paragraph 189 above.

Relative prevalence of each infirmity.

192. Blindness of one eye accounts for nearly 64 per cent. of the total number of afflictions returned, while the proportion of those who returned themselves as totally blind is 27 per cent. Eye disease therefore in one form or the other is responsible for over 90 per cent. of the infirm population as this is defined for census purposes. About 2.5 per cent. of the total number of afflicted persons are insane, 5 per cent. deaf, while deaf-mutism contributes just over 1 per cent. The proportions vary in different parts of Palestine as will be seen when each infirmity is discussed in detail.

The general conclusion to be drawn is that, of the infirmities having a direct effect on the social and economic life of the people as a whole, blindness, whether partial or total, is incomparably the greatest adverse factor, and demands a concentration of attention towards prevention and cure of eye diseases at the expense, if need be, of the attention given to the other infirmities of social importance in Palestine at the present time.

INSANITY.

193. The statistics of the insane are intended to include only those who suffer from the more active forms of mental derangement, or insanity properly so called¹. Even in Europe there is difficulty in distinguishing in all cases between the insane in the strict sense of the term and the weak-minded: and the difficulty must necessarily be greater in Palestine. Imbecility, is, however, usually a congenital defect: and, as the age statistics show that the proportion of persons returned as insane in the lower ages is very small and, as the number of those who have been returned as insane from birth is also small, there is some indication that the statistics do not include many persons who would properly be classified as imbeciles. Moreover, the weak-minded are often also deaf and dumb, and, if any of them had been shown as insane, a larger number would have been found suffering from both infirmities than is actually the case, there being only four persons returned as afflicted with the two infirmities together.

The following table gives the number of insane persons per hundred thousand in various countries in Europe and in Palestine and also in certain religious communities in Europe and the three principal communities in Palestine:—

(a) NUMBER OF INSANE PER 100,000 OF POPULATION.

(Idiocy included usually taken as about 10 per cent. of the insane)

Country	Year	Both sexes	Males	Females
Germany... ..	1925	331	346	315
England*	1911	449	437	460
Scotland*	1911	496	507	487
Ireland	1911	648	681	615
Denmark	1920	344	345	343
Sweden	1920	446	473	419
Norway	1920	572	569	576
Finland	1900	311	329	294
Estonia	1922	311	318	305
Latvia	1920	190	213	170
Cyprus	1921	124	153	96
Egypt	1927	67	93	43
Palestine	1931	83	93	73

(b) NUMBER OF INSANE BY RELIGION PER 100,000 OF POPULATION.

Prussia	1895			
Catholics			270	231
Protestants... ..			278	246
Jews			534	462
Baden	1925			
Catholics		396		
Protestants... ..		391		
Jews		603		
Hungary†	1890			
Catholics }				
Protestants }		137		
Jews		191		
Palestine	1931			
Moslems		65	79	51
Christians		109	124	95
Jews		141	134	151

*Feeble-minded included.

†Quoted by Dr. A. Ruppín: *Soziologie der Juden*, Band I, Berlin 1930.

194. From the preceding paragraph it will have been apparent that Palestine compares very favourably with European countries. In part this may be due to the completeness of returns in countries where the majority of the mentally

Comparison
and
distribution
among the
communities.

¹ See footnote to paragraph 185 above.—E.M.

afflicted are confined in mental homes. The principal reason, however, lies in the fact that mental disorder is a disease of modern civilization. The noise of industrial countries, the general struggle not only for a better condition of life but for bare existence all play their parts in destroying the balance of the nervous and hence of the mental system. The individual organism known as a person is continually adjusting itself to these conditions building up defences most appropriate to the forms of the attack of its harmony. On occasion, this adjustment, seldom perfect, is inadequate and the defences break down leaving the organism helpless against the assaults which disturb the equipoise of its natural existence. It has been said¹ that if a dog, endowed as it is with most acute hearing, were also endowed with the mental equipment of a man it would be dead in a fortnight in an ordinary European city. In other words there would be a complete, and not a partial, destruction of that equipoise which is the necessary condition of a normal existence. This vivid example of one of the effects of modern life leads naturally to a consideration of the statistics bearing on the structure of the population of Palestine composed as it is of strata of differing traditions and standards of life². The comparative figures are repeated below. The proportions among hundred thousand of both sexes of each of the main religions are 65, 109, and 141 for Moslems, Christians and Jews respectively. It should be noted that the Christian population contains ten thousand foreigners and it is certain that the proportion of insane among the local or Arab Christians is larger since, few, if any, of the European Christians are insane. The figures indicate that Moslems, therefore, who form the rural population, practically in entirety, among Arabs, live a life of comparative tranquillity engaged in agricultural pursuits which, while not entirely dissociated from anxiety in times of drought or natural phenomena of destructive character, have none of those disturbing factors present in the life of industrial countries.

The local Christian community on the other hand is composed of persons who are not, on the whole, followers of the tranquil life of the fields; and it may be inferred that their gradual withdrawal from agricultural occupations and their increasing participation in civilization with its variety of toxic influences are partly responsible for the higher proportion of insanity among the Christians.

The Jews coming whether from east or west, have, for long years, been subject to special disturbing influences of social origin; and, in addition to those influences, regard must be had in the case of Jews from European countries to the distortions in personal life which arise from the conditions of modern civilization and are common to all who live in those countries whether they be Jews or not. From the preceding paragraph it will be seen that the proportion of Jews insane in Palestine is well below the proportions in Prussia, Baden and Hungary; and it may be assumed, with some confidence, that the comparison between most Jewish communities in Europe and in Palestine will reveal the same phenomenon.

In the Immigration Ordinance 1925 it is provided that permission to enter Palestine shall not be granted to any person to whom the Ordinance applies who is a lunatic, idiot or mentally deficient. It may be asserted with confidence that no persons seeking lawfully to enter Palestine in order to settle permanently as immigrants are admitted if found to be insane at the time of arrival at the

¹ I believe that this was said by Professor A. M. Low speaking at Oxford in 1931 on certain aspects of town planning; but I have been unable to find the reference.—E.M.

² A somewhat different and, in any case, more precise view is stated by Dr. Hermann in the following terms: "On the subject: Mental disease as a sickness of modern civilization. Here the situation is much complicated. "On the one hand, there is, undoubtedly, a connexion between progressive culture and civilization and the spread of psychoses, but, on the other hand, this connexion is frequently shown only indirectly through injury to the embryo. With advancing culture, late marriages and the introduction of poisons (alcohol, morphin, cocaine and, above all, syphilis) are more frequent. I am convinced that no-one becomes insane, as a direct consequence of his peculiarly difficult struggle for life, unless he is born with a pre-disposition to madness. "One thing is certain, that, with increasing civilization, the number of so-called functional nervous disorders is substantially increased, and, therefore, again indirectly influences the deterioration of the hereditary proportion in the next generation."—E.M.

ports. Periodic insanity cannot, of course, be controlled by examination at the ports of entry. Since insanity among Jews is considerably smaller in proportion than insanity among Jews in other countries, from which immigrant Jews have come, the statistics may indicate that the conditions of life in Palestine give to Jews a greater sense of personal harmony than has been their experience elsewhere. Mental equipoise in their case may be less liable to disturbance despite the undoubted difficulties arising from the difference of climate as between Palestine and their countries of origin, and the drastic changes of their occupational and social lives. Such an inference cannot be made from the statistics for Palestine. Before such a conclusion can be drawn, it is necessary to examine the populations in the mental homes in European countries and determine the proportions at identical ages of insane Jews to the Jewish populations depending on those asylums, and to show that, at each stage of life, the proportions in Palestine are smaller than they are in the several countries concerned. Moreover, immigrants into most countries come from among the healthier people and the stronger stocks ; so that, in so far as any *a priori* expectation is justified, it would be a matter of surprise if the proportion of insane in a community maintained by immigration were as high as in the populations from which the immigrants were drawn.

Dr. Hermann observes on this point in the following terms :—

“ I agree entirely with the conclusions about the Jews, except for the remark that, in general, immigrants into a colonial country bring with them special mental reserves of strength. That is only true in part ; in general, the human material of colonizations consists of psychically unstable elements, and material of indubitably high value, as is known to the psychiatrist. I need only mention the transportations to America, Australia or elsewhere, once customary, of people of good family who had committed some offence, or had, for other reasons, become a family burden. Furthermore, in my opinion, a distinction must be made between indigenous Jews and newcomers and between Sephardic-oriental Jews and such Ashkenazim as come from Europe. The proportion of Ashkenazic Europeans is undoubtedly much greater than that of indigenous Jews for the reasons emphasized by the compiler. Moreover, it should be borne in mind that colonists are mostly young people between the ages of 18-25 years, an age at which, according to experience, the most serious and commonest mental disease (*dementia praecox* or *Schizophrenia*) usually breaks out¹. ”

195. The amount of insanity varies in different parts of Palestine. Map No. 27 shows the prevalence of the infirmity in the country. The proportions in the districts are for the Southern district 52 per hundred thousand persons, for Jerusalem district 136 per hundred thousand persons and for the Northern district 74 per hundred thousand persons. The proportions for Jerusalem district and the Southern district are fictitious in the sense that the statistics include the inmates in mental homes in the country, the Government Mental Home at Bethlehem and the Ezrat Nashim Home for Jewish insane at Jerusalem ; Bnei Brak Mental Hospital and Nve Shaanan in the Jaffa sub-district. The numbers of inmates returned at these institutions at the census is given below :—

Local distribution

Institution	Persons	Males	Females
Mental Home Bethlehem	78	46	32
Ezrat Nashim	76	27	49
Bnei Brak Mental Hospital	21	8	13
Nve Shaanan Mental Hospital	3	1	2
Total	178	82	96

¹ Dr. Hermann and I are not in conflict on the point. The implication of his observation is that the control of the entry of mentally disordered immigrants is not as stringent as it should be, having regard to the terms of the law.—E.M.

PALESTINE

INSANITY

- REPRESENTS
45-49 INSANE PER 100,000 PERSONS
- 54-60 " "
 - 67-70 " "
 - 77-80 " "
 - 92-104 " "
 - 143 " "
 - 566 " "

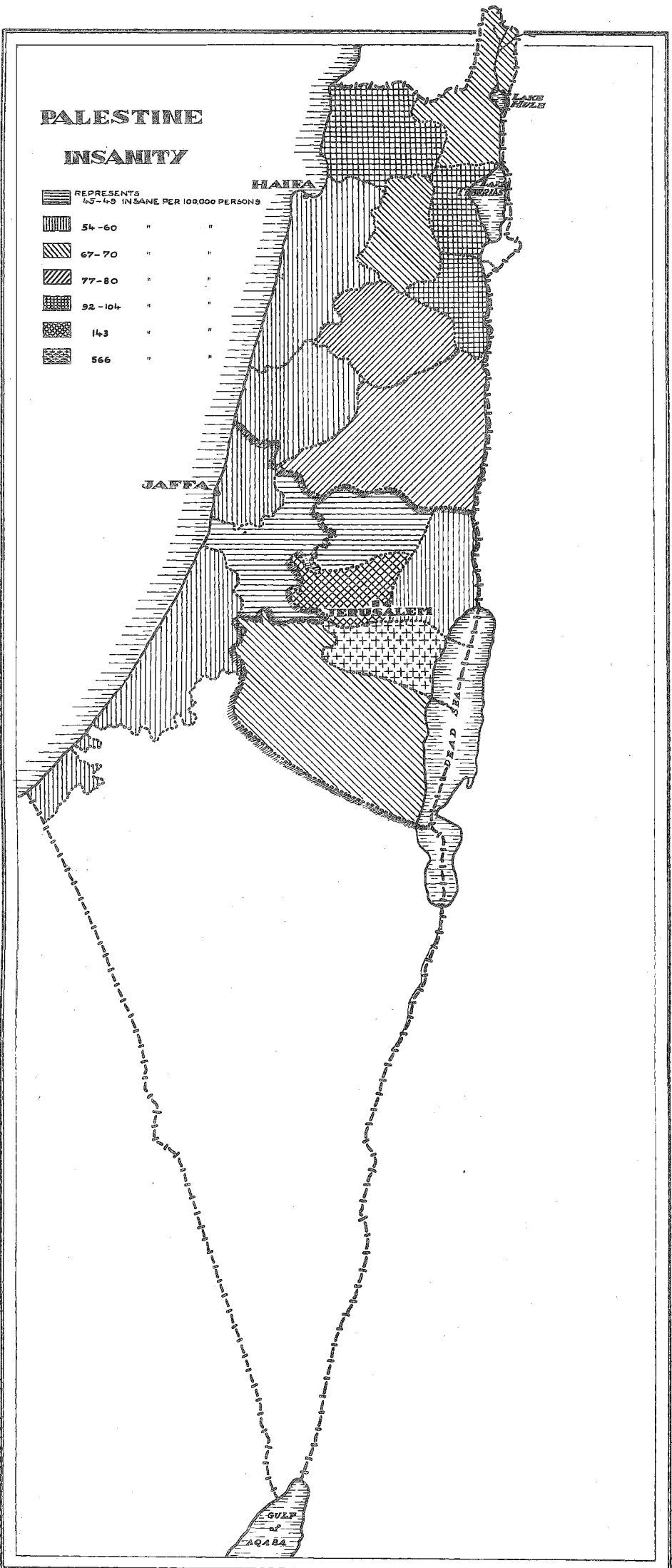
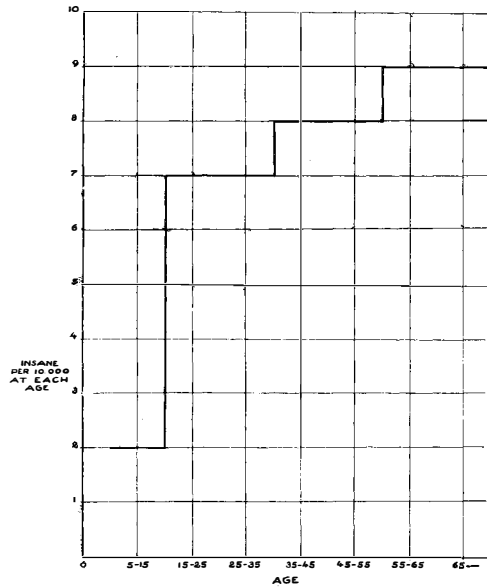


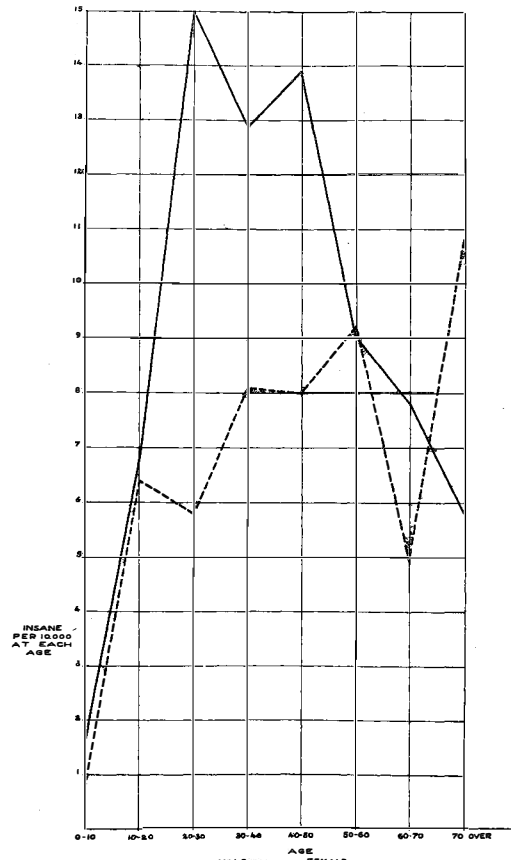
DIAGRAM No. 27

INFIRMITIES - MOSLEMS
INSANITY
FEMALE



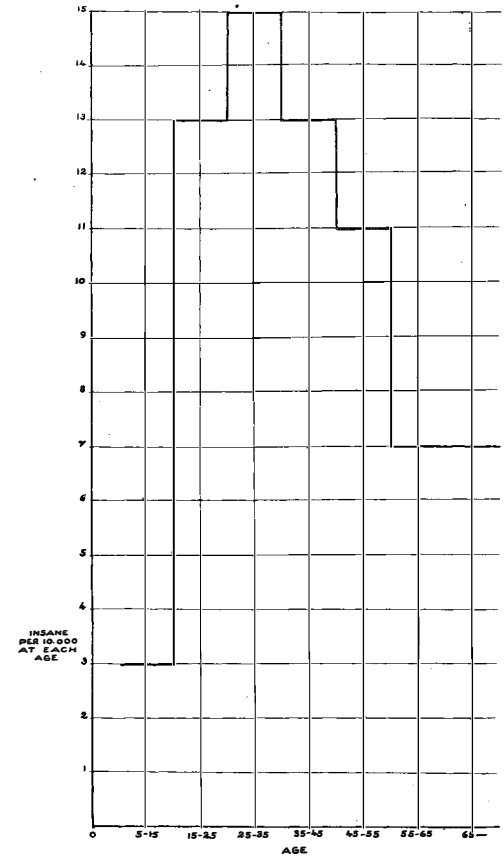
AGE	FEMALE
0-5	-
5-15	2
15-25	7
25-35	7
35-45	8
45-55	8
55-65	9
65+	9

INFIRMITIES - MOSLEMS
INSANITY



AGE	MALE	FEMALE
0-10	1.6	0.7
10-20	6.8	6.4
20-30	18.0	5.8
30-40	18.9	8.1
40-50	13.9	8.0
50-60	3.0	9.2
60-70	7.8	4.9
70+	5.8	10.8

INFIRMITIES - MOSLEMS
INSANITY
MALE



AGE	MALE
0-5	1
5-15	3
15-25	18
25-35	18
35-45	13
45-55	11
55-65	7
65+	7

DIAGRAM No. 28

An examination of the records of the two principal homes show that the inmates come from all parts of the country and only a proportion are a fair charge, as it were, on the populations of the two districts. It will be observed that less than 22 per cent. of the actually insane in the country are under restraint in the only public and the only private asylums in the country.

**Insanity by
age and sex.**

196. The proportion of insane persons of both sexes per ten thousand persons of each age period is given for Moslems and Jews in diagrams Nos. 28 and 29 based on Subsidiary Tables IV and V.

No diagram has been given for Christians, first, because the numbers of insane of the Christian population are too small to give a high degree of reliability and the possible inaccuracies make graphical representation a source of misconception unless the tables are studied with great care, and secondly, because the Christian community contains over ten thousand foreigners, practically all of whom are mentally healthy. It may be objected that the degree of heterogeneity among the Jews is higher than among the Christians, and that, therefore, a principle of exclusion should be applied to both communities. On the other hand, while it is known that Christians from different countries exhibit different social phenomena, very little is known as to the social phenomena of Jews as Jews. There are those who affirm, on slender evidence, that a common racial origin or a common culture founded on a common creed may be responsible for a similarity of social phenomena observed in different local Jewish communities. An equally dogmatic school believes that an ultimate analysis of the Jewish social complex will prove that local Jewish communities in the world exhibit differences parallel with the differences between the various populations of which those communities form respective parts. The question can only be solved by consideration of purely Jewish statistics in relation to the larger groups of statistics of the social characters of the various populations in which Jews are found. There is, therefore, a special interest attaching to the statistics of infirmities of Jews in Palestine however incomplete and uncertain the original data may be.

The very small proportion of young children of all communities who are insane is partly due to the fact that the affliction generally comes on in later life, and, partly to the reluctance of parents to recognize the existence of the infirmity in their children until it is established beyond all possibility of doubt¹.

**Insanity by
conjugal
condition.**

197. The following table gives the distribution of the insane by religion per ten thousand of each sex in each conjugal condition :

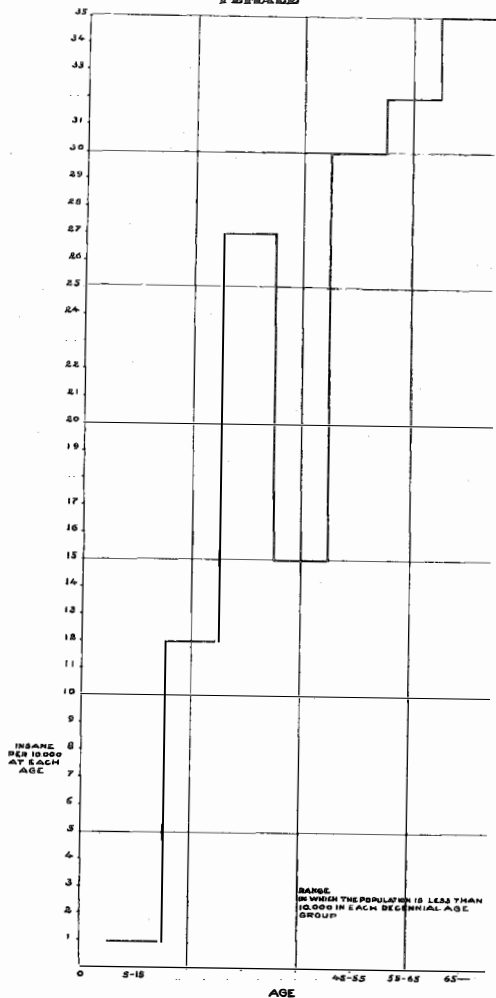
NUMBER OF INSANE PER 10,000 IN EACH CONJUGAL CONDITION BY RELIGION AND SEX.

Religion	Unmarried		Married		Divorced		Widowed	
	Males	Females	Males	Females	Males	Females	Males	Females
All religions ...	11.4	7.3	4	4.7	(90)	(92)	(39.2)	12.8
Moslems ...	9.2	4.4	3.6	4.0	(72.3)	(58.1)	(44.2)	10.2
Jews ...	18.2	15.3	5.0	8.6	(124.2)	(189.0)	(32.6)	(30.4)
Christians ...	15.1	13.0	6.1	4.1	(227.3)	(112.4)	(15.3)	(6.7)

The general relation between insanity and marital condition is discussed in greater detail in subsequent paragraphs. In the meantime, the statistics suggest that married life conduces mental stability but that this phenomenon is more emphatic in the case of males than in the case of females. It is a possible inference that childbirth is associated with insanity among women.

¹ Dr. Hermann tells me that, apart from idiocy and imbecility which are not under consideration, mental disorders are infrequent among children, so that the small proportion of insane children is not surprising. He also points out that children who have mental trouble have practically no opportunity for institutional treatment in Palestine, so that they either die or are sent abroad for care and treatment.—E.M.

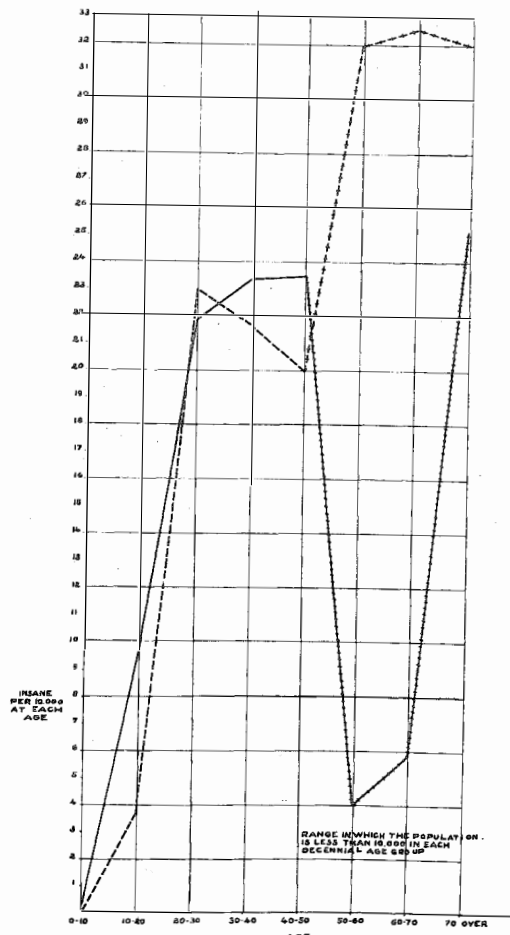
INFIRMITIES - JEWS
INSANITY
FEMALE



RANGE IN WHICH THE POPULATION IS LESS THAN 10000 IN EACH DECENNIAL AGE GROUP

AGE	FEMALE
0-5	-
5-15	1
15-25	18
25-35	27
35-45	(1)
45-55	(32)
55-65	(35)
65-	(35)

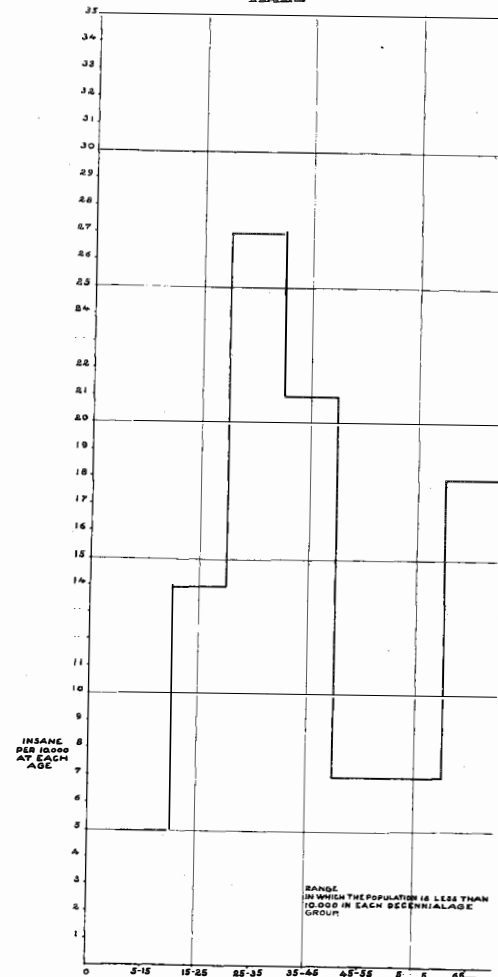
INFIRMITIES - JEWS
INSANITY



RANGE IN WHICH THE POPULATION IS LESS THAN 10,000 IN EACH DECENNIAL AGE GROUP

AGE	MALE	FEMALE
0-10	0.4	0
10-20	9.7	2.7
20-30	21.9	23.0
30-40	23.4	21.7
40-50	(22.8)	(20.0)
50-60	(6.0)	(22.4)
60-70	(9.8)	(22.4)
70-	(22.2)	(24.0)

INFIRMITIES - JEWS
INSANITY
MALE



RANGE IN WHICH THE POPULATION IS LESS THAN 10,000 IN EACH DECENNIAL AGE GROUP

AGE	MALE
0-5	-
5-15	0
15-25	14
25-35	27
35-45	(21)
45-55	(7)
55-65	(7)
65-	(18)

198. The proportion of the male insane rises rapidly in the case of the Moslems and reaches its maximum in the very early prime of life.

The insane among Moslems.

(a) Males.

The sudden rise of the Moslem curve to a maximum at the age 20–30 years is worth attention. For most European communities the maximum frequency for males is to be found at later ages, that is to say, when the prime of life has been reached or passed. On the whole the Moslems are not subjected to the stresses of modern conditions of life and the early age for the maximum prevalence of insanity among them requires explanation. It is probably true that the prime of life among eastern males is reached at somewhat earlier ages than is the case among western people; but Palestine, by reason both of climate and the history of its civilization, is not so oriental in character as to justify an assumption that the prime of life and the climacteric among its male population are many years earlier than is the case among males of western Europe. The statistics arranged according to the Sundbärg theory, discussed in Chapter V, tend to confirm such a conclusion. Apart from the external shocks incidental to industrial life the principal immediate causes of male insanity in Europe and elsewhere have been, at various times, thought to be gross alcoholic intemperance, addiction to harmful drugs, and excesses in sexual intercourse. Dr. Hermann's opinion in regard to the conditions found among the Moslems is:—

“ I explain the fact that substantially more cases of mental disorder occur among Moslem males during the first half of life (as is also the case among Palestinian Jews) to the circumstance that, as had been frequently noted, the diseases resulting from poisons, alcohol, syphilis, etc., are diminishing here, in contrast to Europe. These diseases in Europe tend to swell the numbers of the middle-aged, and to conceal the fact that it is precisely in the first half of life that “ true mental disease ” appears more frequently (as has been shown above in the case of *dementia praecox*). ”

199. The various hypotheses as to the causes of insanity may now be discussed. Alcoholic intemperance may be dismissed as a possible cause of insanity among Moslems in Palestine. Not only is wine forbidden by religious ordinance but, even if that were not so, the rural population cannot economically afford the indulgence, while the numbers of the wealthy Moslems in the towns who ignore the prescriptions of religion are too small to be reflected in the statistics.

Specific immediate causes in relation to Moslems.

The import of dangerous drugs is strictly controlled and none is cultivated or prepared locally. Drugs are smuggled into the country, but are not utilized by the local population, the object of the smugglers being to sell the drugs in Cairo where they command high prices. Of these drugs *hashish* (*cannabis indica*) is the most popular. It is significant that the very great majority of patients in hospitals in Palestine suffering from the effects of this drug are Egyptians living in the country, and are not Palestinian Arabs. Even if *hashish* were consumed locally, it does not appear from modern research that this drug is an active cause of insanity. Taken in moderate quantities in its various forms it appears to have mild stimulating effects. Taken to excess, it will cause physical and moral deterioration, either the consequences or the causes of mental disturbance. In excess it may cause active insanity but, as a rule, only in those cases in which the addict to the drug is pre-disposed to insanity. Indeed, evidence seems to point in the direction of showing that addiction to drugs in general is a mark of the person who is mentally unstable. Excess in the consumption of *hashish*, therefore, would be evidence of a latent condition of insanity rather than a primary cause of the active affliction. In such circumstances, the drug would be one of the potent external stimuli causing the open manifestation of the mental disease¹. Since there are, in Palestine practically no cases of Palestinian Moslems who are addicted to *hashish*, it may be inferred that the problem of insanity in the community is not associated with the taking of the drug, whether the taking of the drug be considered as a primary cause of the disease or only as one of the external stimuli associated with its appearance.

¹ I am indebted to Dr. G. Stuart, O.B.E., Director of the Central Laboratories, Department of Health, for notes leading to this brief summary.—E.M.

Sexual excesses have been observed in many countries as associated with insanity. Here again it is a matter for debate whether the sexual life is not itself a manifestation of mental condition. Ethical ideas concerning punishment and retribution are persistent in many of the inferences drawn from statistics of mental disorder associated with states of sexual life. It is possible that, as in the case of drugs, to seek to determine whether sexual intemperance is the cause of insanity, or insanity the cause of sexual excess, is as futile an investigation as that which seeks to give answer to the question, Which came first? The hen or the egg? The two conditions when associated may proceed *pari passu* either being the evidence of the existence of the other.

Among the rural population of Palestine sexual life begins early. Having regard to the large proportions of unmarried of the male sex among Moslems at at the ages of 20-25 years (Chapter VI) it may be inferred that there is either a not negligible proportion pre-marital promiscuity between the sexes, or a proportion of homosexuality, or complete abstinence from sexual relations. Murders connected with the restoration of "family honour", where a girl has been discovered in illicit relations with a man, are not uncommon, and detected unnatural offences and violations of women are fairly frequent. The last two classes of offence imply, among a population in which the number of women is smaller than the number of men, lack of opportunity for sex-life for men rather than over-indulgence in sexual relations.

The statistics of the Moslem insane by conjugal condition have been extracted from Subsidiary Table No. VII and are given below:—

PROPORTION PER 1,000 MOSLEMS OF EACH SEX INSANE IN THE CONJUGAL CONDITIONS.

	MALES				FEMALES			
	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
Proportion in general population ...	610	370	3	17	470	414	4	112
Proportion among insane ...	713	168	22	97	402	322	52	224

These statistics should be viewed together with those given in paragraph 197 above.

It is immediately apparent that the proportions of male Moslem insane in each conjugal condition are heavily weighted in all the conjugal states other than marriage. In the general population there are 610 Moslem males unmarried and 370 Moslem males married in every thousand, but among the insane these proportions are changed to 713 and 168 respectively. If insanity develops at an age earlier than the usual age of marriage, it is, of course, unlikely that the proportion of insane among the married would be high. On the other hand, the statistics may indicate that married life militates against the development of insanity, and that the lack of opportunity for early marriage may be reflected in the high proportion of the male Moslems insane who are unmarried. The more probable explanation is that insanity declares itself earlier than the normal age of marriage so that the proportion of insane among the married men is low.

On the whole, therefore, the conclusions appear to be that sexual life begins early; that pre-marital relations are likely, but the risks of serious village feuds are too great to permit of excessive indulgence among young men and women; and that the opportunities for marriage among men are few in the years during which the satisfaction of sex needs is a powerful influence in mental and nervous equipoise. There may, therefore, be a general indication that, if there be a causal relation between sex life and mental disorder, male insanity is due to a lack of normal sex life consequential on a disparity in the numbers of males and females

in favour of the males. This disparity, it may be remarked, gives the older man, who has established himself economically, many advantages over his younger rivals in the marriage market.

200. A strong pre-disposing tendency towards insanity is sometimes said to be given in the marriage of cousins on the ground that inbreeding emphasizes the dominant features of a stock, so that consanguineous marriages augment the chances of the appearance of recessive characteristics among the offspring. Against such a view it may be stated that the element which is transmitted is the liability and not necessarily the developed condition. External stimuli are necessary in many forms of mental or nervous diseases which, without their presence, might never make their appearance.

Consanguineous marriage as a possible cause.

In order to test the possibility of consanguinity marriage as a predisposing cause of insanity it is necessary to compare the statistics of sub-districts. In the margin are given the proportions for three sub-districts. The sub-district of Jaffa is largely urban in character and contains two mental homes so that the following assumptions may be made:—

NUMBER OF MOSLEMS INSANE PER 100,000.

Sub-district	Persons	Males	Females
Jaffa Sub-district	35	43	25
Hebron Sub-district	67	70	65
Jenin Sub-district	81	101	63

- (i) The proportions insane in that sub-district are lower for the usual population than those shown.
- (ii) Consanguinity of marriage is less likely in an urban population than in a rural population.

Hebron sub-district, in the Jerusalem district, and Jenin sub-district in the Northern district, are largely rural in character, and neither sub-district has been so subjected to

the emphatic changes manifest in the sub-districts in the plain regions. The marriage of cousins in villages has been a common world-wide experience. It is certainly remarkable that the proportion of insane in each of the two rural sub-districts is considerably higher than in the sub-district which has a large urban population¹.

In all the circumstances, it would be unsafe to suggest more than that urban life in Palestine has not assumed the character which appears to have such profound effects on the mental and nervous system as are noted in European cities; and that human life in the towns of Palestine affords opportunities of harmonious satisfaction of human needs.

Until the problem of the transmission by heredity of mental and nervous diseases is resolved in one direction or the other, it can only be recorded that, in Palestine, a greater prevalence of insanity is found in areas where consanguineous marriages have a large probability.

201. The diagram for Moslem females reveals no special features. The proportion of insane rises steadily through the ages of adolescence and the reproductive period of life so that it may be inferred that the experience of other countries is valid in Palestine, namely, that insanity among women is partly associated with childbirth and the climacteric or, more generally, with the development and degeneration of the reproductive system in the critical ages of life.

(b) Females.

This conclusion is supported by a reference to the tables in paragraphs 197 and 199 above, where the statistics reveal that the proportion of unmarried and married Moslem females insane is greatly nearer the proportion of unmarried and married females exhibited in the general population, than is the case among Moslem males.

¹ Both Dr. Hermann and Dr. Salzberger think that I minimize the chances of cousin-marriage in the towns. I do not think that we are necessarily in conflict. Both physicians, in their experiences of the special morbidities with which they deal, find that the proportion of cousin-marriage is not negligible. Such experiences imply that there is an association between the diseases and consanguineous marriages; not that cousin-marriage is necessarily as frequent in the towns as in the villages.—E.M.

It will be seen that the proportion of insanity among females as among males is higher in the sub-districts of Jenin and Hebron than in that of Jaffa so that the observations given above as to consanguinity of marriages as a possible predisposing cause of insanity among males apply equally to females¹.

Statistics of
insanity
dating from
birth.

202. The number of the Moslem insane from birth per hundred thousand of population is 2.3 persons. The statistics reveal nothing of significance beyond the fact that imbeciles have not, on the whole, been declared among the actively insane. Imbecility is a congenital affliction, and while it may be confused with congenital deaf-mutism and with insanity, the statistics tend to show that there was value in having the declaration of insanity from birth in order to ascertain the degree to which the returns were distorted by confusion of insanity with imbecility. It is to be noted that the proportions per hundred thousand of each sex are 2.8 for males and 1.8 for females confirming experience elsewhere that congenital defects are found more frequently among males than among females.

Having regard only to the insane Moslem population the numbers of those afflicted from birth are 35.8 per thousand males insane and 34.5 per thousand females insane. It would be interesting to ascertain the exact proportions of those insane from birth in the main age groups of life but the numbers shown at the census are far too small to give any reliable data. There is a faint suggestion that the maximum frequency is to be found in late adolescence after which the number of those afflicted from birth diminishes as age increases. Such a result might be expected, since, at the best, the survival of imbeciles will depend on the support and care of other persons; and these necessary conditions of their existence are likely to disappear in the period of late adolescence when parents or guardians are themselves enfeebled or finding self-maintenance difficult. After this period the probabilities are therefore distinctly in favour of the decease of imbeciles in early maturity.

Jewish insane.

(a) Males.

203. It has already been shown in paragraph 194 above that the Jews are in a favourable position in regard to insanity when the statistics are compared with those of European countries.

Distribution by
age.

The curve for the Jewish male insane given in Diagram No. 29 rises rapidly to the age period 20-30 years and attains a steady maximum between 30 years and 50 years. Beyond 50 years the curve drops suddenly and again rises steeply round about the age of 70 years. The statistics after the age of 50 years are most unreliable, the number of Jews at the ages exceeding 50 years being relatively small and the numbers of the insane at those ages being too small to give reliable proportions from which to draw inferences. A careful inquiry in the towns might show that there is a real significance in the violent fluctuations in the curve beyond the age of 50 years. Thus the fall in the curve at the ages 50-60 years might be associated, as it usually is elsewhere, with ordinary mortality during those ages; while the rise in the curve between 55 and 75 years of age may be due to a small immigrant population in those years whose main interest is to be in Palestine at the time of death. Such a population is, as it were, attached to the ordinary Jewish population, including natural and immigrant units, and does not strictly form part of it in a sociological sense. It is an accretion and not the result of sociological evolution in Palestine. It possesses, therefore, no continuity with the main Jewish population and its features, therefore, may introduce singularities in the statistical descriptions of the main population. Such an explanation would account for the abnormality in the curve between the ages of 55 years and 75 years if that abnormality be not due to the unreliability of statistics based on small numbers. Dr. Hermann comments on this peculiarity of the statistics in the following terms:—

“ The fact established by statistics relating to Jews that the curve reaches its maximum between the ages of 30 and 50 does not correspond at all to my personal experience, in accordance with which the maximum is about the age between 20 and 30. It is true that, in old

¹ See footnote to paragraph 200 above.—E.M.

“ age, there is a small immigration of pious old men who wish to die in Palestine, but immi-
 “ grants at the ages 45-65 years are very rare. I should like to express the conjecture that a
 “ substantial source of error in these statistics is to be found in the psychological circumstance
 “ that, as has been frequently mentioned, heads of households shrink from declaring openly in
 “ statistics as insane the young members of their families in consideration of the possibility
 “ of a marriage or perhaps of a hope of gain. These scruples decline with the ageing of the
 “ afflicted. In the first place, those who are diseased in middle-age have frequently suffered
 “ earlier or have been ill from youth, and there is, therefore, nothing much more to conceal ;
 “ and, secondly, these infirm persons are in general no longer in the houses of the heads of their
 “ families as was the case in their earlier years ; but, in so far as they are not in institutions,
 “ they are in the care of strangers who have not the above-mentioned scruples of heads of
 “ households.”

The causes of insanity among Jewish males must be sought in the social complexes from which the Jewish population is drawn. Alcoholic intemperance is unknown among them. Few, if any in Palestine, are addicted to drugs. The chances of consanguineous marriages in a population largely composed of immigrants are small.

Causes of insanity.

The statistics of the Jewish insane by conjugal condition have been extracted from Subsidiary Table No. VII and are given below :—

Insanity and conjugal conditions.

PROPORTION PER 1,000 JEWS OF EACH SEX INSANE IN THE CONJUGAL CONDITIONS.

	MALES				FEMALES			
	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
Proportion in general population ...	570	410	4	16	484	414	7	95
Proportion among insane ...	771	154	33	42	489	236	84	191

These figures should be examined with those given in the table given in paragraph 197 above.

The proportion of Jewish insane males who are unmarried is striking not only in relation to the proportions in the other conjugal states but also in relation to the proportion of unmarried among the general Jewish population. Apart from economic difficulties of maintaining a family, no obstacle to marriage arises in the structure of the Jewish population on the basis of sex. Here it must be inferred either that, as in the case of Moslems, insanity tends to be declared among the males before the usual age of marriage or that there is foreknowledge in many cases of inherited pre-disposing tendencies towards insanity which effectually operates against the marriages of such persons.

204. The most interesting feature of the statistics of insanity among Jewish females is the fact that the proportion of Jewish females insane is higher than the proportion of Jewish males insane the figures being 151 and 134 per hundred thousand females and males respectively. The general inaccuracy of the returns may be the cause of this phenomenon, but, as will be seen from the succeeding discussion on age distribution the cause may be found in a special immigration of aged women ; and, in that event, the feature is not typical of the normal Jewish population. Dr. Hermann, however, points out that the phenomenon is normal. He says :—

(b) Females.

“ As had been mentioned before, the preponderance of mentally diseased women among the
 “ Jews is not at all surprising, and agrees with European experience, for there too (see e.g.
 “ Bleuler’s Textbook of *Psychiatrie*) the numbers of the so-called emotional diseases, and,

“in consequence, the two practically most serious mental diseases, *dementia praecox* and maniacal depressive madness, are greater among women than among men, who, in effect, only reach the same numbers as women owing to their preponderating proportion of alcoholic and syphilitic psychoses.”

**Age
distribution.**

205. The curve for the females given in Diagram No. 29 rises, on the whole, steadily throughout life up to the age of 30 years, begins to decline at the age of 40 years but again rises sharply in later years. The fluctuations in the curve, relatively small when compared with those in the curve for males, are due to uncertainty in the age returns where, as has been shown in Chapter V, distortions have been introduced either by ignorance or deliberate preferences for ages ending in certain digits.

Here again, insanity is partly associated with the development and degeneration of the reproductive functions, a conclusion which is supported by the statistics of insanity and conjugal condition given in the tables in paragraphs 197 and 203 above.

The curve does not decline in the ages exceeding 50 years but remains at a constant level with age advancing to 70 years and over. This level is greatly above the average level for the proportion of Jewish males insane at these ages, and this fact partly accounts for the higher proportion of females insane over that of males insane in the general population. Unless the smallness of the numbers is causative of this singularity in the curve it may be stated that, after the age of 50 years, deaths and new cases balance each other. It may be that, as was suggested in the case of Jewish males, there is, at the latter end of life, a special immigration of women animated by those motives that inspire the men to enter Palestine at these late ages. Such a population is not in continuity with the main population and its characters may introduce distortions into the attributes of Jewish population as a whole.

**Jewish insane
from birth.**

206. The number of Jews returned as insane from birth is 1.2 persons per hundred thousand of population among the females, no returns having been given for males. The statistics suggest that there has been a proper avoidance of declarations of mental disorder other than that of active insanity.

**Christian
insane.**

207. It has already been pointed out that the Christian community is heterogeneous in composition. The total Christian population is 91,398 persons of whom more than ten thousand have been declared as coming from Europe and America, and practically all of whom are in the younger reproductive years and none of whom is insane. The proportions of insane given for Christians are therefore lower than they are, in fact, for the Christian Arab community. Another disturbance in the statistics is introduced by the not inconsiderable conventional population, the units of which by their vocation are unmarried. The distortions introduced by the presence in the population of a large foreign element have made it inadvisable to prepare diagrams such as have been prepared for the Moslems and the Jews. Unless reservations as regards distortions are kept in mind, the statistics of Subsidiary Tables VI and VII are entirely misleading. Diagrams are useful in giving a speedy impression of the general character of a group of statistics: but impressions from diagrams, recapitulating statistics that are misleading without explanation of the reservations concerning them, are more misleading than the original statistics on which the diagrams are founded.

Another feature of the statistics is the uncertainty introduced by the smallness of the Christian population and of the absolute quantities representing its various characters and attributes.

**Age
distributions.**

**Males.
Females.**

208. The age distribution of both male and female Christian insane reaches its maximum between the ages of 35 years and 45 years. The normal decline in the proportions at subsequent ages is interrupted at the age of 65 years where the proportions again reveal a tendency to rise. A change of age-grouping to decennial periods ending in the digit 9 shows, however, that this apparent rise in the

proportions is entirely without significance and is due to uncertainty in the return of ages. Dr. Hermann comments on the age distribution in the following terms:—

“ Here too, I am surprised by the fact that among Christians the maximum is reached between 35 and 45. It is probably accounted for by similar sources of error as those mentioned in respect of the Jews *i.e.* a large number of psychoses among younger people have not been declared, and the afflicted between the ages of 35 and 45 are those who have been for years in institutions or who have long been known to their neighbours as notorious lunatics.”

209. Alcoholic intemperance is not a feature of life in Palestine, but it must be admitted that its probability, never high, is higher in the Christian community than either the Jewish or the Moslem community. Making allowances for the distorting features of the returns to which reference has been made in paragraph 207 above, the proportions of the insane among the Christians are notably lower than in European countries where, in some instances outside the years of the Great War, when restrictions on the sale of alcohol were universal, alcoholism is responsible for about 15–20 per cent. of the cases admitted to mental homes.

Causes of insanity.

Drugs, as has been shown in the case of the other communities in Palestine have no claim to further consideration as a factor in the problem.

Since the Christian population is largely urban in character there is no ground for supposing that consanguinity of marriage assumes among them an undue probability.

The marked feature of the whole community is to be found in a study of its conjugal structure. The statistics of the Christian insane by conjugal condition have been extracted from Subsidiary Table No. VII and are given below:—

PROPORTION PER 1,000 CHRISTIANS OF EACH SEX INSANE IN THE CONJUGAL CONDITIONS.

	MALES				FEMALES			
	Unmarried	Married	Divorced	Widowed	Unmarried	Married	Divorced	Widowed
Proportion in general population	664	321	1	14	542	325	2	131
Proportion among insane	807	158	17	18	744	140	23	93

These figures should be considered together with those in paragraph 197 above.

The community is predominantly unmarried. This is due largely to the presence of troops, unmarried foreigners engaged in various activities in administration and commerce, and to the conventual population to which reference has been made. These classes of population do not contribute to the insane population, yet the proportion of the insane who are unmarried is considerably higher than in the other communities in Palestine. This is emphasized in the case of the females among whom there is an equally remarkable small proportion of insane who are married or who have been married.

It would, indeed, seem that there is in the Christian community a lack of adjustment to the conditions of life. Natural selection may, as in the other communities, operate against the marriage of those who are pre-disposed to the affliction, but the large differences exhibited in the proportions by conjugal condition, not only *per se* but also in comparison with the other communities, may indicate that delay or lack of opportunity of marriage is a factor not without importance in the problem. The striking differences between the proportions by conjugal condition within the community and between those proportions and the proportions in other communities cannot be without significance in regard to both the sociological environment of the Christian community for a period of history and also the structure of the community measured in terms of marriage.

Statistics of insanity from birth.**Christians.**

210. The number of persons returned as insane from birth is 3.3 persons per hundred thousand of population representing 6.5 insane males per hundred thousand males and none per hundred thousand females. While these statistics exhibit the usual phenomenon that congenital defects are more frequent among males than females, they suggest that in the case of the Christian community there has been a greater confusion between imbecility and insanity than in either the Moslem or the Jewish communities. Dr. Hermann observes :—

“The greater percentage of congenital mental diseases among Christians can be attributed to more exact declarations among this more enlightened population. Moreover, the possibility cannot be rejected that it is precisely in the case of congenital psychical disturbances that injuries to the embryo occur through alcohol and drugs among this urban population.”

General observations.

211. A few general observations may be made in closing the section on the statistics of the insane.

According to Prinzing¹ the rarity of general paralysis of the insane among uncivilized people is a greatly debated question. The disease is often said to be of syphilitic origin but, in spite of the prevalence of syphilis in the Balkan States, in the East generally, in Algeria, in Morocco, and in Brazil paralysis appears to be frequent in those countries. On the other hand it seems to be well established that paralysis is not infrequent in the East among Moslems who come into contact with European civilization. According to Le Marie 6 per cent. of the admittances to the Abbassieh Hospital in Cairo for the years 1894-1909 suffered from paralysis, and of these 75 per cent. were of Arab origin. Rashid Tahsin Bey maintains that the disease is rare in the rural districts but prevalent in the towns and ports. Prinzing goes on to point out that Gärtner regards the early treatment of syphilis as important, since this prevents the building up of protective matter against the disease, and it is suggested that the protective matter is causative of the insanity. An interesting view is that malaria may be preventive of paralysis, and the success of the treatment of the affliction by the method of giving the patient malarial disease tends to support that view. Other authorities assume that intensity of sun radiation and the free evaporative functions of the skin among pigmented people in hot countries are important in the prevention of the disease. Dr. Hermann's experience is :—

“The late syphilitic forms in the East have certainly different characteristics from those in the West. This is explained, apart from the question of influence by the sun and the frequent suffering from malarial infection, by the fact that among natives cases of general paralysis are very rarely seen. This is also my experience. The cases of paralysis which have occurred more frequently recently are almost invariably found among people who have immigrated here from Europe, America and the Russian district bordering on Asia, or who have spent many years in those countries.”

All these hypotheses could be supported by untested inferences from the statistics for Palestine. Detailed inquiry is necessary before confident conclusions can be reached. The case of Hebron sub-district is particularly noteworthy, since there is, in that sub-district a wide prevalence of syphilis in its less severe forms due to oral rather than venereal infection. Other areas should be found where venereal affections are common ; and the analysis of the material should embrace considerations of the prevalence of malarial diseases in those areas. The examination of the spleen indices for various villages would materially assist in determining what areas are best adapted for the study suggested.

Emphasis must be laid on the fact that returns as to imbecility were not sought and, on the whole, have not been elicited, although the statistics of insanity dating from birth may give some indication to the contrary. The population suffering from grave mental disorder must therefore be greater than is revealed by the statistics. In some European countries, the proportion of imbeciles among inmates in mental homes is 10 per cent. In Palestine the tables

¹ *Handbuch der mediz. statistik* 1931.—E.M.

ERRATUM

Page 240. Paragraph 211, line 7 therein.
For “frequent” read “infrequent”.

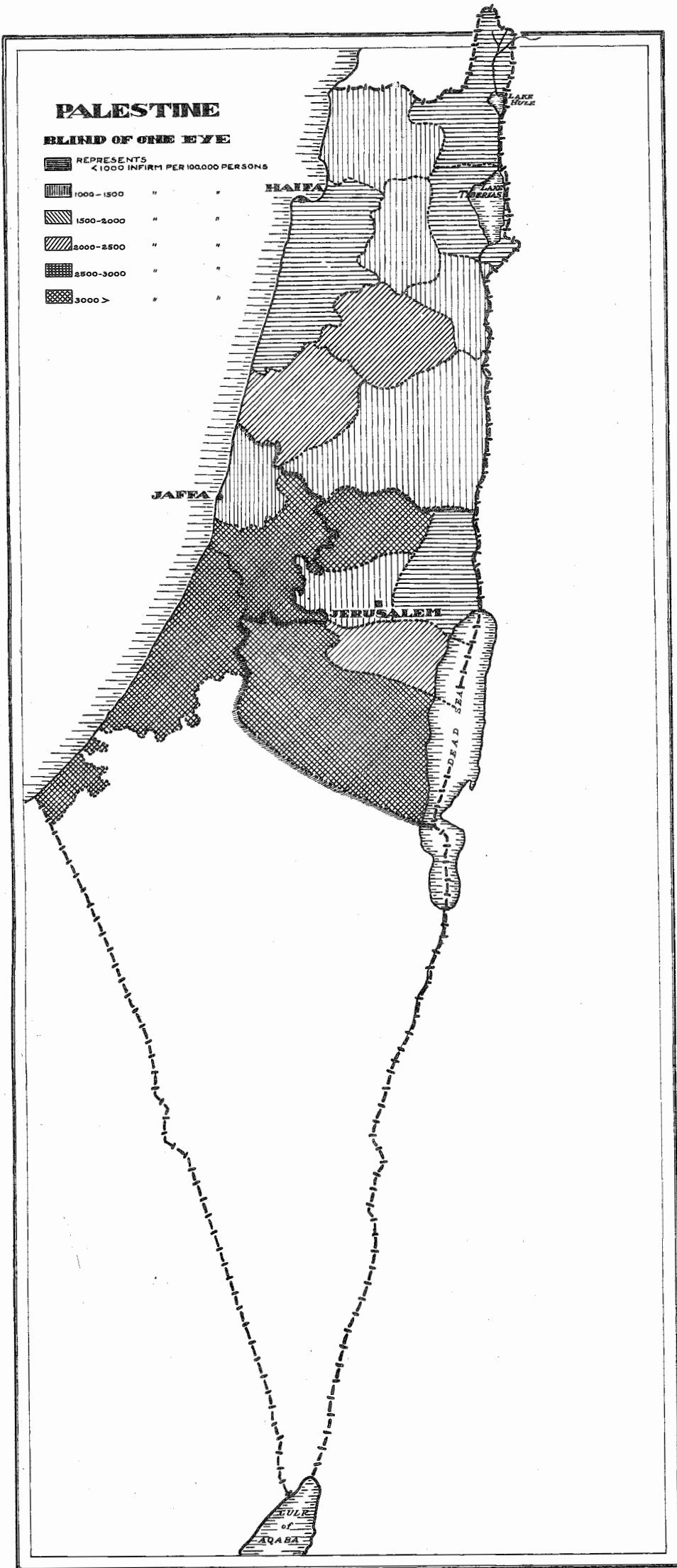
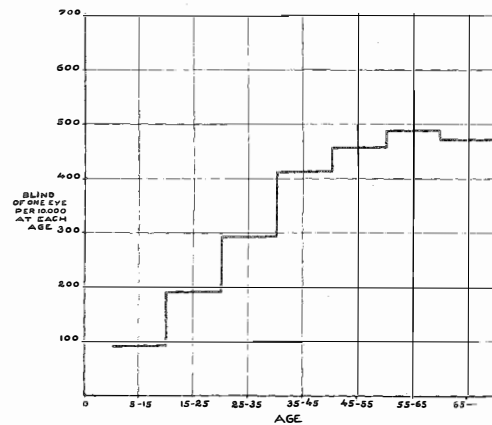


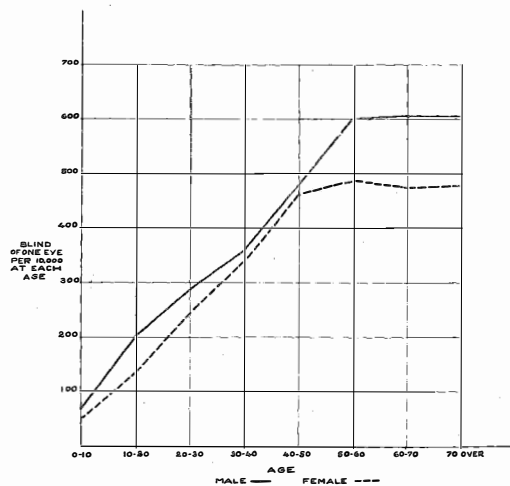
DIAGRAM No. 30

**INFIRMITIES—MOSLEMS
BLINDNESS OF ONE EYE
FEMALE**



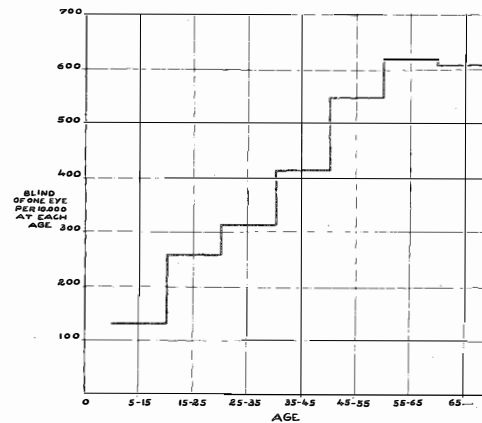
AGE	FEMALE
0-5	34
5-15	94
15-25	194
25-35	295
35-45	416
45-55	460
55-65	492
65—	475

**INFIRMITIES—MOSLEMS
BLINDNESS OF ONE EYE**



AGE	MALE	FEMALE
0-10	78	84
10-20	204	187
20-30	289	246
30-40	368	341
40-50	483	463
50-60	492	487
60-70	607	476
70—	606	479

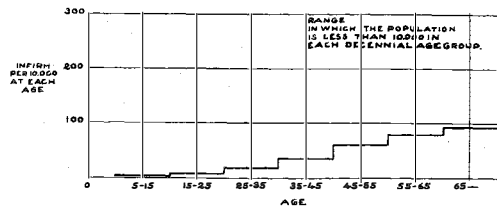
**INFIRMITIES—MOSLEMS
BLINDNESS OF ONE EYE
MALE**



AGE	MALE
0-5	45
5-15	134
15-25	262
25-35	316
35-45	417
45-55	581
55-65	622
65—	614

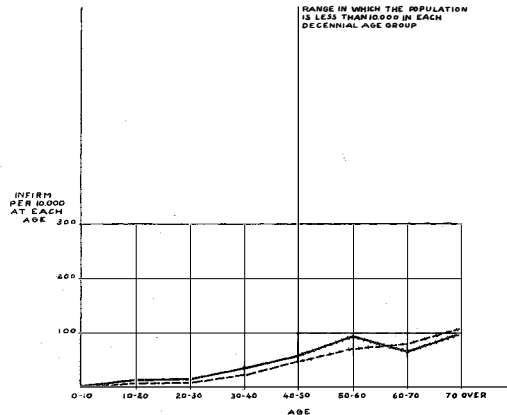
DIAGRAM No. 31

**INFIRMITIES — JEWS
BLINDNESS OF ONE EYE
FEMALE**



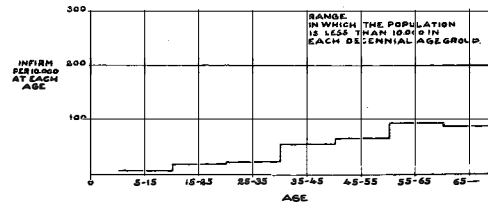
AGE	FEMALE
0-5	1
5-15	5
15-25	8
25-35	20
35-45	(36)
45-55	(61)
55-65	(80)
65—	(94)

**INFIRMITIES — JEWS
BLINDNESS OF ONE EYE**



AGE	MALE	FEMALE
0-10	2.6	1.0
10-20	16.7	8.8
20-30	18.6	11.3
30-40	37.6	25.0
40-50	(60.3)	(50.0)
50-60	(96.0)	(72.4)
60-70	(66.3)	(48.9)
70—	(91.0)	(104.0)

**INFIRMITIES — JEWS
BLINDNESS OF ONE EYE
MALE**



AGE	MALE
0-5	3
5-15	7
15-25	20
25-35	33
35-45	(56)
45-55	(66)
55-65	(94)
65—	(88)

DIAGRAM No. 32

PALESTINE

TOTALLY BLIND

- REPRESENTS 200-500 INFIRM PER 100,000 PERSONS
- 500 - 750 " "
 - 750 - 1000 " "
 - 1000 - 1250 " "
 - 1250 - 1500 " "
 - 1500 - 1750 " "
 - 1750 - 2000 " "

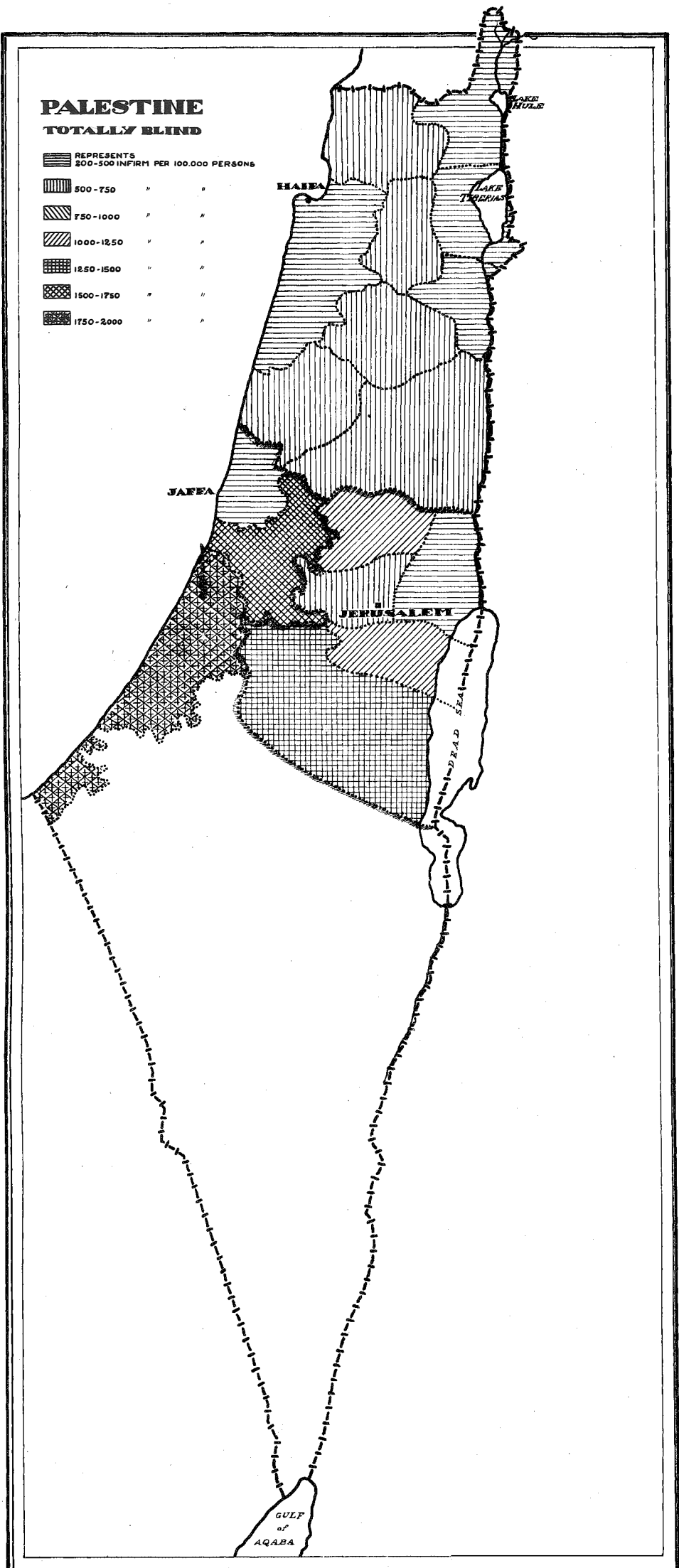
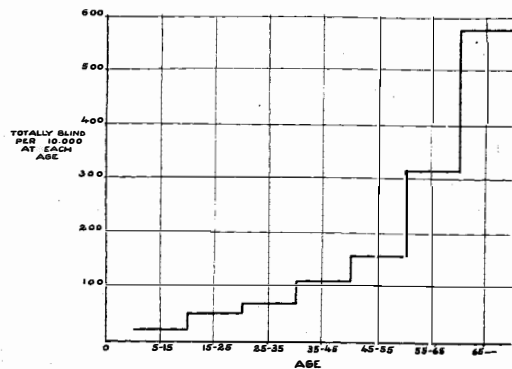


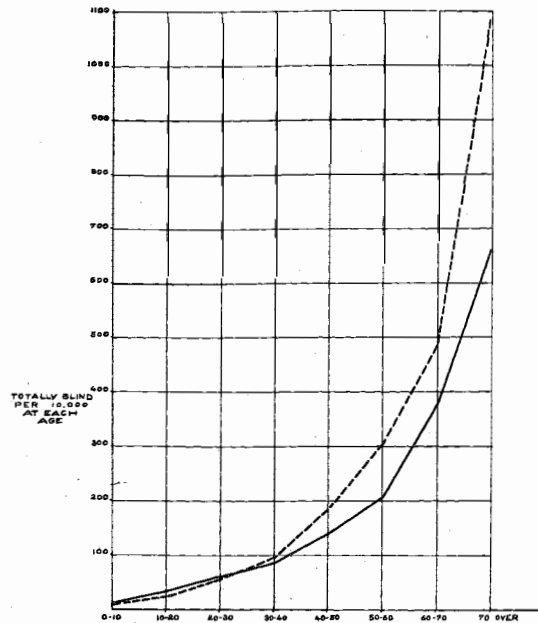
DIAGRAM No. 33

**INFIRMITIES - MOSLEMS
BLINDNESS
MALE**



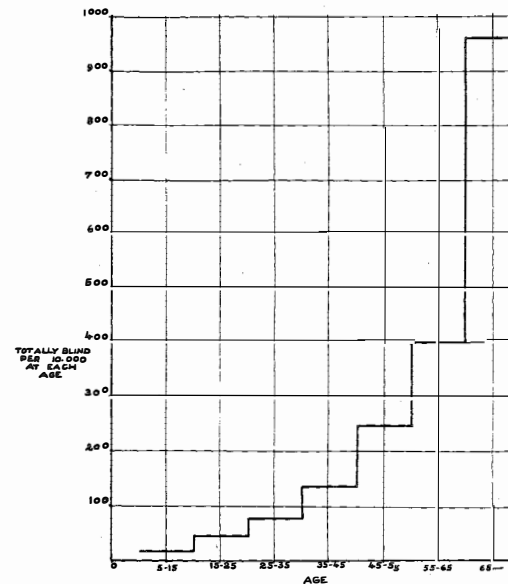
AGE	MALE
0-5	11
5-15	38
15-25	53
25-35	70
35-45	113
45-55	160
55-65	318
65--	579

**INFIRMITIES MOSLEMS
BLINDNESS (TOTAL)**



AGE	MALE	FEMALE
0-10	14	12
10-20	35	36
20-30	62	68
30-40	88	97
40-50	140	185
50-60	207	308
60-70	377	487
70--	660	1083

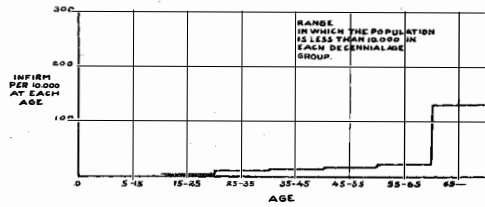
**INFIRMITIES - MOSLEMS
BLINDNESS
FEMALE**



AGE	FEMALE
0-5	10
5-15	17
15-25	45
25-35	77
35-45	136
45-55	249
55-65	602
65--	961

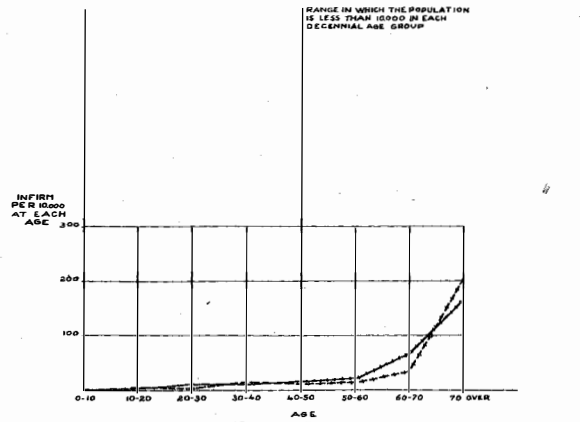
DIAGRAM No. 34

INFIRMITIES - JEWS
TOTAL BLINDNESS
FEMALE



AGE	FEMALE
0-5	—
5-15	3
15-25	4
25-35	10
35-45	(13)
45-55	(17)
55-65	(23)
65—	(37)

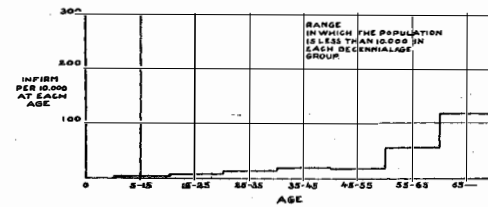
INFIRMITIES - JEWS
TOTAL BLINDNESS



MALE — FEMALE - - -
MALE — FEMALE - - - IN AGE GROUPS WHERE THE POPULATION IS LESS THAN 10,000

AGE	MALE	FEMALE
0-10	1.8	0.5
10-20	3.0	4.5
20-30	11.4	9.8
30-40	12.1	18.3
40-50	(19.1)	(12.9)
50-60	(24.5)	(18.0)
60-70	(29.2)	(35.0)
70—	(36.7)	(24.0)

INFIRMITIES - JEWS
TOTAL BLINDNESS
MALE



AGE	MALE
0-5	1
5-15	3
15-25	7
25-35	16
35-45	(19)
45-55	(16)
55-65	(50)
65—	(119)

of insanity dating from birth show that of the total number of persons returned as insane 2.5 per cent. have suffered from the affliction from birth. The proportion is probably much greater, but it is possible that it is not as great as that shown for a population of inmates in mental homes in Europe. Inmates are a special class receiving attention and, consequently, may be expected to survive in greater proportions at the various ages of life than imbeciles living in a general population lacking resources for care and skilled attention. In other words, imbeciles die young in Palestine, while in Europe proper care and attention keep them alive.

It may be accepted that, while the problem of providing treatment and care for those suffering from serious mental disorder is always serious, Palestine is, in this respect, more fortunate than most countries. On the other hand, accommodation for patients is lacking for at least four-fifths of those who, in European countries, would be placed either in restraint or under care and skilled supervision.

Finally, since insanity is a disease associated with civilization, it is probable that the introduction into Palestine of standards and habits of life, evolved in Europe, may be accompanied by an increase in the prevalence of serious mental disorder. The question of accommodation for the mentally unfit demands, therefore, consideration on the basis of a fairly broad policy which will take into account the probably expansible character of the insane population in succeeding generations.

BLINDNESS.

212. In the general observations given at the beginning of this chapter, reference was made to the fact that economic blindness is measured in a series of degrees; and since no steps were or could have been taken at a general enumeration to diagnose blindness and classify it in properly defined compartments, the statistics suffer the defects arising from subjective diagnosis by sufferers who are naturally ignorant of the classification and degree of their affliction. Nevertheless, the statistics of blindness are less unreliable than those of the other infirmities¹. It had been anticipated that male householders, responsible for making the census returns to the enumerators, might be reluctant to reveal physical defects in the female numbers of their establishments. This apprehension does not appear to have been justified since, while the proportions of females blind of one eye are smaller at all ages of life than those of the males, the proportions of females returned as totally blind are higher than those of the males from the age of 30 years onward. Moreover, a study of the infirmity in relation to marital condition suggests that any reluctance to give details about the physical defects of females has been exercised, if at all, in favour of the unmarried, since the proportions of blind are everywhere greater among the women who are or who have been married. Since blindness in most of its manifestations is an affliction of age, this apparent exercise of favour in respect of the unmarried may mean no more than that the unmarried, being on the whole young, are not blind.

Generally, therefore, it may be said that blindness is an infirmity of which no one is ashamed and which there is no desire to conceal.

213. In Palestine 1,968 persons in every hundred thousand are blind of one eye; while 843 persons in every hundred thousand are totally blind. The table given below shows comparative figures for total blindness in several countries:—

NUMBER OF TOTALLY BLIND PERSONS PER 100,000 OF POPULATION.

Country	Year of census	Both sexes	Males	Females
England and Wales	1911	73	76	70
Scotland	1911	70	71	69
Ireland	1911	98	97	99
Austria	1911	69	71	64
Germany... ..	1925	59	72	47
Norway	1920	102	107	97
Latvia	1920	225	211	236
Turkey (Europe)	1927	156	188	122
" (Asia)	1927	201	237	168
British India	1921	150	...	...
Cyprus	1921	420	422	417
Egypt	1927	776	730	820
Palestine	1931	843	709	981

¹ On this point see special note appended to this section giving the crude results of Dr. Strathearn's examination of twelve villages.—E.M.

General
remarks.

It will be seen that conditions as regards blindness in Palestine are comparable only with conditions in Egypt, the local proportion being many times that in all other countries. Conditions in Egypt improved so greatly between 1917 and 1927 that Palestine now takes the first place in regard to the gravity of this affliction¹.

Local
distribution.

214. A close analysis of the statistics shows that the incidence of the disease is heaviest in the Gaza sub-district in the Southern district, and special subsidiary tables relating to the prevalence of the affliction in that area have been included in the appendices to this chapter. It also appears that, as might be expected from the geographical distribution, the affliction is decidedly more prevalent among Moslems than among Christians or Jews. While the proportion of blindness among Jews is serious, approximating as it does to that in British India, and while the proportion among Christians is about one half of that among Moslems and consequently presents a grave problem, it is unnecessary to investigate in great detail the statistics by communities separately.

The table given below gives the information extracted from Subsidiary Table No. *XII* :—

NUMBER OF PERSONS AFFLICTED PER 100,000 OF POPULATION.

Religion and District	Blind of one eye			Totally blind		
	Persons	Males	Females	Persons	Males	Females
Palestine :	1,968	2,092	1,841	843	709	981
Moslems	2,512	2,672	2,348	1,061	883	1,245
Jews	260	287	232	139	149	131
Christians	1,215	1,210	1,220	564	462	666
Southern District	2,802	2,867	2,734	1,137	946	1,338
Jerusalem District	2,115	2,254	1,976	871	739	1,002
Northern District	1,252	1,407	1,092	606	512	703
Gaza Sub-district	4,662	4,562	4,761	1,933	1,596	2,266

The geographical distribution shows that the prevalence of the infirmity varies inversely with the rainfall, with the notable exception of Jericho sub-district. In Jericho the conditions of life are entirely different from those in the rest of Palestine, particularly in the fact that luxuriant vegetation is constant as a result of perennial irrigation². A study of the prevalence of eye disease among the Beduin habitually resident in Beersheba sub-district, from whom information as to infirmities was not taken for the census, might indeed show smaller proportions of blindness than are exhibited in the Gaza sub-district; but would not upset the general conclusion that eye-disease is associated with heat, dust and glare, and that good rainfall which ensures constant green vegetation, acting as a screen against dust in dry weather, is an effective combatant against the affliction. There is also some reason for supposing that the primitive common threshing floors, which are a feature of villages in the southern parts of Palestine but are less frequently found in the north, contribute to the spread of eye-disease. The people themselves believe that the disease comes from the chaff from the winnowing of the grain; and it is a fact that the rise in the annual incidence of the disease occurs at the threshing season, when the bacillus associated with trachoma, is most active³.

¹ The number of persons totally blind per hundred thousand in Egypt in 1917 was 1,223 and in 1927 was 776.—E.M.

² Dr. Strathearn tells me that the people of Jericho are the remote descendants of negroid settlers who established themselves many centuries ago; and that ophthalmologists believe that the negro peoples have immunized themselves in respect of eye diseases which, at some remote period, must have ravaged them.—E.M.

³ It is of interest that local tradition ascribes evil influences to the figtree. Not only is it supposed that other fruits, particularly hard fruits, cannot flourish in its neighbourhood but human ills, particularly blindness, are said to be due to its malefic powers. This tradition is of special interest in relation to the accounts of the cursing of the figtree near Bethany by the Founder of the Christian religion. Cf. *Matthew XXI* 17, 21 and *Mark XI* 12, 14. If the tradition of evil, now attached to the figtree, existed at that time, the act would not be inconsistent with the ethic of the people and would not be incomprehensible to the audience.—E.M.

The natural conditions of the hot desert climate, which influences southern Palestine so strongly, are aggravated by the conditions under which the people, who are not Beduin in that region, live. Their houses are generally made of mud-brick and are badly ventilated and much harm is done to the eyes by the bad air, and the irritating smoke of the fires at which the people cook their food. The crowded accommodation of village houses makes transmission of the disease by infection unavoidable; and hosts of flies, inevitable in the general insanitary circumstances of villages, no doubt facilitate the process.

It is not surprising that in these conditions women of the age of 35 years and upward suffer more severely from total blindness than the men, since they are more closely confined to the unhealthy conditions favourable to the development of the affliction.

215. The diagrams given show the distribution of blindness of one eye and total blindness at different ages. No diagrams are given for the Christians for the reasons given in the section devoted to insanity. It is, indeed, unnecessary to discuss blindness in relation to the communities because, in so far as culture enters the matter, it is sufficiently well established that the better the standard of life the greater is the personal cleanliness and consequently, the smaller is the risk of infection.

Age
distribution.

216. The age distribution of the blind of one eye is very remarkable. For both males and females there is a uniform increase in the number of cases with advancing years and the proportion of females afflicted, is always smaller than the proportion of males. This increase ceases for females between the ages 45 years and 50 years, and for males at about 55 years, when all new cases are balanced by the mortality among cases above these ages. Both curves are ideally straight lines to the points of maximum frequency and show that a population of ten thousand persons born at the same time yields a hundred cases of blindness of one eye in each ten years of life, until the maximum frequency is reached, in the case of males at about 55 years of age and in the case of females at about 50 years of age. Making allowance for congenital blindness of one eye, a population of ten thousand of each sex born at the same time and surviving to the age of about 45 years to 50 years will have given five hundred cases of the affliction for males and about four hundred and fifty cases for females, by a steady increment of ten new cases in each year of life. Such a result could not have been anticipated, seeing that blindness of one eye may often be caused by mechanical injury and not by disease. Mechanical injury is more probable in urban life in such occupations as stone-cutting or stone-crushing. That it plays a small part in the total statistics is shown by the fact that the proportions of blindness of one eye in the Jaffa sub-district, which has a comparatively large urban population, are emphatically smaller than they are in the two neighbouring sub-districts of Ramle and Gaza, which are rural in character.

BLIND OF ONE EYE PER 100,000 OF POPULATION.

Sub-district	Persons	Males	Females
Gaza	4,662	4,562	4,761
Jaffa	1,205	1,348	1,057
Ramle	3,570	3,775	3,448
Hebron	3,207	3,450	2,962
Nablus	1,194	1,417	979
Jenin	2,009	2,121	1,901

Occupations, likely by their nature, to cause mechanical injury to the eyes are not numerous in Gaza sub-district¹, and it may be accepted that by far the greater

¹Chaff from the winnowing of grain may cause mechanical injury in some cases.—E.M.

proportion of blindness of one eye is in Palestine caused by disease. The fact that persons living in towns have greater opportunity for treatment for eye-trouble, whether caused by disease or by mechanical injury, cannot account by itself for the wide disparity between the figures given for the rural as against the urban sub-district.

217. The age curves for total blindness are completely consistent with similar curves for other countries in which eye-disease is prevalent. The curves for both males and females rise gently until the age of 45 is reached when the gradient rapidly increases with advancing years. Blindness is, in fact, a disease associated with old age. It will be observed that below the age of about 27 years the affliction is more prevalent among males than among females and that, after that age, females suffer not only more severely but at a continually increasing rate. This agrees with observation elsewhere to the effect that, where eye-disease is not severe, it is more frequent among males than among females, but, where it has a high degree of prevalence, its incidence among females is considerably greater after the prime of life has been reached. It is worth repeating that the effect of daily existence in the confined conditions of village houses with their lack of ventilation is most distinctly reflected in the considerably higher proportions of blindness among women than among men. It is also possible that women resort less freely than the men to such clinics and hospitals as are accessible. Where economic existence is difficult it is a large undertaking to journey from remote villages to the towns where treatment is available, so that it is probable that a greater proportion of men than women receive some ophthalmic attention.

Statistics of
blindness
dating from
birth.

218. It may be said that statistics of blindness dating from birth must be in the very nature of the circumstances unreliable. This observation applies particularly in cases where only one eye is affected. A long period will not normally lapse before the mother of a newly born child, who is totally blind, realizes that the child has no vision. In the case of blindness of one eye it may very well be that the condition is not perceptible to any lay observer; and it is probable that there are many persons blind of one eye from birth who are not aware of the defect. It follows that the degree of reliability of the statistics of blindness of one eye is for all ages lower than that of the statistics of total blindness. There is no reason, other than statistical, for dissatisfaction in the unreliability of the returns relating to the less serious affliction, because the economic disabilities attached to the condition are relatively small compared with those characteristic of total blindness. The real value of statistics concerning blindness of one eye is to be found in the possibility that their investigation may throw further light on the incidence and progress of decline of the greater affliction.

(a) Blindness
of one eye.

219. The number of persons afflicted from birth per hundred thousand of population is given in Subsidiary Table No. II. The most remarkable feature is the wide difference between the proportions given for males and females in the Southern district in favour of the males. There is a very strong indication that the statistics are unreliable since the returns purport to relate to congenital defects which are usually more frequent among males. If, on the other hand, the statistics reflect a state of fact, it can only be concluded that the defect is, on the whole in the Southern district, not congenital but is due to external infection at the time of, or shortly after, birth. If the infection be acquired at the time of birth, it will probably be gonorrhoeal in origin leading to a form of blindness or defective vision known as *ophthalmia neonatorum*¹. It seems more probable, however, that external infection occurs after birth and leads to trachoma, trichiasis and other forms of eye-disease so prevalent in the country and not connected with venereal affections.

¹ While I have been unable to analyse the diagnoses made in respect of Dr. Strathearn's sample examination in time for inclusion of the results in this Report, I have noted the fact that no case of *ophthalmia neonatorum* occurs. Dr. Strathearn tells me that gonorrhoea is infrequent in Palestine.—E.M.

The statistics for the three communities show that the proportion among the Jewish population of Jews afflicted with blindness of one eye from birth is between one fifth and one sixth of the similar proportion for Moslems, and about one quarter of that for Christians ; but that rather more than 1 per cent. of the Jews and Christians blind of one eye are so from birth, a proportion almost twice that of the Moslems. The proportion of Jews totally blind from birth in the Jewish population is only one fortieth that of the Moslem population and not quite one eighth that of the Christian population. Since the similar proportions among the three blind populations are very nearly one half and one third respectively, there is a distinct suggestion that Jews and Christians have greater opportunity than the Moslems to restrict eye-disease, and that the Jews are most favourably situated in this regard. This, of course, is a fact, since Christians, being in great part an urban population, find little difficulty in obtaining skilled treatment when eye-disease begins, and are able in virtue of living in towns to maintain a higher standard of personal cleanliness than is possible in most villages. The Jewish population whether in the towns or in the villages have also facilities for treatment, and the conditions under which most of them live are such as to render the risk of eye-disease comparatively small. It is natural to expect that the proportion of congenital blindness among those who are blind from all causes will be higher in communities with the higher standard of life, and it is comforting to realize that the statistics are not contrary to a natural expectation.

220. It has already been pointed out that, while total blindness may not usually be detected at the time of birth, there is a fair chance that it will be detected while the child is still very young. If, of course, infection takes place at the time of birth or very shortly after, and blindness ensue fairly early in life, there will almost certainly be included in the returns a number of persons whose blindness is not congenital. The extent to which that vitiation of the returns has taken place cannot be detected by mere examination of the census statistics. A careful inquiry conducted in well-chosen localities yielding representative samples of eye-diseases in all stages of development would be necessary to determine the element of error in the census returns. (b) Total blindness.

It is sufficient, for purposes of this Report, to point out that the statistics of blindness from birth, while not by any means accurate in determining the prevalence of congenital blindness, yield information as to blindness which begins in very early life. Viewed in this aspect the statistics have a great importance. The principal information is given in the table set out below, extracted from Subsidiary Tables Nos. II and II(a).

TOTAL BLINDNESS.

District and religion	Number of persons afflicted from birth per 100,000 of population.			Number of afflicted from birth per 1,000 afflicted persons.		
	Persons	Males	Females	Persons	Males	Females
Palestine	32.3	37.6	27.6	38.6	52.8	28.2
Southern District ...	25.6	28.2	22.9	22.6	29.8	17.1
Jerusalem District ...	29.1	37.4	21.0	33.5	50.5	20.9
Northern District ...	40.0	44.5	35.4	66.0	86.9	50.4
Moslems	43.1	49.7	36.4	40.6	56.3	29.2
Christians	14.2	13.1	15.4	25.2	28.3	23.1
Jews	1.7	2.3	1.2	12.3	15.3	8.8

It will be noticed that, in every section of the table, with one exception in the row for Christians, the proportion of the males afflicted is considerably higher than that of the females. This feature suggests that, if so far as the returns adequately reflect congenital blindness, the usual experience, that congenital defects are more prevalent among males than among females, is valid for Palestine.

It will also be observed that the proportion of those blind from birth to the total population and to the blind population increases from south to north, that is from the areas, where eye disease is most prevalent, to the areas where it is least prevalent. This fact leads at once to the heart of the problem.

221. The sociological and economic problem of blindness is a combination of two problems. There is the problem of the blind population who are blind from birth or from very early years numbering about 33 per hundred thousand persons of all communities, who are, practically in all cases, incurable; and there is the problem of the blind population of over eight hundred persons per hundred thousand who acquire eye disease by external infection leading to blindness in ever greater proportions as age advances.

The blindness with which the second problem is concerned calls for sanitary and medical measures, and could, no doubt, in large measure be reduced, if the people living in the villages could be given the means of a sanitary life in properly ventilated houses, and could be compelled to maintain a good minimum standard of cleanliness, domestic and personal, as that is understood in Europe. In any event, the prevalence might be diminished if early treatment were made easily available throughout rural areas, and if the people could be induced regularly to follow a prescribed regimen in the early stages of ophthalmic trouble. The people themselves, however, present the most serious difficulties. They tend to become apathetic: they expect miracles from eye-drops and, since no miracle happens, they neglect the troublesome routine which curative treatment, without surgical interference, requires. This problem is, then, of considerable magnitude, and the solution requires long vision and the steady patient application of a comprehensive scheme planned at each stage many years in advance of the actual executive work of prevention and cure.

The first problem, that of blindness from birth, is not so serious, and calls for consideration mainly of the economic maintenance of the sufferers. In so far as the returns contain elements of eye-disease acquired in early years after birth, the persons afflicted belong properly to the class of sufferers discussed in the preceding paragraph. Congenital blindness, however, is not usually susceptible of curative measures, and the problem in respect of those sufferers demands different treatment. The following table reveals that the proportion of persons born blind to the blind population becomes steadily smaller as age advances:

NUMBER OF MOSLEMS BORN BLIND PER
100 BLIND MOSLEMS AT EACH AGE.

Age	Number born blind per 100 persons blind.
1	2
0 - 5	21
5 - 10	11
10 - 15	12
15 - 20	14
20 - 25	8
25 - 30	6
30 - 35	5
35 - 40	5
40 - 45	6
45 - 50	3
50 - 55	2
55 - 60	4
60 - 65	1
65 - 70	2
70 -	1

The irregularities in the second column are due to distortions in the original returns of ages. It is unnecessary to graduate the figures since it is perfectly clear that the problem of congenital blindness assumes ever smaller proportions in relation to the totally blind as the years advance. The problem of those who are made blind by disease is a continuous problem throughout life, and demands

an appropriately continuous solution: the problem of congenital blindness begins at birth and, provided that economic security is assured, the problem disappears as the sufferers grow older provided that they have a gainful occupation. Hence blind children should be taught in the early years of life suitable occupations of economic value. Fortunately, in this country the duty of maintaining and protecting infirm dependants remains a very strong tradition. If that tradition can be fortified by the provision of facilities, through schools and other institutions, for training blind dependants so that they may contribute to their support, the economic problem presented by this class of the population assumes manageable proportions.

222. It is no part of the functions of a census authority to make recommendations as to policy. It is his duty to reveal unemotionally the state of facts revealed by the people's own declaration about themselves. On the other side, if in a general report he enter into an ultimate statistical analysis of the material, he may obscure, except for specialists, the real significance of the statistics which he is discussing. An ultimate analysis demands special reports intended for those who are primarily engaged in an intimate and active relation with the human material from which the statistics are drawn. Final observations.

The brief descriptive notes given in this section relating to blindness, combined with a study of the absolute and relative statistics found elsewhere in this Report, should suffice to make plain the urgent character of the problem of this affliction. It is not only urgent in itself, but also in comparison with the other infirmities of economic character about which information was sought at the census.

While there are no comparative figures in Palestine against which it is possible to measure the progress of the decline of eye disease; and while, as has been pointed out in the introductory remarks to this chapter, institutional statistics may be misleading on this point, it is abundantly clear that the order of the infirmity in Palestine is greatly higher now than that of the same infirmity in Egypt. Palestine and Egypt show a prevalence of the disease far greater than that in any other country in the world of which statistics are available. That the serious conditions revealed can be meliorated is evidenced by the comparative figures given below for Egypt and Cyprus during the last twenty to thirty years:

TOTAL BLINDNESS IN CYPRUS PER 10,000 PERSONS.

Year of census	Both sexes	Males	Females
1901 ...	73	76	70
1922 ...	52	54	49
1921 ...	42	42	42

TOTAL BLINDNESS IN EGYPT PER 100,000 PERSONS.

Year of census	Both sexes	Males	Females
1917 ...	1,223	1,082	1,363
1927 ...	776	730	820

TOTAL BLINDNESS IN PALESTINE PER 100,000 PERSONS.

Year of census	Religion	Both sexes	Males	Females
1931	All religions	843	709	981
	Moslems	1,061	883	1,245
	Christians	564	462	666
	Jews	139	149	131

The best comparison between Egypt and Palestine is a comparison between Egypt and the Moslems of Palestine. It will be seen that conditions in Palestine today are worse by 37 per cent. than those in Egypt in 1927.

It has been pointed out that the prevalence of the disease varies inversely as the rainfall, and that it is not only the rainfall *per se* that is the natural preventive of the disease. The consequences of rainfall, including water available, for all purposes, and luxuriant vegetation acting as a controller of dust, seem to be definitely associated with absence of eye diseases.

It may very well be that ophthalmia, like malaria, is the note of an economically poor country and that prosperous economic life would, of itself, reduce the force of this unfavourable economic influence. Such a possibility is suggested by the statistics of the communities, since those, who, in the past, were least susceptible to change by European influences, are those who suffer now most greatly from the affliction. The statistics of Egypt support that view. The improvement in the incidence of eye-disease in that country is associated with a comprehensive scheme of ophthalmological medicine, but that association may not necessarily be direct, since the improvement in the situation as regards eye-disease and the provision of medical facilities both occur during the period of notable increase in Egyptian prosperity. Growth of prosperity certainly gives the means for providing remedial measures of both medical and sanitary character: it is, however, possible that the important element in the improvement of conditions of blindness is due primarily to better standards of life following the growth of prosperity and that the medical function accelerates a natural process, varying directly with the growth and decline of wealth. It is worth remarking that Egypt, in geographical structure, is unique, consisting as it does of a long, narrow river valley bounded on both sides by hot desert climatic regions. The climate does not partake of the agreeable feature of the Mediterranean type. Nevertheless, in spite of that fact, a most emphatic achievement has been registered in the reduction of eye disease in the country. Organized irrigation has not only improved the physical environment of the people but has led to economic development on a large scale. The fact that in Palestine, the Jericho sub-district, with no rainfall but with perennial irrigation, shows a comparatively trivial prevalence of eye-disease¹ represents a phenomenon on a minute scale similar to that of the Nile valley. The southern regions of Palestine partake of both the Mediterranean and the hot desert types of climate and, in that respect, have better fortune than Egypt: but they lack water, the annual rainfall being not conserved and, in any case, inadequate. It may, therefore, be hoped that the development of a close system of agriculture, based on perennial irrigation from the supplies of subsoil water, the existence of which is credibly suspected in the Beersheba sub-district, may, of itself, adjust a balance unfavourably weighted by Nature against the inhabitants, and so supply the means of a radical improvement in the incidence of eye diseases.

Apart, therefore, from practical measures for dealing with the immediate disease, there is hope that a carefully fostered economic development of agricultural life in the southern regions of Palestine will substantially diminish, if not eliminate, the fertile sources of ophthalmia in the country.

Note on Dr. Strathearn's special inquiry into eye-disease and social conditions in twelve villages in Palestine. July, August, September, 1932.

I have explained that, on receiving my draft section concerning the statistics of blindness yielded by the census, Dr. J. C. Strathearn, C.B.E., M.D., Warden of the Order of St. John of Jerusalem, decided that it was necessary to undertake an inquiry in villages selected at random in order to obtain exact diagnoses of the various ophthalmic disorders, and also to ascertain how far eye-diseases and social conditions in villages were associated.

¹ But see footnote to paragraph 214 above. The view there stated does not necessarily conflict with that given above: but if the people of Jericho are immune in respect of eye diseases, the example of Jericho is irrelevant in a discussion concerning the value of economic prosperity.—E.M.

Dr. Strathearn examined more than 10,000 persons and the crude results of his inquiry are given in the following tables:—

TABLE I.

Comparison between the absolute returns of blindness at the Census 18 November 1931, and a sample examination conducted in July, August and September, 1932, by Dr. J. C. Strathearn, Warden of the Order of St. John of Jerusalem British Ophthalmic Hospital.

Sub-district and villages	Census population	Sample population	Totally blind						Blind of one eye						
			Census			Sample			Census			Sample			
			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	
Gaza Sub-district :															
Barqa	600	572	6	2	4	11	4	7	38	20	18	38	19	19	
Batani Gharbi	667	653	13	6	7	18	7	11	35	14	21	35	11	24	
Isud	3,140	2,339	91	35	56	103	42	61	155	78	77	198	77	121	
Jabalya	2,425	†2,135	49	16	33	45	10	35	132	50	82	*145	41	101	
Nazla	944	†684	29	12	17	24	11	13	72	33	39	59	22	29	
Tulkarm Sub-district :															
Baqa al Gharbiya	1,640	1,525	10	5	5	19	8	11	28	19	7	†45	23	21	
Baqa ash Sharqiya	330	319	3	1	2	4	1	3	9	6	3	17	6	11	
Jatt	780	803	1	...	1	6	...	6	17	9	8	24	14	10	
Nazlat'Isa	261	268	1	1	...	6	1	5	4	2	2	5	3	2	
Zeita	1,165	1,052	14	6	8	21	9	12	22	12	10	46	22	24	
Totals	7,776	6,883	188	71	117	201	74	127	432	195	237	*467	170	294	
	4,176	3,967	29	13	16	56	19	37	78	48	30	†137	68	68	
Grand Total	11,952	10,850	217	84	133	257	93	164	510	243	267	§604	238	362	

*3 not recorded by sex. †1 not recorded by sex. §4 not recorded by sex.

‡Does not include a section of a Beduin tribe which had moved since the census.

TABLE II.—*continued.*
BLINDNESS BY AGE, SEX AND CONJUGAL CONDITION
(in Gaza and Tulkarm districts)

Dr. Strathearn's examination of a sample population.

DISTRICT	Age	BLIND OF ONE EYE											
		Males						Females					
		Persons	Unmarried	Married	Divorced	Widowed.	Not recorded	Persons	Unmarried	Married	Divorced.	Widowed	Not recorded
	15	16	17	18	19	20	21	22	23	24	25	26	
G A Z A	Total	169	54	109	...	6	...	298	32	192	2	68	4
	0-1	2	2	...	...	...	...	1	1	...	...	...	...
	1-2 ... ..	...	...	...	...	...	...	2	2	...	...	...	...
	2-3	2	2	...	...	...	...	2	2	...	...	...	...
	3-4	2	2	...	...	...	...	1	1	...	...	...	...
	4-5	1	1	...	...	...	...	2	2	...	...	...	...
	0-5	7	7	...	...	...	...	8	8	...	...	...	...
	5-10	13	13	...	...	...	...	10	9	...	...	1	...
	10-15	9	9	...	...	...	...	4	2	2	...	...	...
	15-20	18	16	2	...	...	...	18	6	11	...	1	...
	20-25	9	7	2	...	...	...	21	3	18	...	...	...
	25-30	15	1	14	...	...	...	48	3	42	...	3	...
	30-35	7	...	7	...	...	...	15	...	13	...	2	...
	35-40	17	...	17	...	...	...	60	...	51	...	9	...
	40-45	16	...	16	...	...	...	26	1	19	...	6	...
	45-50	20	1	18	...	1	...	33	...	21	1	11	...
	50-55	19	...	17	...	2	...	29	...	12	1	16	...
	55-60	10	...	8	...	2	...	13	...	2	...	11	...
	60-65	5	...	5	...	...	...	5	...	1	...	4	...
	65-70	2	...	2	...	...	...	1	...	...	...	1	...
70 & over	2	...	1	...	1	...	3	...	...	...	3	...	
Not recorded	...	...	...	...	...	...	4	...	...	...	...	4	
T U L K A R M	Total	68	23	39	...	6	...	69	17	20	...	31	1
	0-1 ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	1-2 ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	2-3 ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	3-4 ... ..	...	...	...	...	...	...	1	1	...	...	...	...
	4-5	1	1	...	...	...	...	...	...	...	...	...	...
	0-5	1	1	...	...	...	...	1	1	...	...	...	...
	5-10	3	3	...	...	...	...	2	2	...	...	...	...
	10-15	5	5	...	...	...	...	3	3	...	...	...	...
	15-20	4	4	...	...	...	...	4	4	...	...	...	...
	20-25	10	6	4	...	...	...	1	...	1	...	...	...
	25-30	11	4	6	...	1	...	6	3	2	...	1	...
	30-35	6	...	5	...	1	...	2	1	1	...	...	...
	35-40	7	...	5	...	2	...	13	...	10	...	3	...
	40-45	2	...	2	...	...	...	2	...	2	...	...	...
	45-50	4	...	4	...	...	...	9	2	...	...	7	...
	50-55	10	...	8	...	2	...	7	1	...	...	6	...
	55-60	2	...	2	...	...	...	11	...	4	...	7	...
	60-65	1	...	1	...	...	...	1	...	...	...	1	...
	65-70	1	...	1	...	...	...	1	...	...	...	1	...
70 & over	1	...	1	...	...	...	5	...	...	...	5	...	
Not recorded	...	...	...	...	...	...	1	...	...	...	...	1	

PALESTINE
TOTALLY DEAF

- REPRESENTS
50-100 INFIRM PER 100,000 PERSONS
- 100-150 " "
- 150-200 " "
- 200-250 " "

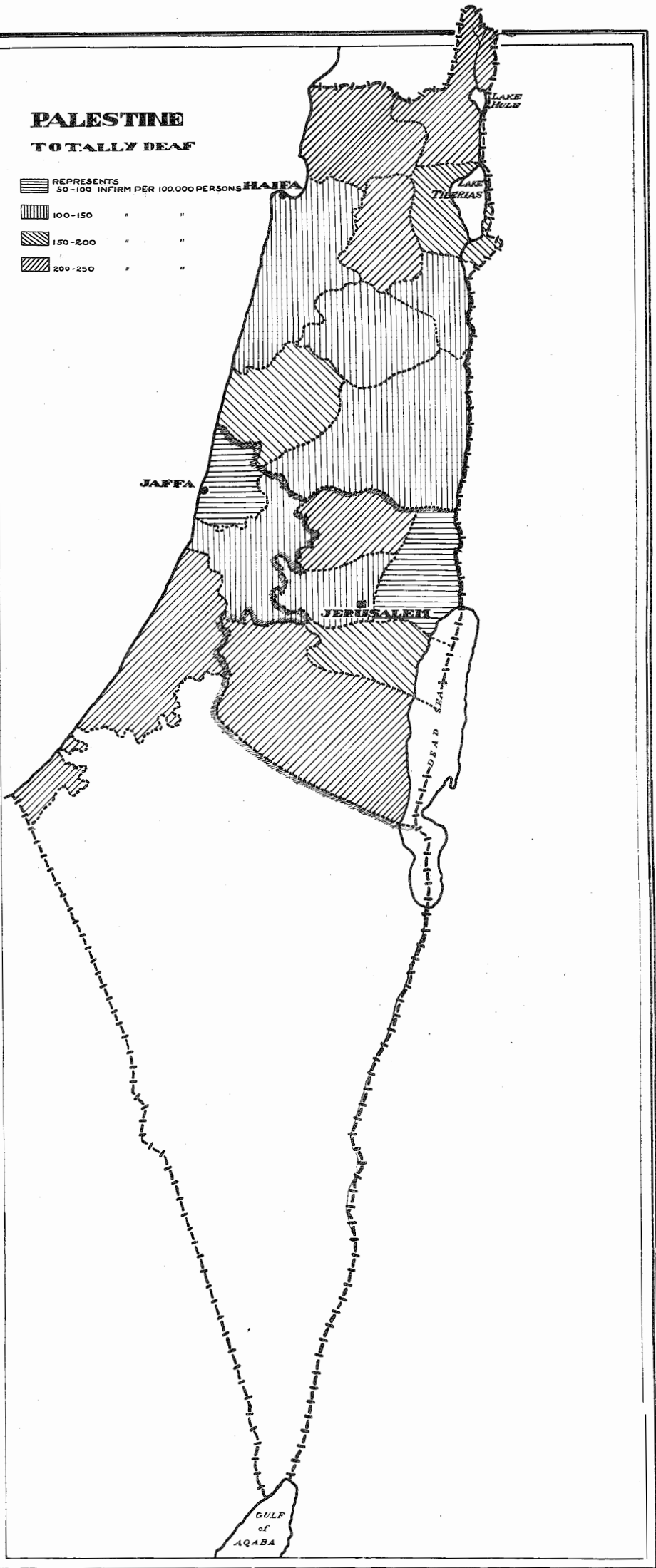
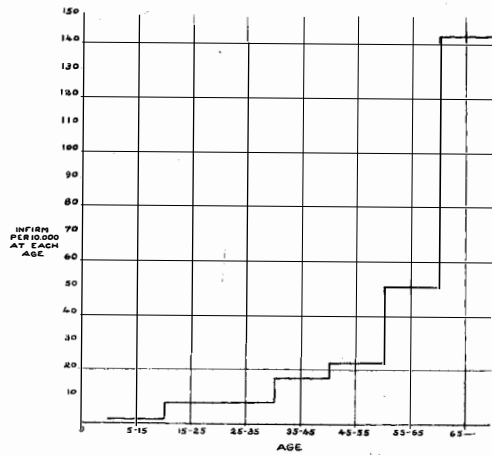


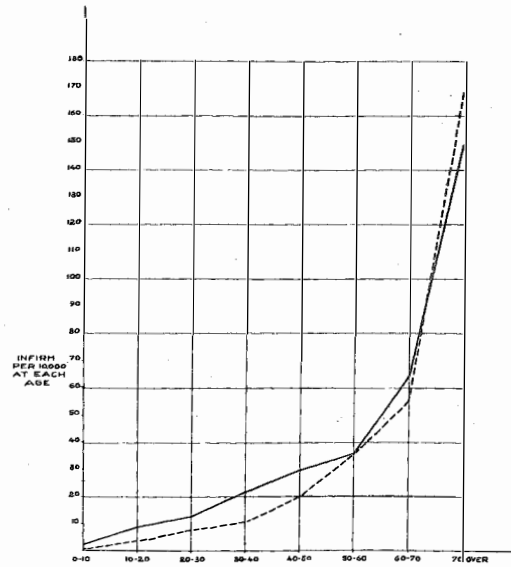
DIAGRAM No. 36

**INFIRMITIES - MOSLEMS
DEAFNESS
FEMALE**



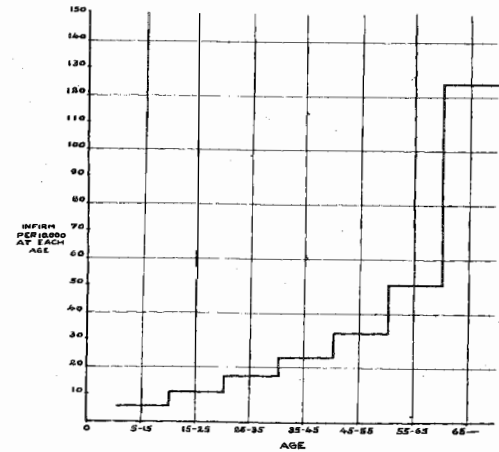
AGE	FEMALE
0-5	-
5-15	2
15-25	8
25-35	17
35-45	20
45-55	23
55-65	51
65+	143

**INFIRMITIES MOSLEMS
DEAFNESS (TOTAL)**



AGE	MALE	FEMALE
0-10	3	1
10-20	9	4
20-30	13	8
30-40	22	11
40-50	30	20
50-60	36	36
60-70	64	55
70+	150	169

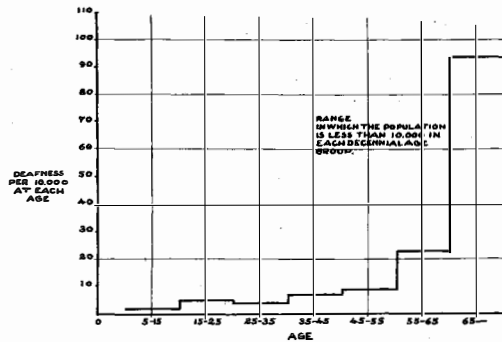
**INFIRMITIES - MOSLEMS
DEAFNESS
MALE**



AGE	MALE
0-5	1
5-15	4
15-25	11
25-35	17
35-45	24
45-55	33
55-65	51
65+	125

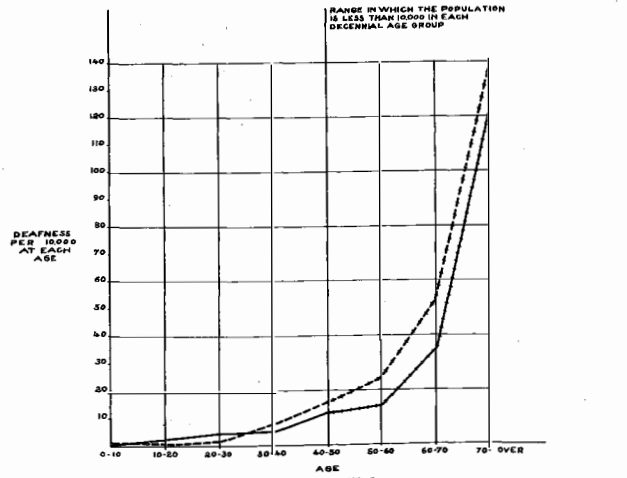
DIAGRAM No. 37

**INFIRMITIES - JEWS
DEAFNESS
MALE**



AGE	MALE
0-5	-
5-15	2
15-25	5
25-35	6
35-45	(7)
45-55	(9)
55-65	(23)
65-	(94)

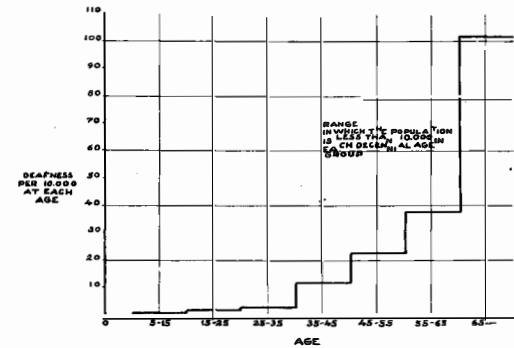
**INFIRMITIES - JEWS
DEAFNESS**



MALE ——— FEMALE - - - - IN AGE GROUPS WHERE THE POPULATION IS LESS THAN 10,000

AGE	MALE	FEMALE
0-10	0.4	0.9
10-20	2.2	0.7
20-30	4.3	1.9
30-40	5.0	8.0
40-50	(11.5)	(15.7)
50-60	(4.3)	(24.5)
60-70	(24.6)	(52.7)
70-	(21.0)	(37.0)

**INFIRMITIES - JEWS
DEAFNESS
FEMALE**



AGE	FEMALE
0-5	1
5-15	1
15-25	2
25-35	3
35-45	(12)
45-55	(23)
55-65	(38)
65-	(102)

DIAGRAM No. 38

I have not had the time to sort, tabulate and analyse the diagnostic and social material collected. This will no doubt be done in the course ; and I may be permitted to express the hope that the valuable results obtained will be incorporated in a professional paper to be published at later date. So far as I am concerned at the present, it is enough to point out that the crude results indicate that the errors in the census returns lie on the side of understatement of blindness, so that the situation is rather worse than that indicated in the census statistics. I understand that Dr. Strathearn has formed the opinion that improvements in the conditions of domestic life and in village sanitation are essential if the affliction is to be effectively reduced in intensity—E.M.

DEAFNESS.

Preliminary observations.

223. It is by no means common practice to collect statistics of total deafness through the agency of a census. On the contrary, in only a few countries has the attempt been made, and it is not apparent that results of utility have been obtained.

Three reasons may be advanced against inquiry into deafness through a census : first, while deafness is definitely an economic disability to the sufferer, it cannot be classed in that aspect with insanity, blindness or deaf-mutism ; secondly, the causes of deafness are numerous and idiosyncratic, so that a statistical investigation of deafness has emphatically less precision than those investigations of infirmities which are the effects of a few easily classifiable causes ; and, thirdly, as with blindness, only emphatically more so, the range of deafness is wide, so that declarations of total deafness have no precision and can give little light on questions concerned with what may be called economic deafness.

Two considerations, however, led to the inclusion of a question as to deafness in the census taken in Palestine in 1931. The first was concerned with a medical interest. There has been during the last few years in Palestine a noticeable increase in the incidence of catarrhal diseases of the throat and nose, and it was thought that a general survey of subjective declarations of deafness throughout the country might supply a basis for subsequent inquiry as to the nature of deafness in the country in relation to catarrhal troubles. The second consideration was concerned only with the desire of the census authority to obtain as accurate information as possible concerning deaf-mutism. There is no doubt that in all countries, where the censal inquiries have sought data as to deaf-mutism, the resultant statistics have been obscured by the inclusion of imbeciles at the early ages of life and of very deaf persons in the late and senile ages. It was hoped that the inclusion of a question as to deafness might, if it gave no useful basis for medical research, assure the omission of a large proportion of the aged deaf, who are, in strictness, not deaf-mutes, from the returns of deaf-mutism. It will be seen in the following section, in which deaf-mutism is discussed, that this hope was not realized.

Arguments for and against the desirability of including information as to economic infirmities among the *quaesita* of a census may or may not carry conviction, but there need be no hesitation in refusing to ascribe the virtue of utility to statistics of deafness and deaf-mutism obtained through a general census.

The general statistics.

224. The number of persons deaf per hundred thousand in Palestine is 159 of both sexes, the proportion of males being 167 and of females 151 per hundred thousand of the respective sexes. In the religious communities the prevalence of deafness is slightly wider among Christians than among Moslems, the proportion among Jews being rather more than one half of the proportions in the other communities.

The geographical distribution does not show great variation as between districts, Jerusalem district coming first with 169 persons deaf per hundred thousand, the Northern district second with 166, and the Southern district last with 141. It is worth noting that this district distribution suggests that the

affliction is commoner in the hill-country than in the plains. It is, indeed, remarkable that the distribution by sub-district gives the maxima and minima of prevalence shown in the following table :—

Sub-district	Number of deaf per 100,000 persons.
MAXIMA	Over 200
Nazareth Sub-district ...	245
Acre Sub-district ...	230
Safad Sub-district ...	214
Hebron Sub-district ...	213
Ramallah Sub-district ...	207
Gaza Sub-district ...	204
MINIMA	Below 100
Jaffa Sub-district ...	96
Jericho Sub-district ...	89
Beersheba Sub-district ...	64

Of the six sub-districts giving maximum intensities four definitely lie in the higher altitudes of Palestine. Of the three sub-districts giving minimum intensities, two are not greatly above sea-level while one, Jericho sub-district, is well below sea level. The average intensities lying between 100 and 200 give no evidence of a tendency in regard to altitude. The evidence of the statistics as regards altitude cannot be regarded as conclusive, but it may be said that there is a slight indication that the proportion of deaf persons living in higher altitudes is greater than the proportion in lower altitudes. It is a fact that most deaf persons, who are not totally deaf, experience an increase of deafness with an increase of the height at which they live. It must not be assumed that this effect is due necessarily to climatic changes. An increase in altitude is accompanied by a reduction in atmospheric pressure, so that the immediate effect on the ears of a change of altitude is mechanical. Further, mechanical effects are caused by the fluctuations of pressure due to meteorological changes which, at higher altitudes, are usually more pronounced than at lower levels.

225. Whatever be the effects and counter-effects of changes of altitude on the persons, normal of hearing or deaf, it is not possible to found on them an argument that the mechanical phenomena, just discussed, have any bearing on the problem of deafness among people born and living constantly at the same high altitude. It is known that altitude causes differences in anatomical structure as between hill and plain peoples, and demands adjustments of structure in a people who have settled on high levels having been formerly habituated to low levels. One of the points for consideration is, therefore, the possibility of measurable differences between the structure of the organ of the ear among hill people and that of people of the plains. If there be such differences, are they of the character that lead to reduction in hearing?

The nature of such an inquiry is medical and the statistics of the census can be of little assistance in the investigation. It is, perhaps, significant that mammalian animals living at high altitudes depend for their existence on keen vision rather than on scent or hearing.

226. Since the medical object of the census question was to obtain information which could be investigated in relation to catarrhal diseases, research is now required on standard statistical lines before any conclusion of value can be reached. A large proportion of catarrhal diseases are not notifiable, so that a proper inquiry into the problem could only be made in the investigation of representative samples of the population in various localities. It is of interest, however, to note that some catarrhal affections are the *sequelae* of the infectious disease measles,

which is notifiable to the proper authority under legal enactments. A statistical examination of the notified cases of measles during the last ten years threw no light on the problem. The attempt to investigate on those lines proved abortive, first, because it is difficult to obtain reliable figures of the intercensal populations in certain sub-districts; and, secondly, because the notifications of cases are defective, a proportion of cases in some localities being not notified.

Age
distribution.

227. The age distributions of deafness among Moslems and Jews are shown in Diagrams Nos. 37 and 38. These distributions, like those of blindness, are typical of infirmities the force of which intensifies with advancing years. Deafness, acquired after birth, is, therefore, a disease of age. In the cases both of the Moslems and Jews the age curves for males and females rise gently until the age of 55 years is reached, when both curves assume steep gradients. While, in the case of the Moslems the proportion of deaf females exceeds that of the males only after the age of 65 years, the proportion of deaf females among the Jews exceeds that of the males for all ages after 30 years. It is probable that this striking difference between the two sets of curves represents a factor of real significance, best investigated as a possible difference between foreign-born and native-born women, particularly since the age, at which the proportion of females deaf among the Christians begins to exceed that of the males, is about 45 years.

Subsidiary Table No. IX shows that at the age 35–45 years there are 737 deaf Moslems females to every 1,000 deaf Moslem males: 167 deaf Christian females to 1,000 deaf Christian males, and 1,571 deaf Jewesses to 1,000 deaf Jews. [The proportions in this table show distortions due to the more emphatic preferences of females for certain ages, but it is not without significance that these proportions increase in the later age-groups, and always and decidedly against the women of the communities which have the larger proportions of foreign-born in their constitution.

It follows that any investigation into the relation between altitude and deafness, or catarrhal diseases and deafness, should first exclude such forms of deafness as may be characteristic of foreign-born women as distinct from the native-born. The forms of deafness that are common to both groups and to the males are those forms in which altitude and catarrhal disorders may be factors¹.

228. Briefly, then, the census statistics as to deafness are of little value, since they associate a heterogeneous population with an affliction with a heterogeneity of causes of very different origins. The only way to further knowledge is to pursue statistical research among the different groups of population, each with its own sub-groups of sufferers from deafness in its various forms.

The
statistics as
to deafness
from birth.

229. If any further evidence were needed to emphasize the unreliability of the statistics of deafness, it is given by the statistics of the deaf from birth. Persons born totally deaf are, in the nature of things, deaf-mutes; children, in very early years, who become deaf are also properly to be considered as falling within the population of deaf-mutes. The actual difficulties connected with a declaration of deafness from birth will be discussed in the following section relating to deaf-mutism. All that need be said here is that the younger sufferers declared as deaf from birth should have been entered into returns for deaf-mutes; while the older sufferers either have forgotten when they became deaf and have found it simpler to declare that they had been deaf since they were born, or should have been declared as deaf-mutes.

¹ I do not wish to imply that these factors are not of importance in the forms of deafness which I have suggested should first be excluded. If, as the figures may suggest, otosclerosis is more common among foreign-born women than among native-born women, it should be excluded on the grounds that it is an affliction mainly peculiar to women. The tendency of modern thought is to seek the origin of the complaint in deficiencies of organic minerals connected with the female reproductive functions, into which the life of civilization appears to introduce disorder. Hence the suggested distinction between foreign-born and native-born women.—E.M.

DEAF-MUTISM.

230. By deaf-mutism, strictly understood, is meant the congenital want if the sense of hearing which, in the absence of special institutions such as are only beginning to make their appearance in Palestine, necessarily prevents the sufferer from learning to make those precisely articulated sounds known as rational speech. The intention was, of course, to enter only those persons congenitally afflicted. The statistics, however, show that there was great confusion in the minds of those making the returns or entering them in their behalf. According to the returns in Palestine as a whole 52 males and 35 females per hundred thousand are deaf and dumb from birth. These proportions are somewhat smaller than those obtaining in European countries some of which are given in the following table:—

General.

NUMBER OF DEAF-MUTES PER 100,000 OF POPULATION IN DIFFERENT COUNTRIES.

Country	Year	Both sexes	Males	Females
England and Wales	1911	42	47	37
Scotland	1911	51	54	49
Ireland	1911	72	80	63
Germany	1900	86	95	78
Italy	1910	80	91	69
Norway	1920	73	78	68
Sweden	1920	84	93	75
Latvia	1920	188	229	155
Rumania... ..	1899	82	102	62
Cyprus	1921	...	150	147
Egypt	1927	...	187	118
Palestine :	1931			
All religions		48	52	35
Moslems		45	58	33
Christians		58	52	64
Jews		26	27	25

The statistics are, however, most unreliable. In the first place, deaf-mutism is mainly a congenital defect : yet, as was shown in the preceding section concerning deafness, returns have been made under deafness that should, strictly, have been made under deaf-mutism. It is, of course, extremely difficult for laymen to know if a child is born deaf. The layman certainly cannot distinguish between congenital deaf-mutism and idiocy ; and it is natural that parents should regard the evidences of either affliction as symptoms of retarded development rather than the positive signs of deficiencies preventing the child from partaking of the fullness of human life. Moreover, a child, who becomes deaf before he has acquired a vocabulary of normal currency, falls into the class of deaf-mutes rather than that of the deaf ; and persons, in advanced years of life, may lose that degree of precision in articulation which marks the difference between intelligible and unintelligible speech. The persons forming this last class ought, in strictness, to be returned in the category of the deaf and not in that of the deaf-mutes. All, these sources of error are apparent in the statistics of deaf-mutism when they are examined carefully in relation to the statistics of deafness. There can be, therefore, no great expectation of validity in the statistics presented.

231. The local distribution of the deaf-mute shows extraordinary variations. Taking the district as the unit, the affliction is most common in Jerusalem district where 52 persons per hundred thousand suffer from it. The Southern district yields 33 persons and the Northern district 45 persons per hundred thousand. Taking the sub-district as the unit, Beersheba shows 387 persons, Jaffa 22 persons, and Jericho 30 persons per hundred thousand returned as deaf-mutes. Since the populations in Beersheba and Jericho sub-districts are very small, there is

Local distribution.

PALESTINE
DEAF & DUMB

- REPRESENTS
20-40 INFIRM PER 100,000 PERSONS
- 40-50 " "
 - 50-60 " "
 - 60-80 " "

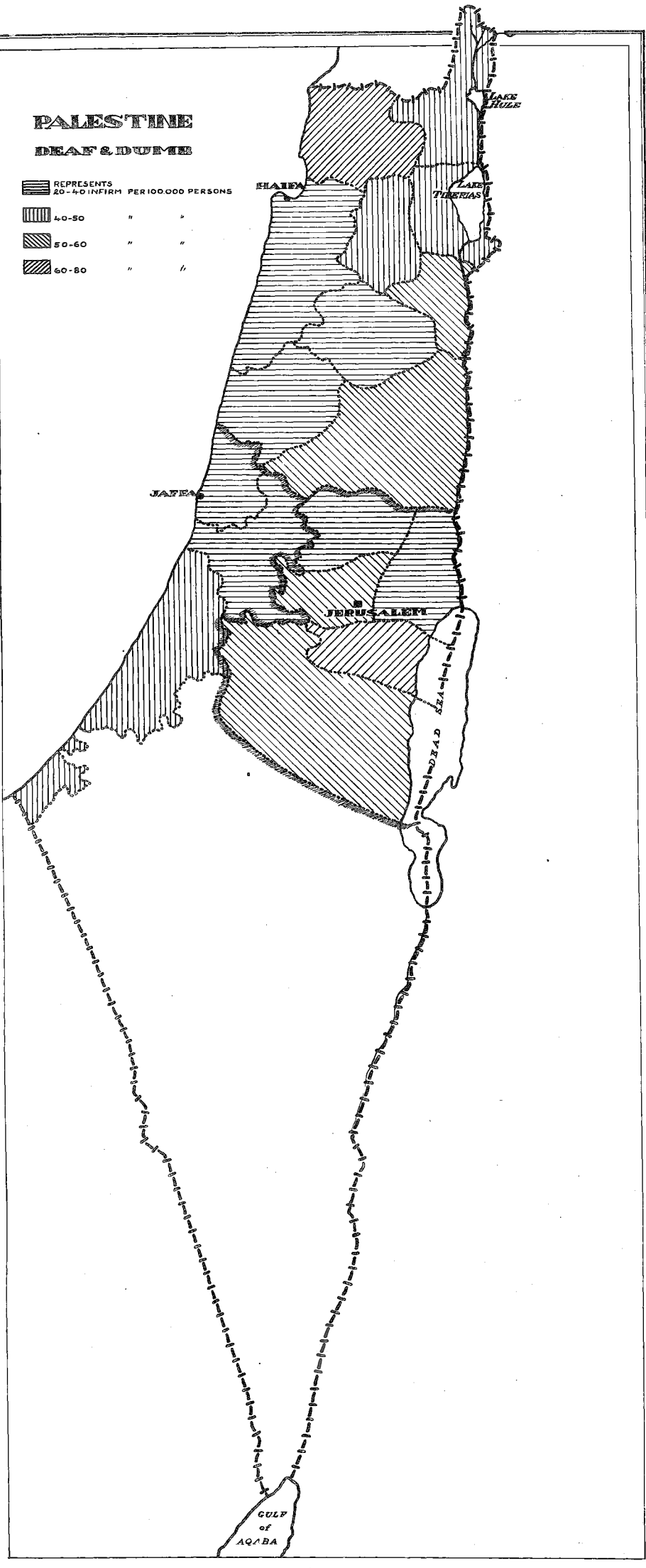
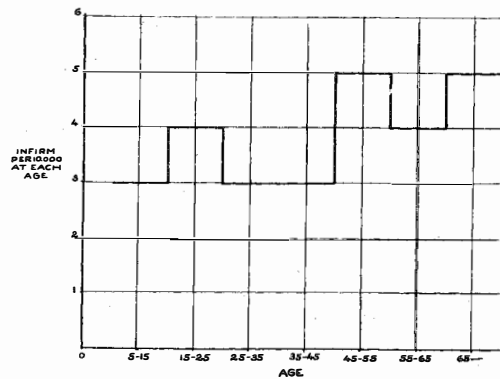


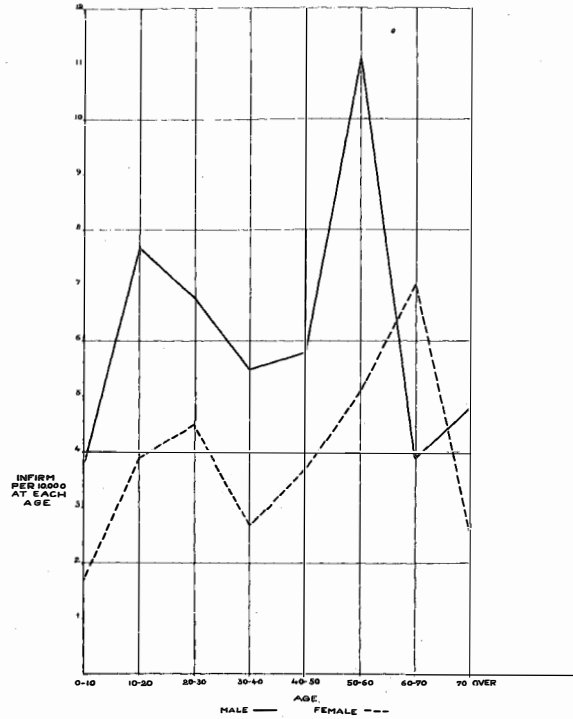
DIAGRAM No. 39

**INFIRMITIES - MOSLEMS
DEAF MUTISM
FEMALE**



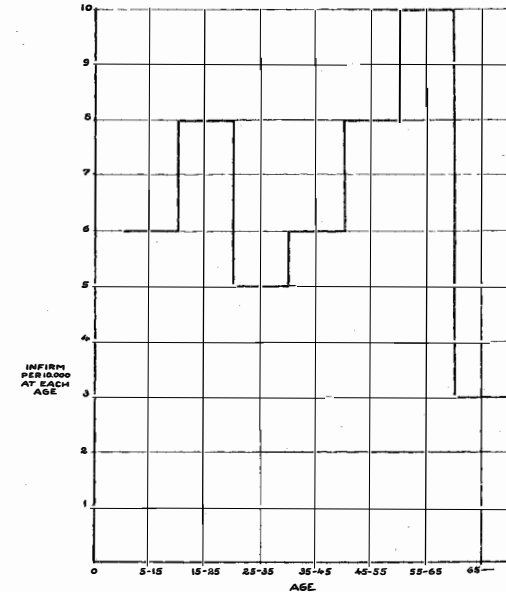
AGE	FEMALE
0-5	1
5-10	3
10-15	4
15-20	3
20-25	3
25-30	3
30-35	3
35-40	3
40-45	3
45-50	3
50-55	3
55-60	3
60-65	3
65+	3

**INFIRMITIES - MOSLEMS
DEAF MUTISM**



AGE	MALE	FEMALE
0-10	3.9	1.7
10-20	7.7	3.9
20-30	6.8	4.5
30-40	5.8	2.7
40-50	5.8	3.7
50-60	11.1	5.1
60-70	3.9	7.0
70+	4.8	2.5

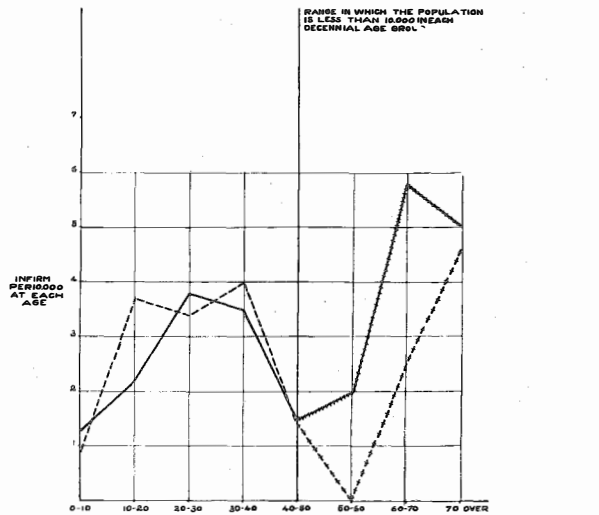
**INFIRMITIES - MOSLEMS
DEAF MUTISM
MALE**



AGE	MALE
0-5	2
5-10	6
10-15	6
15-20	6
20-25	5
25-30	6
30-35	6
35-40	6
40-45	6
45-50	6
50-55	6
55-60	6
60-65	6
65+	3

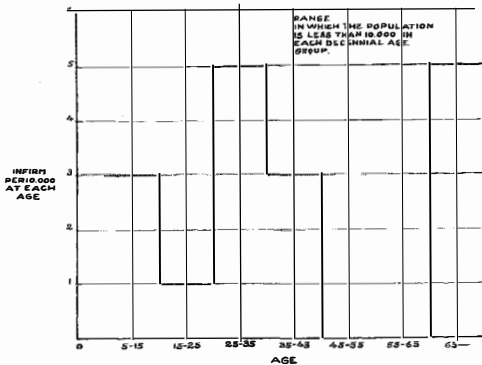
DIAGRAM No. 40

**INFIRMITIES - JEWS
DEAF MUTISM**



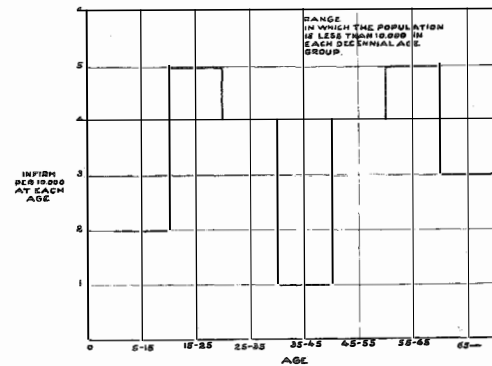
AGE	MALE	FEMALE
0-10	1.3	0.9
10-20	2.5	3.7
20-30	3.5	3.4
30-40	3.5	4.0
40-50	(1.8)	(1.4)
50-60	(0.9)	0
60-70	(6.8)	(6.8)
70—	(8.0)	(4.4)

**INFIRMITIES - JEWS
DEAF MUTISM
FEMALE**



AGE	FEMALE
0-5	-
5-15	0
15-25	1
25-35	2
35-45	(3)
45-55	(-)
55-65	(-)
65—	(5)

**INFIRMITIES - JEWS
DEAF MUTISM
MALE**



AGE	MALE
0-5	-
5-15	2
15-25	5
25-35	4
35-45	(1)
45-55	(6)
55-65	(2)
65—	(4)

good reason for not accepting the proportional figures relating to them as valid. The remaining sub-districts yield intensities of deaf-mutism ranging from 35 to 90 persons per hundred thousand of population.

It is fairly well established that in Europe and the United States of America deaf-mutism is found in local contact with cretinism and goitre; and it has always been a popular, as well as a scientific, belief that water is the vehicle of the pathogenic organism¹.

The statistics of Palestine yielded by the census of 1931 throw no light on such beliefs. Apart from the sub-districts of Beersheba and Jericho there are no striking differences between proportions of deaf-mutes declared in the sub-districts using water from streams or lakes, water from subsoil springs, water raised to land level from subsoil natural reservoirs, or water from rainwater cisterns.

232. It is sometimes believed that deaf-mutism, like insanity, is often the result of consanguineous marriages. Tests, on the lines adopted in the section on insanity, give no support for this theory. The sub-districts Jerusalem and Bethlehem must be excluded from the tests, because it is in these places that deaf-mutes have the greater opportunity for economic support through charitable agencies; and because, in the case of Jerusalem and other large towns, they may have hope either of treatment or of training in the language of lip motions. In point of fact, the sub-district of Jenin, which shows a fairly high proportion of insanity returns a low proportion of deaf-mutism: while Acre sub-district, making allowance for the number of insane among the prisoners in the Central Prison at that place, returns moderate proportions of insanity and deaf-mutism that are nearly equal. On the other side, the Jaffa sub-district with its urban population and its lower risks of consanguineous marriages returns low proportions both for insanity and deaf-mutism².

Distribution
by sex and
age.

233. In all countries males suffer to a greater extent than females from this infirmity, as, indeed, from all defects of a congenital nature. This experience is, however, not reflected in the statistics of all sub-districts; and it may be accepted that the statistics in these sub-districts are unreliable, not that the general experience is invalid in these areas. The diagrams show that the prevalence of deaf-mutism among Moslems is greater in early life between the ages of 10 and 20 years for males, and 20 and 30 years for females; and that its prevalence rises again at the ages of 50 to 60 years for males and 60 to 70 years for females. The Jewish curves have somewhat similar features, but, as in the case of the statistics of insanity, the proportions are not reliable after the age of 45 years. Since deaf-mutism is mainly a congenital defect, and the persons suffering from it relatively short-lived, the lowest age should be that of maximum prevalence, and there should be a steady fall in the proportions of each succeeding age-period. The reason why the proportions below the age of 10 years are smaller than in the next higher age group is, obviously, that parents are unwilling to admit the existence of this defect in their children so long as there is hope that it is merely a case of retarded development. The rises in the curves after the age of ten years are due

¹The reputed association between deaf-mutism, goitre and cretinism (a special variety of idiocy) has so far not been established. Cretinism results from absence of secretion from the thyroid gland. Excess of the hormone causes exophthalmic goitre. It has been shown that the secretion contains a large proportion of iodine, so that these afflictions are the results of failure to maintain organically the proper content of iodine. So far as I am aware, no such conclusion has been reached in regard to deaf-mutism. Goitre, cretinism and deaf-mutism are found at all altitudes and in all climates; but there appears to be a well-marked incidence of the afflictions along certain water-courses. All that can be suggested, therefore, is that, if the ultimate cause of these afflictions be a water-borne organism, its pathogenic effects are idiosyncratic, being sometimes deficiency in thyroid gland secretion, sometimes excess in thyroid gland secretion, and sometimes deaf-mutism. Such a suggestion of widely different consequences from a single cause has, on *a priori* grounds, a very high degree of improbability. Nevertheless, the whole subject of causation is full of difficulty, which is emphasized in the field of theoretical probability.—E.M.

²See footnote to paragraph 200 above, in which I discuss the opinion of Dr. Hermann and Dr. Salzberger that I minimize unduly the chances of consanguineous marriages in urban populations.—E.M.

to the fact that, in spite of a special opportunity to make returns of deafness as distinct from deaf-mutism, a high proportion of cases of senile deafness has been included under deaf-mutism.

The statistics are, therefore, quite unreliable : but it is probably not unsafe to make the inference that deaf-mutism is not specially associated with different modes of life, such as characterize the religious communities or urban and rural populations. If the affliction is attributable to external physical causes, those causes must be sought in localities where the affliction is commonest. Palestine is so small a country that the variations in the intensity of the disease are insignificant, except in the instances of the sub-districts of Beersheba and Jericho, where the populations are too small for reliable results ; and it would seem that an inquiry into deaf-mutism must embrace a far larger area of territory in the Middle East if significant variations in prevalence are to be obtained.

234. It has already been explained that the returns for persons said to be deaf-mute from birth are unreliable. Since the affliction is mainly congenital the great proportion of deaf-mutes should have been returned as suffering the defect from birth. The difficulty of recognizing the condition, and distinguishing it from imbecility in the early ages, is combined with a natural reluctance to declare the defect so long as it may be regard by parents as retarded development. The resulting statistics are, therefore, entirely misleading. The returns, however, show that the affliction is more frequent among males than among females and they are, therefore, in accordance with the general experience of the incidence of congenital defects in the two sexes.

**Statistics of
deaf-mutism
from birth.**

235. The problem of deaf-mutism in Palestine is certainly not more serious than in other countries, even though there are grounds for supposing that the number of deaf-mutes exceeds the number yielded by the census. Clearly, the deaf-mute is very heavily handicapped in regard to economic subsistence. Most countries either provide, from public funds, institutions where lip-reading is taught, or utilize and encourage private institutions to undertake the task. In India, Burma and Ceylon considerable success has attended these efforts to give deaf-mutes a human place in the human world into which they were born. In Palestine there was, until recently, such an institution at Tel Aviv ; and plans are being made by private persons at the present time to give facilities in Jerusalem for the training of deaf mutes.

**Final
observations.**

Note by Dr. M. Salzberger¹.

THE INTRODUCTION.

In the introduction it is shown how errors may be introduced into statistics and how the need for their interpretation may arise. As far as deaf-mutes are concerned the following may be said: congenital deaf-mutes are probably seldom declared as mentally afflicted, because the parents and relatives of deaf-mute children are specially anxious to draw attention to the extraordinary mental abilities of these children, and in so doing, indicate very accurately what the defect is. I have experienced this even in the case of quite uneducated parents. This error on this account therefore will not amount to much. The second objection, too,—that old people who have become deaf and whose speech has become so changed as a result of deafness can easily be confused with deaf-mutes—is not conclusive, because according to experience changes in speech in the case of people who have become deaf in old age are never so great as to make these people resemble the dumb. The last source of error, however, must be acknowledged as important. We are here concerned with those cases where the parents do not wish to declare the child as a deaf-mute, because they still hope that the child will improve or be cured by some doctor. It must be added that all such statistics, in which *medical* questions are put and answered by laymen, will always contain errors, and the data will be approximately correct only if doctors themselves acted as census officials, and themselves asked these questions of the public who are to be enumerated. Up to the present day, however, such a system has nowhere been applied, and is impossible in the circumstances of Palestine. This situation could only be improved by interesting specialist doctors in the instruction of officials acting in future censuses.

THE CHAPTER ON DEAFNESS.

There were found to be 150 deaf persons per hundred thousand of the population or 167 per hundred thousand males and 151 per hundred thousand females. The reason for the larger number of males is only explicable if we assume that deafness in Palestine is mostly of the congenital hereditary, degenerative type, which, as has often been shown here, afflicts the male sex more often than the female. This assumption proves to be mostly true among the native population. Comparison of these numbers with statistics taken in other countries would be useful.

It is not surprising that fewer deaf people are found in Palestine among Jews than among others, because we are here dealing with an immigrant population which is of an age at which deafness is not marked. Moreover, the fact has to be taken into consideration, that, in the selection of Jews for immigration into Palestine a certain health control is exercised by Palestine Jewish Immigration offices in other countries. Furthermore, inhabitants of this country belonging to other nations are, like the Arabs themselves, old peoples, who, owing to their secluded life, have had little new blood introduced into their race for thousands of years and would be expected to give a high percentage of deafness in any series of statistics. It is therefore not surprising that Jews, who elsewhere usually contribute the highest percentage of deaf persons, should in Palestine be in a better position than others. It may also be assumed that, as time passes, these numbers will change to the disadvantage of the Jews with the increasing age of the present immigrants unless the continuous immigration of young people keeps these numbers constant in the immediate future.

In the next section, in which the influence of altitude on hearing is discussed, and in which, judging by numbers a difference in hearing was found between hill and plain dwellers, there is an important suggestion for inquiry and anatomical and physiological research into these newly discovered facts.

In the next section there is an indication that an inquiry was directed towards ascertaining the effect of catarrhal affections of the air-passages on the incidence of deafness among those living in climatic conditions conducive to catarrh. This, however, will not be of great significance so far as this question is concerned, because although catarrh of the air-passages may cause hardness of hearing, as a result of catarrh of the Eustachian tube or chronic inflammation of the middle ear, it very rarely causes deafness.

¹ Dr. Salzberger submitted these notes after the Census Report was in the press and I have, therefore, been unable to comment on his suggestions.—E.M.

The next section deals with the proportions at different ages and in the different religions. If we take the numbers referring to children and compare them with the statistics of the Department of Public Health in respect of infectious diseases among children we shall find to what extent these diseases injure hearing in childhood.

It is clear from the figures given that in old age the number of deaf persons increases. The explanation is, first, that in old age the so-called physiological acute hardness of hearing occurs which appears in these statistics as deafness, and secondly, that the persons hard of hearing when young, are not usually classed as deaf, while in old age, when hardness of hearing is emphatic, are counted as deaf. It is clear from this that deafness is just as difficult for a layman to estimate as blindness, and that exact instructions should be given to officials carrying out the census. We assume that, under "deaf", deaf in both ears was understood. If we wish to learn something about public health from statistics it will be necessary in future to introduce the classification deaf in one ear, and also hard of hearing in both ears and in one ear; moreover, in order that the economic capacity of a people may appear in statistics a further question should be put: "Was the person suffering from hardness of hearing (whether in one or both ears) obliged to give up his occupation?"

The second paragraph of this section deals with comparative statistics of the different religions. The fact that the curve for hardness of hearing among Jewish women remains fairly even until the age of 20 and rises between 20 and 30 then remains stationary until 60, shows only too plainly that we are here concerned with the disease otosclerosis, which occurs often among Jews. Otosclerosis begins with the first menstruation, and may, in the few years between the first menstruation and the age of 20, develop into acute hardness of hearing. Between 20 and 30 women bear children, and childbirth is injurious to hearing by otosclerosis. After the age of 60, of course, hearing grows worse owing to age. The fact that deaf women out-number deaf men is only too clear a proof that otosclerosis is in question, since this disease is known to be much milder in men than in women, who are made worse by childbirth and lactation. The Moslems in Palestine suffer mostly from hereditary congenital degenerative deafness of the acoustic nerves. Since its tendency is hereditary and progressive it is intelligible that men are attacked in larger numbers than women according to the oft-quoted law that men are more affected by heredity than women. It is true that childbirth has a very adverse effect on the nerve deafness, but this seems to be out-weighed by the stronger hereditary tendency of men. In order to study this question properly from statistics, tables should be prepared in respect of women who are hard of hearing or have become deaf—

- (i) Whether married.
- (ii) If so, the number of childbirths undergone.

The doctor would, on the basis of such statistics, be enabled to advise women coming to time with hardness of hearing of this type at its onset.

The next section on deafness from birth should, as has been mentioned, be omitted, since deafness from birth has the same meaning as deaf-mutism.

DEAF — MUTISM.

Deaf-mutism is only a congenital disease in 50 per cent. of cases; in the rest it is acquired. A layman, if he is a relative can distinguish between an idiot and a deaf-mute. Once more attention is drawn to the fact that those who have become deaf in old age seldom exhibit such changes in speech that they are regarded as deaf-mutes.

The table "deaf children" should include only those from the age of 7 years and upwards, since all children who are deaf before the age of 7 years remain mute or become so, and should therefore be enumerated as deaf-mutes.

It is interesting that in Switzerland, where *struma* and cretinism are endemic, there are only 33 per hundred thousand deaf-mutes. With regard to marriage between relations, it has been shown that inter-marriage is a considerable factor in the incidence of deaf-mutism. Many marriages between relatives take place for economic reasons particularly among Jews and rich Moslems and also among native Christians. This happens in the towns. In the villages marriages among relatives may occur for the same reasons.

A deaf-mute who is able to read remains deaf-mute. There can scarcely be any question of medical treatment for this disease, since up to now it is incurable. The observation that statistics for towns are more favourable can only be met by the assumption that treatment of inflammatory aural diseases and infectious diseases which may lead to deafness is more effective in towns than in the country.

With regard to the concluding note, if deaf-mute institutions be created it will be easier to obtain more accurate data about deaf-mutes. Deaf-mute institutions are of social importance, since the afflicted population is thereby trained to some occupation. We know, for instance, that in Germany all the deaf-mutes who left the schools between 1900 and 1910 found work and were self-supporting. The following are the deaf and dumb schools in Palestine :—

- (i) A French school which has existed in Jerusalem for several years.
- (ii) A school which was at Tel Aviv for two years and which was given up in October 1932 because a well-endowed school was opened in Jerusalem by the Alliance Israelite.
- (iii) For the last year another school has been carried on in Jerusalem by two English ladies.

RECOMMENDATIONS.

- I. To make tables for deaf-mutism by age from 1 to 12 years by individual years. This is important in order to classify children having regard to instruction in schools. Also it is important to arrange these tables according to place of habitation as well as according to religion. All this is important so that the children may be found more easily.
- II. *Christians*. Unreliable designation, since the most various sects and races coming from different countries are classed together here. Should be entirely omitted.

SUBSIDIARY TABLE No. 1.

Number of persons afflicted per 100,000 of population.

DISTRICT AND RELIGION	INSANE			BLIND OF ONE EYE			TOTAL BLIND			DEAF			DEAF-MUTE		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DISTRICT :															
PALESTINE	83	93	73	1,968	2,092	1,841	843	709	981	159	167	151	43	52	35
Southern District ...	52	63	39	2,802	2,867	2,734	1,137	946	1,338	141	149	133	33	41	25
Jerusalem District ...	136	131	140	2,115	2,254	1,976	871	739	1,002	169	173	165	52	55	49
Northern District ...	74	92	55	1,252	1,407	1,092	606	512	703	166	177	156	45	57	33
RELIGION :															
ALL RELIGIONS	83	93	73	1,968	2,092	1,841	843	709	981	159	167	151	43	52	35
Moslems	65	79	51	2,512	2,672	2,348	1,061	883	1,245	173	185	160	45	58	33
Christians	109	124	95	1,215	1,210	1,220	564	462	666	177	172	182	58	52	64
Jews... ..	141	134	151	260	287	232	139	149	131	93	81	106	26	27	25

SUBSIDIARY TABLE No. 1(a).

Number of persons afflicted per 100,000 of population and per 100,000 of each sex. Study of certain sub-districts in the Southern District.

SUB-DISTRICT	INSANE			BLIND OF ONE EYE			TOTALLY BLIND			DEAF			DEAF-MUTE		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PALESTINE	83	93	73	1,968	2,092	1,841	843	709	981	159	167	151	43	52	35
SOUTHERN DISTRICT ...	52	63	39	2,802	2,867	2,734	1,137	946	1,338	141	149	133	33	41	25
Gaza Sub-district ...	54	73	36	4,662	4,562	4,761	1,933	1,596	2,266	204	216	195	41	51	32
Jaffa Sub-district ...	54	61	47	1,205	1,348	1,051	393	342	447	96	107	84	22	23	21
Ramleh Sub-district ...	45	60	28	3,570	3,775	3,348	1,563	1,301	1,848	150	149	150	28	40	16

SUBSIDIARY TABLE No. II.

Number of persons afflicted from birth per 100,000 of population.

DISTRICT AND RELIGION	INSANE			BLIND OF ONE EYE			TOTALLY BLIND			DEAF			DEAF-MUTE		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DISTRICT :															
PALESTINE	2.1	2.6	1.5	13.5	13.9	13.2	32.6	37.5	27.6	6.6	9.2	4.0	13.2	16.9	9.
Southern District ...	0.7	1.3	...	15.4	12.2	18.8	25.6	28.2	22.9	5.6	9.0	2.0	8.5	10.9	6.1
Jerusalem District ...	1.2	1.6	0.8	14.8	16.3	13.2	29.1	37.4	21.0	5.0	4.7	5.4	12.0	14.8	9.3
Northern District ...	3.7	4.4	3.0	11.3	13.5	9.0	40.0	44.5	35.4	8.3	12.1	4.5	17.4	22.7	12.0
RELIGION :															
Moslems	2.3	2.8	1.8	16.7	17.	16.4	43.1	49.7	36.4	8.8	12.2	5.3	15.7	21.0	10.3
Christians	3.3	6.5	...	10.9	10.9	11.0	14.2	13.1	15.4	1.1	2.2	...	9.8	10.9	8.8
Jews	0.6	...	1.2	2.9	3.4	2.3	1.7	2.3	1.2	1.1	1.1	1.2	3.4	3.4	3.5

SUBSIDIARY TABLE No. II(a).

Number of afflicted from birth per 1,000 afflicted.

DISTRICT AND RELIGION	INSANE			BLIND OF ONE EYE			TOTALLY BLIND			DEAF			DEAF-MUTE		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DISTRICT :															
PALESTINE	24.7	28.3	20.0	6.9	6.6	7.2	38.6	52.8	28.2	41.5	55.0	26.3	305.4	328.1	271.1
Southern District ...	12.7	20.2	...	5.5	4.2	6.9	22.6	29.8	17.1	39.6	60.0	15.2	257.4	265.6	243.2
Jerusalem District ...	8.6	11.8	5.5	7.0	7.2	6.7	33.5	50.5	20.9	29.9	27.0	32.9	231.3	267.6	190.5
Northern District ...	49.6	47.1	54.0	9.0	9.6	8.2	66.0	86.9	50.4	50.2	68.4	28.8	385.9	398.3	363.6
RELIGION :															
Moslems	35.3	35.8	34.5	6.7	6.4	7.0	40.6	56.3	29.2	50.9	65.8	33.1	347.1	364.5	315.3
Christians	30.0	52.6	...	9.0	10.0	10.0	25.2	28.3	23.1	6.2	12.6	...	169.8	208.3	137.9
Jews	4.0	...	7.6	11.0	11.9	10.0	12.3	15.3	8.8	12.3	14.1	10.9	130.4	125.0	136.3

SUBSIDIARY TABLE No. III.

Number of persons afflicted per 10,000 of each age period.

All religions.

AGE	INSANE		BLIND OF ONE EYE		TOTALLY BLIND		DEAF		DEAF-MUTE	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
ALL AGES ...	9	7	209	184	71	98	17	15	5	4
0 - 5 ...	1	...	37	29	9	8	1	1	2	1
5 - 15 ...	3	2	105	73	18	14	5	2	6	4
15 - 25 ...	13	9	188	135	39	34	10	6	7	4
25 - 35 ...	19	13	225	219	52	58	14	7	5	4
35 - 45 ...	17	10	331	332	90	108	22	15	6	4
45 - 55 ...	12	13	445	366	129	190	28	23	6	4
55 - 65 ...	7	13	488	377	247	295	46	50	8	3
65 - ...	9	13	509	395	484	762	123	138	4	4

SUBSIDIARY TABLE No. IV.

Number of persons afflicted per 10,000 of each age period.

Moslems.

AGE	INSANE		BLIND OF ONE EYE		TOTALLY BLIND		DEAF		DEAF-MUTE	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
ALL AGES ...	8	5	267	235	88	125	19	16	6	3
0 - 5 ...	1	...	45	36	11	10	1	...	2	1
5 - 15 ...	3	2	134	94	22	17	6	2	6	3
15 - 25 ...	13	7	262	194	53	45	11	8	8	4
25 - 35 ...	15	7	316	295	70	77	17	8	5	3
35 - 45 ...	13	8	417	416	113	136	24	17	6	3
45 - 55 ...	11	8	551	460	160	249	33	23	8	5
55 - 65 ...	7	9	622	492	318	402	51	51	10	4
65 - ...	7	9	614	475	579	961	125	143	3	5

SUBSIDIARY TABLE No. V.

Number of afflicted per 10,000 persons of each age period.

Jews.

AGE	INSANE		BLIND OF ONE EYE		TOTALLY BLIND		DEAF		DEAF-MUTE	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
ALL AGES ...	13	15	29	23	15	13	8	11	3	3
0 - 5...	...	...	3	1	1	...	...	1	...	...
5 - 15...	5	1	7	5	3	2	2	1	2	3
15 - 25...	14	12	20	8	7	4	5	2	5	1
25 - 35...	27	27	23	20	12	10	4	3	4	5
35 - 45...	(21)	(15)	(56)	(36)	(19)	(13)	(7)	(12)	(1)	(3)
45 - 55...	(7)	(30)	(66)	(61)	(16)	(17)	(9)	(23)	(4)	(...)
55 - 65...	(7)	(32)	(94)	(80)	(56)	(23)	(23)	(38)	(5)	(...)
65 - ...	(18)	(35)	(88)	(94)	(119)	(137)	(94)	(102)	(3)	(5)

() brackets signify that the proportions are calculated on actual populations in the age-group when these actual populations number less than 10,000.

SUBSIDIARY TABLE No. VI.

Number afflicted per 10,000 persons of each age period.

Christians.

AGE	INSANE		BLIND OF ONE EYE		TOTALLY BLIND		DEAF		DEAF-MUTE	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
ALL AGES ...	12	10	121	122	46	67	17	18	5	6
0 - 5...	...	...	(12)	(8)	(3)	(2)	(...)	(2)	(...)	(...)
5 - 15...	(4)	(1)	(32)	(32)	(9)	(15)	(1)	(...)	(11)	(11)
15 - 25...	(8)	(12)	(87)	(71)	(20)	(36)	(9)	(1)	(3)	(10)
25 - 35...	(24)	(17)	(116)	(121)	(31)	(35)	(15)	(10)	(4)	(6)
35 - 45...	(33)	(19)	(177)	(211)	(48)	(54)	(26)	(4)	(11)	(7)
45 - 55...	(27)	(17)	(282)	(238)	(74)	(79)	(21)	(22)	(...)	(2)
55 - 65...	(4)	(4)	(346)	(224)	(137)	(155)	(58)	(65)	(4)	(7)
65 - ...	(10)	(7)	(452)	(366)	(402)	(468)	(131)	(163)	(5)	(...)

() brackets signify that the proportions are calculated on actual populations in the age-group when these actual populations number less than 10,000.

SUBSIDIARY TABLE No. VII.

Proportion per mille of each sex by conjugal condition and infirmity.

RELIGION	CONJUGAL CONDITION	NUMBER PER MILLE OF EACH SEX OF THE					
		Population	Insane	Blind of one eye	Totally blind	Deaf	Deaf-mute
MOSLEMS	Unmarried ...Males ...	610	713	376	335	256	764
	Females ...	470	402	236	281	167	459
	Married ...Males ...	370	168	571	571	662	197
	Females ...	414	322	578	293	382	333
	Divorced ...Males ...	3	22	5	6	12	9
	Females ...	4	52	9	16	6	82
	Widowed ...Males ...	17	97	48	88	70	30
	Females ...	112	224	177	410	445	126
JEWS	Unmarried ...Males ...	570	771	233	358	155	792
	Females ...	484	489	144	221	87	500
	Married Males ...	410	154	692	504	732	208
	Females ...	414	236	528	248	380	227
	Divorced ...Males ...	4	33	8	23	...	...
	Females ...	7	84	10	18	33	46
	Widowed ...Males ...	16	42	67	115	113	...
	Females ...	95	191	318	513	500	227
CHRISTIANS	Unmarried ...Males ...	664	807	281	321	316	667
	Females ...	542	744	350	488	217	897
	Married ...Males ...	321	158	665	509	557	292
	Females ...	325	140	324	162	109	34
	Divorced ...Males ...	1	17	7	...	...	...
	Females ...	2	23	14	10	...	...
	Widowed ...Males ...	14	18	47	170	127	41
	Females ...	131	93	312	340	674	69

SUBSIDIARY TABLE No. VIII.

Distribution of the infirm by age per 1,000 afflicted of each sex.

All religions.

AGE	INSANE			BLIND OF ONE EYE			TOTALLY BLIND			DEAF			DEAF-MUTE		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
0 - 5...	9	11	6	29	31	27	18	22	14	6	6	6	53	59	42
5 - 15...	73	85	57	100	115	82	42	59	29	49	73	22	257	273	235
15 - 25...	197	211	177	129	142	112	68	88	54	75	92	57	198	206	187
25 - 35...	321	338	300	194	180	209	113	123	105	114	139	86	177	154	211
35 - 45...	175	192	154	190	172	212	133	138	129	129	140	115	124	122	127
45 - 55...	110	89	137	154	155	154	142	132	150	120	122	118	86	83	90
55 - 65...	57	35	86	103	104	102	152	156	150	142	123	163	62	71	48
65 - ...	58	39	83	101	101	102	332	282	369	365	305	433	43	32	60

SUBSIDIARY TABLE No. IX.

Number of afflicted females per 1,000 afflicted males in main age-groups.

AGE	INSANE				BLIND OF ONE EYE				TOTALLY BLIND				DEAF				DEAF-MUTE			
	All religions	Moslems	Christians	Jews	All religions	Moslems	Christians	Jews	All religions	Moslems	Christians	Jews	All religions	Moslems	Christians	Jews	All religions	Moslems	Christians	Jews
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
ALL AGES .	763	624	754	1110	856	851	1000	794	1346	1365	1429	863	882	833	1051	1296	656	547	1208	917
0 - 5 ...	400	400	...	...	753	768	625	250	846	878	500	()	800	400	()	()	467	400	...	...
5 - 15 ...	513	654	250	250	606	593	935	667	673	626	1444	800	267	273	...	333	565	400	909	1667
15 - 25 ...	639	477	1250	913	677	682	694	424	820	780	1500	583	547	632	111	500	596	512	2667	250
25 - 35 ...	677	518	667	907	993	1004	989	783	1150	1101	1087	783	544	527	636	714	897	714	1333	1429
35 - 45 ...	614	608	667	650	1052	1053	1407	615	1253	1273	1318	667	722	737	167	1571	677	609	800	3000
45 - 55 ...	1171	786	778	4500	854	839	1042	1000	1534	1563	1320	1111	850	713	1286	2800	714	667	()	()
55 - 65 ...	1875	1273	1000	5000	838	836	795	950	1295	1338	1387	458	1168	1065	1385	1800	444	400	2000	()
65 - ...	1611	1400	1000	2167	870	839	1122	1207	1762	1799	1613	1308	1257	1239	1731	1226	1250	1600	()	500

N.B. (), empty brackets, signify that there were no returns for afflicted males in the age-group so that there is no number of afflicted males in the age-group with which to compare the number of afflicted females in the same age-group.

SUBSIDIARY TABLE No. X.

Distribution of the blind of one eye and totally blind by age per 1,000 afflicted of each sex.

Moslems.

AGE	BLIND OF ONE EYE			TOTALLY BLIND		
	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7
	1,000	1,000	1,000	1,000	1,000	1,000
0 - 5 ...	31	32	29	19	24	15
5 - 15 ...	104	122	85	42	61	28
15 - 25 ...	129	142	114	66	88	50
25 - 35 ...	196	181	213	112	121	106
35 - 45 ...	191	173	213	136	141	132
45 - 55 ...	153	154	152	147	135	155
55 - 65 ...	100	100	99	153	155	152
65 - ...	96	96	95	325	275	362

SUBSIDIARY TABLE No. XI.

Number of persons blind of one eye and totally blind per 1,000 of each age period.

Gaza Sub-district.

AGE	ABSOLUTE FIGURES						PER 1,000 OF EACH AGE			
	POPULATION		BLIND OF ONE EYE		TOTALLY BLIND		BLIND OF ONE EYE		TOTALLY BLIND	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
ALL AGES ...	46,792	47,293	2,135	2,252	747	1,072	45.6	47.6	16.0	22.7
0 - 5 ...	9,715	9,658	69	66	12	17	7.1	6.8	1.2	1.8
5 - 15 ...	11,235	9,736	244	186	40	22	21.7	19.1	3.6	2.3
15 - 25 ...	5,336	5,292	232	233	57	49	60.3	44.0	10.7	9.3
25 - 35 ...	6,470	7,811	361	457	74	104	55.8	58.5	11.4	13.3
35 - 45 ...	5,072	5,763	329	511	103	129	64.9	88.7	20.3	22.4
45 - 55 ...	3,878	3,845	352	349	83	168	90.8	90.8	21.4	43.7
55 - 65 ...	2,444	2,507	227	249	137	170	92.9	99.3	56.1	67.8
65 - 70 ...	744	618	66	46	51	63	88.7	74.4	68.5	101.9
70 - ...	1,898	2,063	165	155	190	350	86.9	75.1	100.1	169.7

SUBSIDIARY TABLE No. XII.

Distribution of the blind of one eye and totally blind per 1,000 afflicted of each sex by age.

Gaza Sub-district.

AGE	BLIND OF ONE EYE		TOTALLY BLIND	
	Males	Females	Males	Females
1	2	3	4	5
ALL AGES	1,000	1,000	1,000	1,000
0 - 5	32	29	16	16
5 - 15	115	83	54	20
15 - 25	151	104	76	46
25 - 35	169	203	99	97
35 - 45	154	227	138	120
45 - 55	165	155	111	157
55 - 65	106	110	184	159
65 - 70	41	20	68	59
70 -	77	69	254	326

CHAPTER XI.—OCCUPATIONS AND ORGANIZED INDUSTRY.

236. The most elaborate of the census compilations are those concerned with the occupational and industrial distributions of the population, and they cannot be rightly interpreted unless the definitions employed and the instructions given at the enumeration are fully comprehended. The occupational distributions arise from a complex of three census queries, and the industrial distributions are the result of combining two census questions. The three questions leading to the compilation of the occupational statistics were concerned with, first, the economic status of the person as an earner or a dependant; secondly, with the occupation from which he derived his principal livelihood; and, thirdly, with an occupation, if such there were, of gainful character which, however, was not the principal source of subsistence. The two questions leading to the compilation of industrial statistics were, concerned with, first, the economic status of a person as earner, and, secondly, with the organized industry, if such there were, within which the earner followed that occupation from which he derived his principal livelihood. Introductory.

237. The instructions to enumerators on these questions are, in effect, the definitions under which the various attributes were assigned to the persons enumerated. The complete set of instructions is given hereunder:— The detailed instructions and definitions.

Economic status:—For each person enter either ‘Earner’ or ‘Dependant’. A wife who does housework is a dependant. A son who helps in work in the fields but does not bring to his family additional wage either in money or in kind is a dependant. A son at school with a scholarship is a dependant. If any person be out of work at the time of the final enumeration enter ‘Earner’ or ‘Dependant’ as if the person were following his or her previous occupation. In cases in which persons are supported by organized charities or by remittances from abroad enter ‘Dependants’.

Means of subsistence—Principal occupation:—Enter the principal means of livelihood of all persons entered as ‘Earners’ in Column 12 whether they work or carry on business either personally or by means of servants or who live on rents or pension, etc. For a person entered as ‘Dependant’ in Column 12 enter the principal occupation of the person by whom the ‘Dependant’ is supported. If such dependant is supported by organized charity or through direct remittances from abroad enter ‘Remittances’.

Enter the exact occupation and avoid vague terms such as ‘service’, or ‘labour’, or ‘writing’.

For example distinguish between the person who derives his livelihood from the rent of houses from the person who derives his livelihood from the rent of agricultural land paid in money or in kind.

Or again, do not enter a general term such as ‘Agriculturist’ but distinguish between a cultivator—that is a person who is in actual occupation of land for agricultural purposes and cultivates such land himself either with or without the aid of his family or of agricultural labourers,—and an agricultural labourer—that is a person who derives his livelihood from being employed by a cultivator on the land from which the cultivator derives his livelihood. In all cases of agricultural occupations state the exact nature of the work, e.g. ‘General crops’, or ‘Oranges’, or ‘Bananas’, etc., etc., or ‘Pasture’, or ‘Stock-raising’, etc., etc.

“ If a person makes the articles he sells he should be entered as ‘ Maker and seller ’ of such articles. Women and children who work at any occupation which adds to family income by money or by kind should be entered in Column 12 as ‘ Earners ’. Women and children who work at any occupation which may help to increase the family income but does not bring in separate and regular wages in money or kind must be entered in Column 12 as ‘ Dependants ’.

“ Persons temporarily out of work should be returned under the principal occupation previously followed by them.”

“ *Means of subsistence—Subsidiary occupation*:—Enter the most important occupation which those persons, returned as ‘ Earners ’ in Column 12, pursue for at least three months in 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 for at least three months, the word ‘ boatman ’ will be entered in Column 13 and the word ‘ fisherman ’ will be entered in Column 14.

“ Distinguish as in Column 13 between those who derive a subsidiary livelihood from house rents and rents of agricultural land ; and between ‘ cultivators ’ and ‘ agricultural labourers ’.

“ If an earner has no subsidiary occupation enter X.

“ Dependants who help to support the family by subsidiary work for at least three months in the year, *e.g.* a wife who helps her husband in the fields as well as doing housework, or a son who helps his father in his principal occupation will be entered in this Column 14. Otherwise enter X for persons entered ‘ Dependants ’ in Column 12.”

“ *Industry*:—This Column is to be entered for managers, clerks, operatives or workmen employed in a factory, and for all persons returned as ‘ Earners ’ in Column 12 receiving salaries or wages from an employer or an organization as, for example, public administration, power or water companies. In such cases enter the name of the industry exactly, *e.g.* ‘ Mother-of-pearl ’, ‘ Cement manufacture ’, ‘ Bread-making ’, ‘ Public administration ’, ‘ Orange plantations ’, etc. For individual workers, not employed by others, and owners enter X.”

These instructions were followed by a set of supplementary rules designed to help and guide the enumerators and the general public as to the real intentions of the questions. These supplementary instructions are as follow:—

“ *Economic Status*:—Every person is either an ‘ earner ’ or a ‘ dependant ’. The fact that a person does actual work does not necessarily make him or her an ‘ earner ’. There is nearly always one person in a household whose death would have an important effect on the earning capacity and the means of subsistence of other members of the household. Such a person is an ‘ Earner ’. Other members of the household are ‘ earners ’ only if by their work they add an increment to the family income. Hence women and children will only be shown as ‘ earners ’ who help to augment the family income by regular work for which a return is obtained in cash or kind ; and women and children who help the husband and father in his work are not ‘ earners ’ but are ‘ dependants ’. If the wife adds to the income of the household by collecting firewood, say, and then selling it, she becomes an ‘ earner ’.

“ If a woman keeps house for her husband but does not earn actual wages she should be entered as ‘ dependant ’ in Column 12 and she should enter ‘ house-keeping ’ in Column 14 (Subsidiary Occupation).

“ ‘ Dependants ’ are supported either by an ‘ earner ’ in Palestine ; or by some person living and working in some country abroad ; or through grants made to them from time to time by some charitable organization.

“ Domestic servants in receipt of wages are always ‘ earners ’ . ”

“ *Means of Subsistence—Principal Occupations* :—An entry must be made in this column for every person whether such person is described as ‘ earner ’ or ‘ dependant ’ in Column 12.

“ The principal occupation of any ‘ earner ’ is that on which he relies mainly for his support, and from which he gets the larger part of his income.

“ A ‘ dependant ’ has no principal occupation ; but he is supported by some person or organization. If he is supported by a person residing in Palestine, then the principal occupation of that person is the occupation from which the ‘ dependant ’ derives his support. Enter that occupation. If the ‘ dependant ’ relies on the support of a person living abroad, then the means of support are provided by cheques, or money orders, or postal orders, etc. In such cases enter the word ‘ remittances ’. If the ‘ dependant ’ is maintained by some charitable organization such as an institution in Palestine or some system of distribution of funds enter the word ‘ remittances ’.

“ *Means of Subsistence—Subsidiary Occupations* :—This column is to be completed only for such ‘ earners ’ and ‘ dependants ’ who follow some occupation upon which they do not mainly rely for their support. Be careful to note that a subsidiary occupation is not to be entered unless it is followed for three months of the year at least.

“ ‘ Dependants ’ who help the ‘ earner ’ in his work *e.g.* in the fields may enter that work as a subsidiary occupation. Again ‘ dependants ’ who are supported mainly by ‘ remittances ’ may also have some regular occupation which will be entered in this column.

“ In some cases an ‘ earner ’ may have a principal occupation recorded in Column 13 and may also receive remittances from abroad : in such cases ‘ remittances ’ may be entered in this column.

“ Enumerators must be careful to state occupation in Columns 13 and 14 exactly. In the case of ‘ service ’ it is not enough to state ‘ Government service ’, ‘ Municipal service ’, ‘ Railway service ’, etc. The exact occupation followed must be given in full.”

“ *Industry* :—In this column only persons working in organized industries will be entered. Thus a carpenter employed by a furniture manufactory will be entered as ‘ carpenter ’ in Column 13 and ‘ furniture-making ’ in Column 15. A village carpenter working at home or a jobbing carpenter working for his own hand must not appear in Column 15 at all. Agricultural labourers should only be entered in this column when they are employed in some special branch of agriculture or other industry involving agriculture incidentally, or when they are employed by some person or company practising agriculture on a large scale. In the former case the name of the particular industry will be entered, *e.g.* ‘ dairy-farming ’, ‘ horse-breeding ’ : in the latter case the entry will be ‘ agriculture ’ . ”

It will be appreciated that the questions are, in essence, complex and that it was by no means easy to make them perfectly comprehended by either the enumerators or the general public. The enumerators were, however, given a course of instruction illumined by many representative cases from the districts in which they were working, and the results for principal occupations may be taken as substantially accurate. There is little to show how far the details of subsidiary occupations of earners are reliable, but such errors as there may be will be on the side of understatement. The occupations followed by female dependants are probably reliable save in regard to house management which is the occupation of most married women. The statistics of organized industries are probably not reliable.

238. The two main difficulties in the definitions and in the instructions were concerned with a variety of conceptions as to what was meant by "earner" and "dependant", and by "organized industry". All definitions in social matters must, to some extent, be arbitrary; and, in that character, they induce a sense of artificiality in a person endeavouring to answer questions founded on the definitions. In Palestine, a further difficulty arises in that some notions commonly current among western people are foreign to the ideas of eastern people. The social and economic measurements of Palestine are now inevitably determined by the standards of western world, and it was, therefore, necessary to use terms and definitions conforming to those standards¹. In western usage, an earner is a person supporting himself (usually entirely and, in any case, mainly) and possibly other persons, while a person who is not supporting himself mainly or entirely is a dependant. The experience of the enumeration in Palestine showed that fathers, whose sons assisted them in their work, found it difficult to think of certain of those sons as dependants. Wherever a boundary is drawn by definition, there is in social affairs a discontinuity on crossing the boundary, so that the number of cases described as "border-line" must always be considerable. In some instances, for example, an aged father may be assisting his adult sons, and, according to the definition, the sons are the earners while the father is a dependant: but this notion is, on the whole, repugnant to social opinion in that part of the population still dominated by the tradition of the patriarchal character of the father. Nevertheless, the criterion laid down as to the distinction between earner and dependant was enforced, so that, on the definition employed, that person only was an earner who added a positive increment to the family income. If a son merely assisted his father, he contributed to the family income by providing labour which, without him, would have caused additional expenditure: but such assistance was not regarded as contributing a positive increment to the income of the household. In a very real sense in a rural community such a son is regarded as an earner, but, for purposes of the census, he was counted as a dependant since he was not following a gainful occupation in the positive sense. If the arrangements had been otherwise, a possibly misleading conspectus of economic conditions, particularly in agriculture, might have been the result, and the inquiry might have lost its value. On the other hand, to have failed to record the occupations of those dependants who contribute to the resources of their households by labour, and not by positive increment of income, would also have led to an incomplete and possibly misleading conspectus of the economic life of the country. The device of having a two-fold question as to the means of subsistence thus serves two purposes: in the first place, it yields complete information as to personal occupations of the whole population: and, secondly, it presents in convenient form the precise relations inherent in the classes of population supported by the various forms of economic activity. The tabulations of principal occupations show how all persons, earners and dependants, are mainly supported; while the tabulations of subsidiary occupations show how the principal means of subsistence is bettered by additional income, secured by earners in a less profitable but gainful occupation, or by the saving of expenditure through the utilization of the unpaid labour of dependants following occupations in assistance of the principal earners. An additional advantage is secured through the device in that a dependant, who follows an occupation which adds no increment to the family income, can be classified without confusion as a working dependant, as distinct from those dependants, such as young children or the aged and infirm, who need support but are not able to contribute to it in any way. Thus, the answers to the three questions provide in combination a very complete record of the functional distribution of the whole population, their means of

¹ It is, for instance, usual to measure butter by weight: but in Cambridgeshire not long ago butter was measured by inches. There is nothing wrong with either standard, but the standard by reference to weight is universal because of its convenience, and it is confusing to employ unfamiliar measures. In similar manner, economic and social ideas prevalent in the western world are, in some respects, not yet current among eastern people, whose own ideas would be equally unfamiliar to people habituated to western conceptions.—E.M.

subsistence, and the relation of persons to their occupations and to their sources of livelihood, and also the relations among themselves regarded as earners, working dependants and simple dependants¹.

239. The difficulty surrounding the conception of organized industry lay in the meaning to be assigned to "organized". Discussion of the point will be detailed in a later section of this chapter, and it will suffice here to indicate that the difficulty was more apparent among the Arab part of the population. Primitive communities are not necessarily unorganized: indeed, most of them show marked signs of organization in the sense of social control and purposive direction; but the conception breaks down in forms of association that are not identical with the whole of the social unit. Hence it is that organization is understood in a political sense, but is not yet clearly comprehended in an economic sense². It is therefore not surprising that the actual returns were far from satisfactory. It is possible that the results may be regarded as a representative sample of industrial conditions; and, if that be so, the internal relations within industry may be validly exhibited in the proportional tables, even though the absolute statistics are deficient.

240. An accurate original record of occupations is a difficult and troublesome matter, but tabulation and classification of the details of that record are even more complicated. The scheme used in Palestine is practically identical with that used by the census authorities in India since 1911. That scheme was a modification of that proposed by Dr. Jacques Bertillon, the celebrated French statistician, which was approved by the International Statistical Institute in 1892 and commended for general adoption. The scheme is extremely logical and is sufficiently elastic to serve the local needs of any country; and it also provides a common basis for international statistical comparison for all countries, whether these be regarded as advanced or backward in economic development. Very briefly, occupations are divided into four classes and twelve sub-classes: within this framework are two series of sub-divisions which are named orders and groups respectively. For most countries the number of orders is between 55 and 60, but the number of groups, defining precisely the occupations followed in each country, varies considerably from country to country. The distribution by groups, therefore, gives detailed information as to the functional distribution of the population in a country; the distribution by orders may be used for purposes of comparison between country and country where conditions are comparable, while the distributions of sub-classes and classes form a permanent framework within which strict comparison between one country or set of countries with another is always possible. Departures from the general scheme have, of course, been made from time to time to suit conditions peculiar to various countries³, but the general principle of all occupational classifications is the same, and it is not difficult, in most cases, to arrange the modified schemes on a common basis.

Classification
of
occupations.

It will be appreciated that the minor heads of the Bertillon classification can be increased or reduced in number according to local requirements without destroying the strict comparability of the figures so long as all the occupations are classified, with or without further sub-division, under the main heads of the

¹ At most modern censuses these distributions are correlated with the age distribution. It is, however, quite impracticable to tabulate, within reasonable time, occupations with age except by means of mechanical sorting.—E.M.

² It is remarkable, however, how quickly the extension of the idea of organization in economic regions is taking place among Arabs. Naturally, the phenomenon is confined at present to the larger commercial enterprises.—E.M.

³ The classification now used in the United Kingdom is an example. That classification is suited to the conditions of a highly complex and intensely organized industrial country, whereas the original Bertillon classification is better adapted to the circumstances of Palestine.—E.M.

scheme. The adaptation of the Bertillon scheme to Palestine was arranged on the following basis :—

Class A.—Production of raw materials.

Sub-class I.—Exploitation of the surface of the earth.

Order 1.—Pasture and agriculture.

- (a) Ordinary cultivation.
- (b) Growers of special products and market gardening.
- (c) Forestry.
- (d) Raising of farm stock and stud service.
- (e) Raising of small animals.
- (f) Agricultural machines service.

Order 2.—Fishing and hunting.

- (a) Nomads.

Sub-class II.—Extraction of minerals.

Order 3.—Mines.

Order 4.—Quarries of hard rocks.

Order 5.—Salt, etc.

Class B.—Preparation and supply of material substances.

Sub-class III.—Industry.

Order 6.—Textiles.

Order 7.—Hides, skins and hard materials from the animal kingdom.

Order 8.—Wood.

Order 9.—Metals.

Order 10.—Ceramics.

Order 11.—Chemical products properly so called and analogous.

Order 12.—Food industries.

Order 13.—Industries of dress and the toilet.

Order 14.—Furniture industries.

Order 15.—Building industries.

Order 16.—Construction of means of transport.

Order 17.—Production and transmission of physical forces (heat, light, electricity, motive power, etc.)

Order 18.—Industries of luxury and those pertaining to literature and the arts and sciences.

Order 19.—Industries concerned with refuse matter.

Order 20.—Other industries.

Sub-class IV.—Transport.

Order 21.—Transport by water.

Order 22.—Transport by road.

Order 23.—Transport by rail.

Order 24.—Post office, telegraph and telephone services.

Sub-class V.—Trade.

Order 25.—Banks, establishments of credit, exchange and insurance.

Order 26.—Brokerage, commission and export.

Order 27.—Trade in textiles.

Order 28.—Trade in skins, leather and furs.

- Order 29.—Trade in wood.
- Order 30.—Trade in metals.
- Order 31.—Trade in pottery.
- Order 32.—Trade in chemical products.
- Order 33.—Hotels, cafés, restaurants.
- Order 34.—Other trade in foodstuffs.
- Order 35.—Trade in clothing and toilet articles.
- Order 36.—Trade in furniture.
- Order 37.—Trade in building materials.
- Order 38.—Trade in means of transport.
- Order 39.—Trade in fuel.
- Order 40.—Trade in articles of luxury and those pertaining to letters and the arts and sciences.
- Order 41.—Trade in refuse matter.
- Order 42.—Trade in other sorts.

Class C.—Public administration and liberal arts.

Sub-class VI.—Public force.

- Order 43.—Army and Air Force.
- Order 44.—Navy.
- Order 45.—Police.

Sub-class VII.—Public administration.

- Order 46.—Public administration.

Sub-class VIII.—Professions and liberal arts.

- Order 47.—Religion.
- Order 48.—Law.
- Order 49.—Medicine.
- Order 50.—Instruction.
- Order 51.—Letters and arts and sciences.
- Order 52.—Other professional occupations.

Sub-class IX.—Persons living on their income.

- Order 53.—Persons living principally on their income.

Class D.—Miscellaneous.

Sub-class X.—Domestic service.

- Order 54.—Domestic service.

Sub-class XI.—Insufficiently described occupations.

- Order 55.—General terms not indicating the precise occupation.

Sub-class XII.—Unproductive.

- Order 56.—Inmates of jails, asylums and hospitals.
- Order 57.—Persons supported by charity, beggars, vagrants, prostitutes.
- Order 58.—Persons without any occupation.

Within this scheme all the occupations returned at the census have been fitted without difficulty. Two points of detail, however, should be mentioned. First, persons who subsist on income derived from the rent of agricultural land, are usually included in Class C, Professions and liberal arts, Sub-class IX, Persons living on their income. Agriculture is, however, of primary importance in Palestine: some landlords cultivate, some do not; while others combine both income from rents and income from cultivation, giving the one form of subsistence the title of principal and the other that of subsidiary, although it may be chance rather than certainty of idea that decides the personal choice. Furthermore, it is essential to know the total number of persons who are supported by agriculture directly or indirectly, so that it is better, from this aspect, to include non-cultivating landlords within the class, sub-class and order within which agricultural pursuits are classified. It is a simple matter for those interested to make the necessary re-arrangement for purpose of international comparison, since the operation consists only of removing the group from one position to another in the scheme. The second detail is that each person has been assigned to a principal occupation: thus, a dependant was returned in the record of enumeration as deriving subsistence from the principal occupation of the earner supporting him, irrespective of any personal non-gainful occupation that he might be following himself. So also a person out of employment was returned under the occupation which he followed prior to his unemployment. This was necessary inasmuch as there is as yet no working definition of unemployment in Palestine; and, without precision of definition, there would certainly have been confusion between lack of occupation, which is largely a seasonal phenomenon in Palestine, and unemployment, which is a social state in which certain classes of people are not absorbed in the economic and industrial life of the country.

**Classification
of organized
industry.**

241. It will have been observed in the preceding paragraph that Class B comprises three sub-classes, namely, those headed as "Industry", "Transport", and "Trade". The sub-class "Industry" is not the classification for organized industry, although it serves as a guide to the tabulation of the answers to questions concerning organized industry. A special classification was, therefore, prepared for organized industry, and this is a modification of the classifications adopted in the United Kingdom, India and Egypt. Organized industry differs greatly in most of its characters from country to country, so that it is virtually impossible to obtain a common basis for strict international comparison. Any classification of organized industry is, therefore, governed principally by the local circumstances of a country; the terms used are, however, universally understood and accepted. The principal distinction between the sub-class of occupations under the heading "industry", in the occupational distribution, and the classification of "organized industry" will be easily apprehended when it is seen that the occupations are classified by consideration of what a person does to provide himself with a livelihood, while the distribution of organized industry is arranged on the basis of the article or thing produced.

**The
application of
the
classifications.**

242. While preliminary draft classifications are of the utmost utility in the work of tabulating census results, considerable difficulty is always experienced in interpreting some of the details of the record of enumeration. It is essential to secure uniformity where uniformity is implicit, so that an elaborate code of instructions was necessary in the tabulation office, those instructions being designed to cover variations in the original descriptions of occupations and industries. This code was combined with a system of query sheets, so that those, who were employed on coding the census information, on finding an entry not covered by the instructions filled up a query sheet and despatched it to higher authority for a special instruction as to the intention of the entry and its proper classification. In this manner the whole classification was controlled by a single mind actuated by one system of interpretation. It follows, therefore, that the tabulations emerging from the draft preliminary classification are uniquely determined, and are not the result of the application of the preliminary classifica-

tions with a series of interpretations varying from time to time and from person to person. Clearly such an arrangement is important, because, without it, there is danger of internal inconsistency within the tabulations themselves. Three points in regard to interpretation call for observations. First, where a person was described in the census schedule as both the maker and seller of an article, that person was classified under the industrial order of the occupational classification, the commercial order being reserved for trade and nothing but trade. Secondly, both industrial and trading operations broadly fall within two categories :—

- (i) those where the occupations are classified according to the material of which the articles are made ; and
- (ii) those where the occupations are classified according to the use which the articles serve.

As a general rule, the first category is reserved for the manufacture or sale of articles the use of which is not finally determined, but it may include the manufacture of specified articles for which there is no separate head, and also such occupations as are characterized by the material rather than by the finished products. The following examples may make the point clear. There are occupations concerned with industries connected with wood, but the finished articles are not specified ; but there are also occupations concerned with the manufacture of furniture. The former occupations are classified according to the material used, namely, wood : but the latter occupations are classified by the use to which the finished wooden articles are put, namely, under a heading concerned with furniture. There is a similar distinction in trade, and the example given for industry suffices to illustrate the principle adopted for this sub-class. As a further example, a village shoe-maker may also make waterskins and other articles of leather ; that is, his occupation is characterized by the material used rather than by the finished article, so that his occupation is classified, where no other indication is given, according to the material used, namely, leather. Thirdly, as a general rule, when a person's occupation is one which involves special professional training, *e.g.* that of a physician, or an engineer, or a surveyor, etc., he is classed under the head reserved for that occupation, irrespective of the agency by which he is employed. A Medical Officer of Health, for example, or an engineer of the Department of Public Works is shown as a doctor or an engineer, and is not placed under the head " Public administration " which is reserved for professional civil servants engaged in general administrative duties who cannot be classified in other distinctive professions. There is clearly an advantage in this arrangement because the number and functions of public officers can be determined and made public at any time ; but a census leads to a conspectus of the whole population, and information is required as to the functional distribution of the whole population, so that doctors are classed with doctors, lawyers with lawyers and so on, irrespective of the actual source of their income.

243. The complete list of occupations has been condensed as far as possible on the ground that a census does not supply and should not be fallaciously used to supply data suitable for minute classification. An alphabetical list of occupations classified is given as an appendix to this chapter, and a comparison of that list with the classifications used in the tabulations will indicate the degree of condensation used in the latter.

244. A study of the instructions to enumerators will show that all earners were obliged to return a principal occupation, and that, in the appropriate cases, earners might return a subsidiary occupation which they followed ; also that a principal occupation must be returned in respect of all dependants, namely, that of the earner who supported them, and that dependants might return as subsidiary occupations those occupations which they followed but which added no positive increment to the income of the household. The tabulations of mixed occupations

Mixed
occupations.

relate only to the dual occupations of earners, and are tripartite in character. Agriculture being of primary importance, tabulations have been arranged on the basis, first, of the secondary occupations of agriculturists, secondly, the most important primary occupations of those for whom agriculture provides subsidiary means of subsistence, and, thirdly, the primary and secondary occupations of those who derive no livelihood from agriculture. Tabulations for the last class have been confined to subsidiary occupations, in the pursuit of which, as subsidiary, there were at least fifty earners in principal occupations. If the limitation had been fixed on the basis of a minimum of twenty five principal earners, the tabulations would have shown an addition of thirty six principal occupations, but the value of the results of the less stringent restriction was not commensurate with the labour of preparing the tables or the cost of printing the necessary tabular matter. It is, perhaps, unnecessary to add that the classification for subsidiary occupations is identical with that for principal occupations, so that the two series of occupations can be entered completely in a two-fold table¹, and then divided into the three categories already mentioned.

**Organized
industry.**

245. Among the various proposals considered, before the details of the census were determined, was one suggesting that the opportunity be taken to combine an industrial census with the general census. The broad difference between an occupational and an industrial distribution has already been explained. As a result of that distinction, the classification of occupations leads to knowledge of the activities of the population in relation to their daily lives; while that of industries leads to a conception of the relation of occupations one to another in the larger economic activities of the organized sort, and the fluctuations in the contribution of man power to these larger industrial activities, according to circumstances governing the prosperity or otherwise of such industries. For example, a man may return himself as a motor mechanic, and in the occupational distribution will be assigned to a place under the appropriate occupational description; but he may be a motor mechanic employed in a power house, and, as such, falls within a special group of persons who in their several ways contribute to the maintenance of the supply of electrical power. All such persons find their place in the occupational distribution in virtue of their personal activities; but they also find their place in an industrial classification in virtue of their contribution to the maintenance of the supply of electrical power. So far the matter seems simple enough; but the difficulty lies in framing simple and precise questions to which definite answers can be given; and the usual experience, even in many countries at an advanced stage of development, is that this difficulty is insuperable if the attempt to elicit information is made through the agency of a general census. There are various reasons for this difficulty which are well known by all students of statistics, and, unless the results of the census of England and Wales, 1931, prove to be satisfactory, it cannot be yet stated that the difficulty has been completely overcome, although a very large measure of success has attended the efforts of census authorities in some countries. Usually it has been found best to have special schedules drafted to be completed by employers of labour at the time of the taking of a general census. Another fairly reliable method is to obtain information through Masters' Associations and Trade Unions, though the replies from these groups sometimes reflect, in a statistical sense, unconscious bias inevitably caused by the relations of the Associations or the Unions to the whole economic complex. At the census of England and Wales, 1931, the experiment was adopted of asking each employed person the business of his employer, on the ground that this might prove to be the best method of ascertaining the industry with which any person was connected. The results of that experiment are not yet known; and, until they are known, all that can be said is that it is generally recognized that it is impossible to procure

¹ In point of fact, a complete dichotomous table was prepared at considerable labour, and it is questionable whether the results are worth the trouble. Unfortunately, in these cases, it is always necessary to do the work before the value of the results can be measured. Now that the work has been done in respect of one census, it is probably legitimate to infer that it need not be done at the next census.—E.M.

accurate information as to industrial developments by the machinery of a general census. On the other hand, to have followed the orthodox method of supplying employers of labour with special forms, to be completed in respect of the several industries, was not possible in the present stage of development in Palestine, because there is in existence no guiding definition as to the meaning of "employer" for these purposes. Is the leather worker who employs an apprentice an employer in organized industry? If not, is the employment of five or twenty persons to characterize an "employer"? Must a line be drawn somewhere? If so, where? Not all factories in Palestine are factories for the purposes of existing legislation, so that the ordinances designed to protect workers in industrial establishments give no adequate clue to the problem. Domestic workshops or factories may be liable to inspection by medical officers of health and other censorial officers, but they are not necessarily establishments falling properly within any normal definition of "organized industry".

A voluntary census of industries taken in Palestine in 1928 gave little guidance in the matter because industries were defined as:—

"All factories and workshops producing any article either by hand or power, with or without paid labour, ready for sale"¹

The following observation on this definition was made in the introduction to the report:—

"Thus, all workshops, no matter how small, provided that work is carried on in premises independent of dwelling places, were to be enumerated."

Apart from obvious difficulties connected with the correlation of this definition with organization, it is clear that the general census of 1931 was concerned with earners in a gainful occupation, and with dependants in either no occupation or in one which did not add positively to the subsistence of the household; and, provided that some definition could have been constructed for factory or workshop, a question might have been framed to which an answer, more or less precise, might have been given. But the definition adopted for the Census of Industries, 1928, appears to equate industry with an undefined factory producing a recognizable article. Those responsible for that census claim that the definition excluded domestic workshops and factories, that is, those located in dwelling places, but the claim may be vitiated by the fact that factories and workshops are not defined. No doubt, in the practical operation, the authorities taking that census did exclude from their survey factories and workshops that were not independent of dwelling places; but there is nothing in the Report of 1928 to guide those responsible for a subsequent general census as to the definition of either factory or employer for the purpose of eliciting information as to organized industry. Without a definition it is impossible to know to whom to send special forms for completion, and the only satisfactory method was to follow the experiment adopted in England and Wales, 1931, and ask the name of the employer and his business, a method which was quite beyond the resources of a census administration in Palestine at its present stage of development. Since this task was too onerous, it was thought that a simple question addressed to earners, in receipt of salary or wages from an employer, either as an individual or as a legal person, such as a company, might elicit useful information, to some extent compensating for the loss of information that might have been gained by the more precise methods indicated above but, at present, beyond the administrative resources of the country. How far this experiment failed or succeeded, will be discussed in the special section devoted to industrial statistics; it is sufficient here to say that the matter is full of difficulty, and that the census question, as regards industry, was far from precise.

¹ *First Census of Industries in Palestine, 1928, Introduction.*

The reference
to the
statistics

246. The statistics of occupation will be found in the following Principal Tables in Volume II of this Report :—

Table XVI.—Occupation or means or livelihood—general table.

Part I.—General table—Summary.

- (a) Settled population.
- (b) Nomadic population.

Part II.—General table—Details for districts and sub-districts.

- (a) Settled population.
- (b) Nomadic population.

Table XVII.—Occupation of working dependants by age for males and civil condition for females.

Part I.—Summary for Palestine.

Part II.—Details for districts.

Table XVIII.—Subsidiary occupations of agriculturists—earners only.

Part I.—Income from rent of agricultural land.

Part II.—Ordinary cultivators.

Part III.—Farm servants and field labourers and watchers.

Table XIX.—Agricultural occupations as subsidiary to certain others.

Table XX.—Main subsidiary occupations of earners who returned a non-agricultural occupation as their principal occupation.

Table XXI.—Organized industry.

Part I.—Summary for Palestine.

Part II.—Details for districts.

Part III.—Details for principal towns.

Proportional figures illustrating the main features of the statistics are given in the following Subsidiary Tables at the end of this chapter :—

Subsidiary Table I.— General distribution of the population by occupation.

Subsidiary Table II.— Number per 10,000 of population supported by each order of occupation.

Subsidiary Table III.— Distribution of agricultural, industrial, commercial and professional occupations by locality and by main religions.

Subsidiary Table IV.— Number of 10,000 earners whose main occupation is not agricultural but who have a subsidiary agricultural occupation.

Subsidiary Table V.— Occupations combined with agriculture where agricultural occupations are principal—earners only.

Subsidiary Table VI.—Part I.—Number of female earners per 10,000 persons supported in each category of occupation. Part II.—Number of female earners per cent. of earners of both sexes in each class, sub-class, order and in certain agricultural groups of occupations.

Subsidiary Table VII.—Distribution of 10,000 working dependants of both sexes by classes and sub-classes of occupations, and other details.

Subsidiary Table VIII.—Number in each main religion per 1,000 of population supported by each class and sub-class of occupation.

Subsidiary Table IX.—Number of persons in each class of organized industry per 10,000 employed in organized industry.

Subsidiary Table X.—Distribution by function and status of 10,000 persons employed in each class of organized industry.

It will be conceded that the statistical material now made available is of generous dimensions and of detailed character. It will not be possible to give, in this chapter, a detailed analysis of the results; those, however, who desire to make researches in the economic fields, now surveyed, will find that the elaborate compilations and the resulting proportional tables that have been prepared will suffice for most of their requirements.

THE OCCUPATIONS.¹

247. The following statement shows approximately the distribution per ten thousand of the settled population according to the four main classes of occupations:—

The general distribution by occupations.

Class of occupation	Number per 10,000 supported. (Earners and dependants, both sexes).	Earners only (both sexes)
All classes : All	10,000	2,898
Production of raw materials	5,446	1,413
Production and supply of material substances	2,899	898
Public administration and the liberal arts and professions	863	283
Miscellaneous	792	304

The population is, therefore, primarily supported by the gainful occupations of 29 persons in every hundred living. It will be seen at a glance that this proportion is dominated by the proportions revealed in the class of occupations concerned with the production of raw materials, of which agriculture is by far the most important.

¹ In what follows, as regards both occupations and organized industry, I attempt nothing more than the briefest analysis of the most marked features of the statistics. It will be clear that, even if I had the encyclopaedic knowledge required for an authoritative discussion of all the occupations, the limitations of space and a general sense of proportion preclude my attempting so detailed a survey in a report intended for general interest. Departments, statisticians, and the industrial and commercial communities will find, in the numerical elaboration of the tabular matter provided, ample material significant in respect of their own special interests. It is, however, of the greatest importance to study the absolute statistics since, without a proper conception of the magnitude of the various categories of supported population, the proportional statistics may be misleading.—EM.

The distribution according to the twelve sub-classes of the scheme of classification is as follows :—

Sub-classes	Number per 10,000 supported in each sub-class. (Earners and dependants, both sexes)		Earners only (both sexes)	
	Settled population	Urban population	Settled population	Urban population
1	2	3	4	5
All Sub-classes	10,000	10,000	2,898	3,582
I. Exploitation of the surface of the earth ...	5,363	440	1,389	160
(i) Agriculture and pasture	5,333	388	1,381	146
(ii) Fishing and hunting	30	52	8	14
II. Extraction of minerals	83	69	24	21
III. Industry	1,378	2,871	458	1,049
(i) Textile industries	56	50	19	26
(ii) Wood industries	151	340	47	110
(iii) Metal industries	102	207	32	70
(iv) Food industries	187	423	54	136
(v) Industries of dress and the toilet... ..	299	704	115	298
(vi) Building industries	384	675	124	234
(vii) Other industries	199	472	67	175
IV. Transport	523	1,085	167	369
V. Trade	998	1,961	273	590
(i) Trade in foodstuffs	622	1,141	170	341
(ii) Trade in textiles	92	132	20	34
(iii) Other trades... ..	284	688	83	215
VI. Public force	131	228	63	131
VII. Public administration	121	267	36	89
VIII. Professions and liberal arts	366	899	136	357
IX. Persons living on their income	245	530	48	131
X. Domestic service	178	406	105	258
XI. Insufficiently described occupations	473	1,042	177	416
XII. Unproductive	141	202	22	11

These proportions are illustrated in Diagram No. 42.

Thus 54 per cent. of the settled population are supported by agricultural occupations, of which the most important is ordinary cultivation supporting 45 per cent. of the people. The cultivation of special products, of which the citrus fruits are the most important in value, supports rather more than 5 per cent. of the population. Industry, generally supports about 14 per cent. of the people; of the various industries those concerning building and those concerning dress and the toilet engage about 4 per cent. and 3 per cent. of the people respectively, the food industries coming next with not quite 2 per cent. and industries concerning wood supporting about 1.5 per cent. About 10 per cent. of the population are engaged in trade, of which trade in foodstuffs is the most important supporting 6 per cent., trade in textiles being next important as supporting nearly 1 per cent. of the population. The professions and the liberal arts support rather more than 3.5 per cent. of the population, while independent means provide the subsistence for rather less than 2.5 per cent. of the people.

It is abundantly clear that the dominant economic activity in the country is concerned with agriculture. In England and Wales, 1921, where industrial and commercial activities are dominant, the number of males aged 12 years and upward occupied in agriculture per thousand males engaged in all occupations was 84 or nearly 8.5 per cent. The comparison between England and Wales, on the one hand, and Palestine, on the other, is not exact, because the definitions employed and the methods of tabulation of the census results in the two countries differ. The comparison, however, is good enough to emphasize the importance of agriculture in Palestine as providing the means of subsistence for more than half the population. A century back, a great part of the European populations was also dependent on agricultural pursuits; but the growth of applied science and the development of power have completely changed the functional distribution of many of the European populations, and it is possible to conceive that a similar phenomenon, on a very small scale, may be revealed in the future of Palestine.

248. Subsidiary Table No. *III*¹ gives the distribution of the main categories of occupations through the settled population. The distribution by districts derived from a similar table given below in respect of the total population is illustrated in Diagram No. 43, which shows very clearly the respective differences between the districts as regards the functional distribution of the population.

Distribution
by locality.

NUMBER PER CENT. SUPPORTED IN EACH CATEGORY OF OCCUPATION.*

Class	Palestine	Southern District	Jerusalem District	Northern District
Agriculture	54	56	47	57
Industry	14	14	17	11
Commerce	14	16	13	13
Profession	3	3	6	2
Others	15	11	17	17

*This table is similar in form to Subsidiary Table No. *III* at the end of the chapter; but differs in substance from it by reason of the fact that the nomadic population has been included in calculating the proportions shown, whereas Subsidiary Table No. *III* is concerned with the settled population only.

Turning to the settled population it is somewhat surprising to find that the proportion of industrial population is highest in the Jerusalem district, being nearly 18 per cent., the Southern district taking second place with a proportion of 16 per cent. A glance at the distribution by sub-districts shows that this result is due to the relatively high proportions of industrial populations in the sub-districts of Jerusalem (26 per cent.) and Bethlehem (nearly 28.5 per cent.) where there is a concentration of craftsmen who are workers in various materials. The Southern district, as was to be expected, gives the highest proportion of commercial population (nearly 19.5 per cent.); while the Jerusalem district, in accordance with expectation, gives, most emphatically, the highest proportion of the professional population (6.0 per cent.). The agricultural proportion of the population of the Northern district is 57 per cent., a proportion markedly higher than that in the other two districts.

249. The general distribution of economic functions within the main religious confessions is given in Subsidiary Table No. *III*, and the proportions are illustrated in Diagram No. 44.

Distribution
by religion.

The distribution of occupations by religious confessions is given in Subsidiary Table No. *VIII*.

¹ It should be noted that Subsidiary Table No. *III* gives a greater precision to the statistics than is obtained by a consideration of classes of occupations. The table should prove of value to those desiring to obtain a conspectus of the resources for taxation and its particular incidences.—E.M.

Distribution of total population by occupations
(classes) and districts
The base of each rectangle is proportional to total
population of the district
1 sq. cm. = 20,000 persons

This diagram is prepared from the details of Subsidiary Table No. III modified
to include the nomadic population who follow agricultural occupations

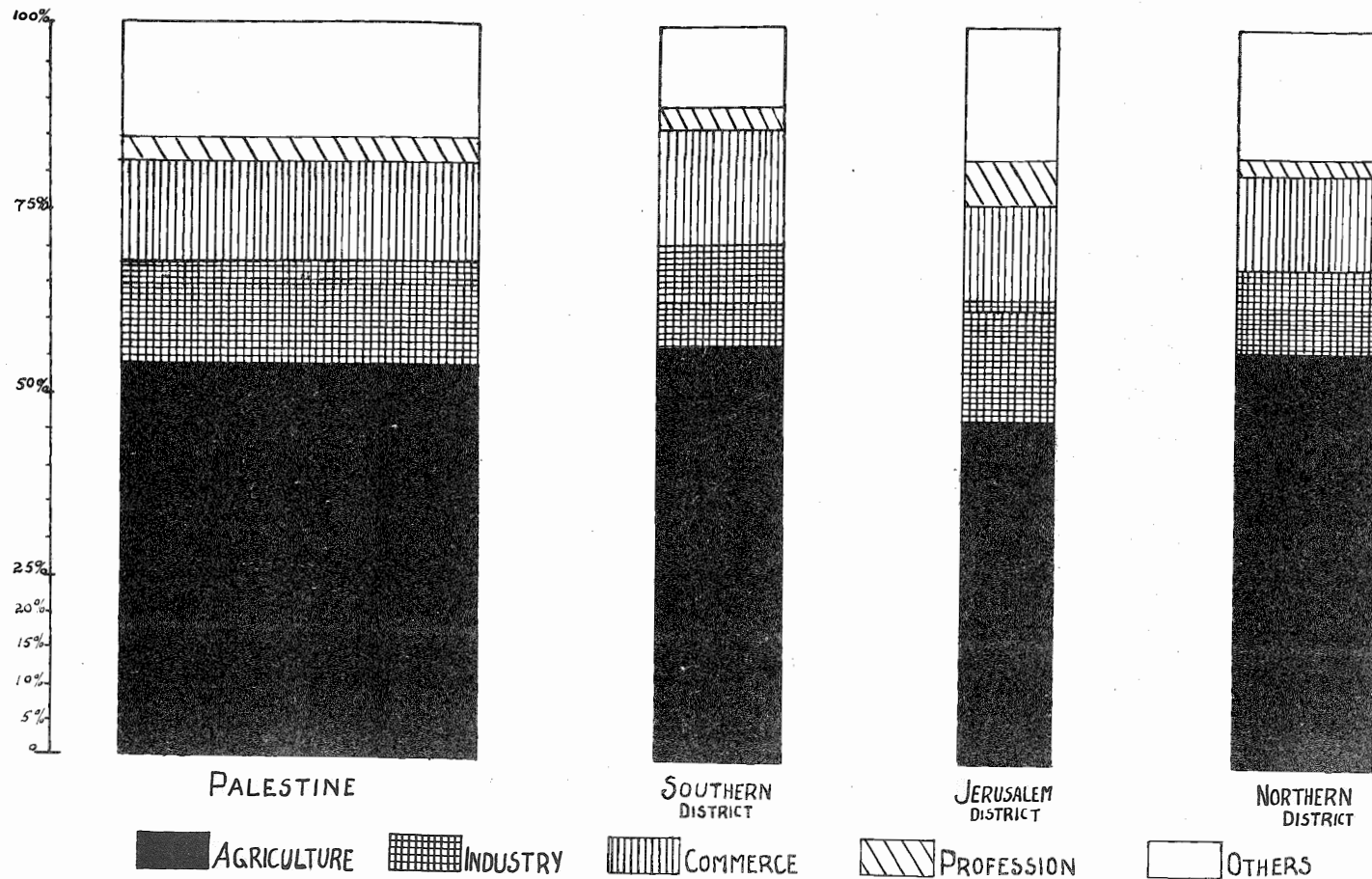
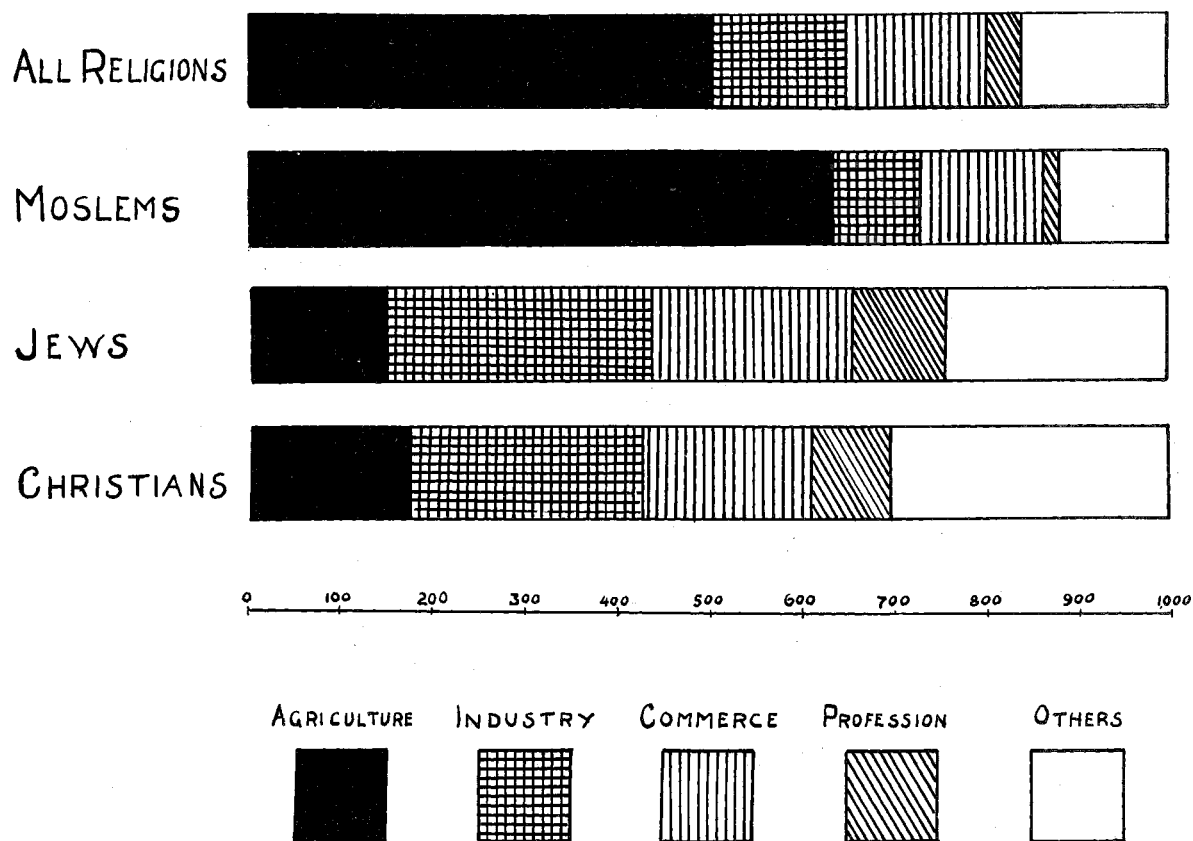


DIAGRAM No. 43

PROPORTIONATE POPULATION SUPPORTED IN EACH MAIN RELIGION BY
 AGRICULTURAL, INDUSTRIAL AND PROFESSIONAL OCCUPATIONS



Agriculture supports 64 per cent. of the Moslem population, 15 per cent. of the Jews, and nearly 18 per cent. of the Christians. The Moslem community is, therefore, the agricultural community, the proportion engaged in agriculture in the other two communities being far below the general proportion for the country as a whole. Indeed, Subsidiary Table No. *VIII* shows that 90 per cent. of the population supported by agriculture are Moslems, just over 5 per cent. are Jews and not quite 3.5 per cent. are Christians. The proportion of Moslems supported by industry is not quite 10 per cent. ; of Jews, is 29 per cent. ; and, of Christians, is 25 per cent. Of the industrial population, 46 per cent. are Moslems, 37 per cent. are Jews, and 16.5 per cent. are Christians.

Commerce supports 13 per cent. of the Moslems, 22 per cent. of the Jews, and not quite 19 per cent. of the Christians. Of the population supported by trade, nearly 59 per cent. are Moslems, 30 per cent. are Jews, and just over 11 per cent. are Christians ; while, of the population supported by occupations in transport, not quite 69 per cent. are Moslems, 19 per cent. are Jews, and 12 per cent. are Christians.

Professional occupations support 1.5 per cent. of the Moslems, 10 per cent. of the Jews, and not quite 8.5 per cent. of the Christians. Of the professional population, not quite 29 per cent. are Moslems, rather more than 49 per cent. are Jews, and nearly 22 per cent. are Christians.

All other occupations support about 12 per cent. of the Moslems, 24 per cent. of the Jews, and 30 per cent. of the Christians.

Thus, the Moslem population is emphatically an agricultural population, more than half the Jewish population is supported by trade and commerce, less than one-sixth being supported by agriculture ; over one sixth of the Christian population is supported by agriculture, and rather more than two fifths by trade and commerce.

Urban occupations.

250. For the consideration of urban occupations the four towns of Jerusalem, Jaffa, Tel Aviv and Haifa alone have been taken into account. With this definition, nearly 29 per cent. of the urban population is supported by industry and 20 per cent. by trade, transport coming next as supporting nearly 11 per cent., and insufficiently described occupations providing livelihood for just over 10 per cent. Of the industries those concerning dress and the toilet are numerically the most important, building industries taking second place, each category supporting about 7 per cent. of the urban population. Trade in foodstuffs provides livelihood for over 11 per cent. of the population of the four main towns.

Village occupations.

251. No analysis of village occupations has been attempted. It seems to be the fact that, many years before the Great War, the dependence of each village upon itself for the requirements of life had broken down, so that, at the present day, there are few, if any, villages in which the populations provide entirely for themselves by means of their own labour. The importation of machine-made cloth, paraffin oil and other western commodities have, on the whole, made the lives of village artisans and craftsmen unprofitable. Attempts are being made to revive village crafts and industries, but, generally speaking, the oriental sees no good reason why he should not, in common with the rest of the world, benefit from the developed resources of western countries ; and it is only in comparatively few localities that village crafts are still maintained, not so much for the consumption of the finished products by the people of the country as for sale to the considerable number of visitors to the country during the winter and spring seasons. The rapid growth of easy communications in Palestine has, undoubtedly facilitated an evolutionary process that has been manifested in all countries that have responded to the influences of the industrial and commercial organizations of the world.

Earners and dependants.

252. It has already been explained, in the introductory section of this chapter, that the census questions were designed to obtain, as far as possible, a conception of the economic status of all persons, either as earners or as dependants. It has also been pointed out that the device of permitting dependants to declare personal

occupations, as subsidiary to the occupations of the earners who supported them, made it possible to distinguish between working and non-working dependants. The various difficulties surrounding the conceptions and the resulting classifications have also been emphasized. Very considerable care was taken in the preparation of the classifications in order to ensure that only one interpretation should be applied to the complex of answers to the census queries ; and it may be confidently claimed that the results have a high degree of reliability, and that they correspond generally with European notions as to the personal relationship of economic dependency.

The following table, extracted from Subsidiary Table No. *III* gives the significant information :—

Locality and religion	Number per cent. supported of									
	Earners					Dependants				
	Agric- cul- ture	In- dus- try	Com- mer- ce	Pro- fes- sions	Others	Agric- cul- ture	In- dus- try	Com- mer- ce	Pro- fes- sions	Others
PALESTINE	25	33	29	37	35	75	67	71	63	65
Southern District	27	35	30	42	38	73	65	70	58	62
Jerusalem District	23	33	28	34	31	77	67	72	66	69
Northern District	25	32	29	37	36	75	68	71	63	64
Moslems	24	30	28	28	33	76	70	72	72	67
Jews	46	39	32	43	37	54	61	68	57	63
Christians	26	30	30	37	37	74	70	70	63	63

From Subsidiary Table No. *I* it appears that of every hundred of the settled population 29 have been returned as earners and 71 as dependants (working and non-working together). The table given above adjusts these proportions to the main categories of occupations in the whole country, the three districts and the three main religions. The Jerusalem district returns the highest number of dependants to earners in agricultural occupations ; the Northern district in industrial occupations ; and the Jerusalem district in all other occupations. The distribution by religions shows that there are rather more than three Moslem dependants to one Moslem earner in agriculture ; not quite three dependants to one earner among the Christians ; and just over one Jewish dependant to one Jewish earner engaged in agricultural occupations. The figures in the remaining columns show that Moslem earners support the largest number of dependants, the greatest disparities being shown always by the Jews particularly in the professional occupations. The general correspondence between the average rural Arab household and the economic familial Arab unit has already been noticed in Chapter I (Distribution of population)¹. No such correspondence holds for Jewish households, and the explanation is to be found in one or both of the following reasons :—

- (i) There are relatively fewer child dependants in Jewish households ; and
- (ii) A relatively greater number of the members of Jewish households are earners, in the sense that, while they are not independent of the household for their subsistence, they augment the family income, and so enable the household to maintain a better standard of life than would otherwise be possible.

¹ Approximately,

10 Arab households = 45 Arabs persons of both sexes.

= 11 earners and 34 dependants.—E.M.

Female
earners.

253. Complete statistics of the occupations of females as earners will be found in the two parts of Subsidiary Table No. VI¹. The following extract from the various tables summarizes the main results :—

NUMBER OF FEMALE EARNERS PER 1,000 MALE EARNERS IN SUB-CLASSES OF OCCUPATIONS AND IN SELECTED ORDERS.

SUB-CLASS	Selected orders	Number of earners		Number of females per 1,000 males
		Males	Females	
	All classes	246,921	34,017	138
I	Exploitation of the surface of the earth ...	122,993	11,598	94
	1(a) Ordinary cultivation	99,277	9,488	95
	1(b) Growers of special products	14,427	1,583	110
	1(c) Raising of small animals	85	174	2,047
II	Extraction of minerals	2,353	18	8
III	Industry	38,516	5,848	152
	6 Textiles	1,378	460	334
	13 Industries of dress and the toilet	6,880	4,264	620
IV	Transport	15,891	251	16
	24 Post office, telegraph and telephone services	791	97	123
V	Trade	24,473	2,022	83
	25 Banks, establishments of credit, exchange and insurance	982	142	145
	31 Trade in pottery	128	18	141
	33 Hotels, cafés, restaurants	3,496	524	150
	40 Trade in articles of luxury and those pertaining to letters and the arts and sciences	494	60	121
VI	Public force	6,070	30	5
VII	Public administration	3,384	144	43
VIII	Professions and liberal arts	9,230	4,004	434
	49 Medicine	994	1,782	1,793
	50 Instruction	2,604	1,583	608
	52 Other professional occupations	8	69	8,625
IX	Persons living on their income	2,881	1,778	617
X	Domestic service	3,908	6,238	1,596
XI	Insufficiently described occupations	15,507	1,616	104
XII	Unproductive	1,715	470	274

The greatest proportion of females to males is found in "Other professional occupations" of which house-management is the most important. Occupations in medicine include nursing and midwifery, and these are responsible for the high proportion of females to male earners. Domestic service, as might be expected, also yields a high proportion of female earners. In general, 3.5 per cent. of the total population supported is composed of female earners; and, of all earners in all classes of occupations, 12 per cent. are females. The proportions are rather

¹ It is important to have constant regard for the absolute statistics in Volume II, in order to assess at their proper value the various proportions exhibited in the Subsidiary Table. It is usual to employ in such statistics the masculinity ratio females/males, as has been done in the sections on vital occurrences and migrations. I see no special value in the masculinity ratio in occupational statistics. A more useful function is sometimes given by the ratio of domestic servants to population, in that in certain European countries it gives a reliable index of the relative wealth of localities and various communities. In the table given above, however, the ratios of females to males have been given, and will give some idea of the relative importance of women as earners within Palestine, and will facilitate easy comparison between Palestine and other countries in respect of those features.—
E.M.

higher than might have been expected and vary considerably among the various groups of occupations and the different localities and religious communities. Thus, of the Moslem earners, 8 per cent. are females ; of the Christian earners 17 per cent. are females ; and of the Jewish earners 22 per cent., more than one fifth, have been returned as engaged in gainful occupations.

254. Working dependants are those persons who are primarily supported by an earner with a principal occupation, but who are, themselves, following some occupation that does not augment the family income. The total number of working dependants is 81,016, of whom 5,452 are males, and 75,564 are females.

Working
dependants.

The following extract shows how these persons are distributed through the communities :—

WORKING DEPENDANTS.

(a) Absolute figures.

All religions			Moslems			Jews			Christians		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
81,016	5,452	75,564	64,695	4,464	60,231	11,754	614	11,140	4,283	348	3,935

(b) Proportionate figures. Number of working dependants in each religion per 10,000 in all religions.

All religions			Moslems			Jews			Christians		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
10,000	673	9,327	7,985	551	7,434	1,451	76	1,375	529	43	486

In so far as housewives who could have returned "house-management" as their occupation are concerned, it is clear that the return is greatly defective. This is particularly noticeable among the Jews and the Christians, among whom it was supposed, in some circles, that European ideas might lead to an expression of resentment against the classification of women as dependants. It is clear that they have not taken advantage of the opportunity afforded to them by which they could have declared a status of working dependency ; and it may be inferred that they are, on the whole, indifferent to questions concerning the economic status of women so long as these remain in the realm of theory.

The actual distribution of working dependants through the classes and sub-classes of occupations is shown in Subsidiary Table No. VII for the main religions ; and further statistics are given in respect of juvenile male working dependants and also in respect of females who are either unmarried, or divorced or widowed¹. In so far as all married women living with their husbands had the opportunity of returning "house-management" as their occupation in the status of working dependency, there was understatement in the returns of occupations of females as working dependants. It follows that the proportions

¹ A very large number of significant correlations between earners and working dependants are possible, but the limitations of time and space precluded my attempting them. An important set could be obtained by establishing the relations between working dependants and earners in the various groups of occupations. Much of the information is available in Volume II, and I hope that somebody will attempt the task.—E.M.

of working dependants given in Sub-class IX, Professions and liberal arts, are smaller than they actually are, and that all other proportions shown in the Subsidiary Table are, therefore, higher than they should be. The proportions of female working dependants, who are otherwise than married, are also higher than they should be in the professional occupations. The proportions of juvenile males in the various classes are probably erroneous to the extent to which the age returns are incorrect; and, since male adolescents tend to return ages in excess of their true ages, it is possible that the proportions of male working dependants under the age of 17 years should be somewhat higher than those shown. Notwithstanding these defects, it is instantly obvious that the occupations of married women as dependants are so preponderant that the other features of the distribution are relatively insignificant. Indeed about 88 per cent. of the working dependants are returned under the professional occupations, and by far the greater part of this proportion comprises married women engaged in house-keeping. About 8 per cent. of the Moslem working dependants are engaged in agricultural pursuits; the similar proportions for Jews and Christians both being about 5.5 per cent. Rather more than 4 per cent. of the Jewish working dependants are engaged in industry, transport and trade, the proportion for Christians being rather more than 6 per cent. An interesting feature which, at first sight, appears to be an error is seen in the proportions of working dependants who are returned as living on their own income. This appears to be inconsistent with the instructions to the enumerators, because, *prima facie*, persons living on their income should be returned as earners. Examination of the original returns, however, shows that the majority of these persons are in the youthful ages, and are not engaged in gainful occupations. In all probability they give some assistance to their parents in various ways and receive pocket money in acknowledgement of their services. If the questions be repeated at future censuses, it will be desirable to make it clear at the outset that working dependants must have a non-gainful occupation which cannot be termed "living on income", except in those cases in which the working dependant assists an earner, who is, himself, living on his income, derived either from rents or from interest from investments or some similar source of revenue.

Of the male working dependants 39 per cent. (42 per cent. for Moslems, 19 per cent. for Jews, and 37 per cent. for Christians) are returned as under the age of 17 years. The proportions are almost certainly understated, owing to the fact, already mentioned, that young adolescents have the habit of exaggerating the number of their years. The return is clearly erroneous in other respects. For example, 50 per cent. of the Jewish male working dependants with non-gainful occupations with the public forces are stated to be under the age of 17 years. Under the instructions, however, it is impossible to conceive that there can be any working dependants occupied in police or military activities. All such persons are in the receipt of salary or wages and are, therefore, persons in the economic status of earners. Similar observations apply to Moslem working dependants, male and female, engaged both in public force and in public administration. The explanation seems to be that the instructions were misunderstood, and that these persons are strictly earners, but that they live at home and, in that sense, have been regarded as dependant on the heads of the several households¹. Generally, therefore, the information as to working dependants is unreliable in detail; but it can be said that sufficient information is available to show that working dependants are an indispensable element of the economic life of the country. On the whole, the proportions of female working dependants who are unmarried, divorced or widowed, in the various sub-classes of occupations, have a higher degree of probability than those of juvenile male working dependants. Apart from very obvious errors such as those occurring in the sub-classes of public

¹ I could, of course, have removed these obviously erroneous returns in the course of tabulation; but believed that it would be of value to reveal some of the many difficulties to be encountered in attempting at a general census, in countries such as Palestine, to elicit exact information concerning occupational and industrial activities. It is only by revealing to the general public some of the grosser errors that the standard of accuracy can be improved with each successive census, the public learning to avoid that which has been condemned in past years.—E.M.

force and public administration, there is a general tendency for the proportions of unmarried women employed as working dependants to conform with normal expectation¹.

CLASS I.—PRODUCTION OF RAW MATERIALS.

255. As has already been pointed out Palestine is dominantly an agricultural country. Of its settled population 53 per cent. are engaged in pasture and agriculture, namely 45 per cent. in ordinary cultivation, 5 per cent. in the cultivation of special products, and 3 per cent. in forestry and animal and poultry husbandry. Over 440,000 persons are supported by ordinary cultivation, of whom 108,765 are earners and 331,319 are dependants. Of the earners 5,311 derive their livelihood from the rents of agricultural land, 63,190 persons cultivating their own land in whole or in part or cultivating lands which they hold as tenants.²

Class A—
Production of
raw materials.

It is impossible to distinguish between cultivating and non-cultivating land owners; and between landlords who only receive rent, that is, who are land owners, and landlords who both pay and receive rent, that is, who are tenants from a land owner and who have sub-let their tenancies to third parties. By far the greatest number of rent-receivers are Moslems, for out of the total number of 5,211 only 10 are Jews and 236 are Christians.

256. The farmers, that is, the persons who cultivate either their own lands or the lands of a landlord, number 63,190 earners of whom 3,669 are Jews and 2,376 are Christians. The agricultural labourers number 29,077 earners, of whom 2,582 are Jews and 512 are Christians. There are thus two farmers for every one agricultural labourer among the Moslems, four farmers for every ten agricultural labourers among the Jews, and 45 farmers for every ten agricultural labourers among the Christians³. In England and Wales, 1921, there were 17 agricultural labourers for every one farmer. In Bengal, 1921, there were five farmers for every one hired agricultural labourer. In India as a whole there were, in 1911 four farmers for every one agricultural labourer. Palestine, therefore, is definitely, oriental in its agricultural system. The reasons are twofold. In the first place, as has been seen in Chapter I of this Report, agricultural holdings are small and do not require more than the labour of the cultivator, assisted as he may be by his wife and children; and, secondly, the agriculture is primitive, so that skilled labour for machinery and scientific agriculture is not required⁴. In general, the life of the Arab peasant is one of inactivity. Agriculture is dependent on the rainfall, except in a few localities in which perennial irrigation is available; and, beyond the exertions of ploughing, sowing and reaping for winter and summer crops, the cultivator has little with which to occupy himself. Barley and wheat of not too good a quality: an inferior form of millet and an occasionally successful and valuable crop of sesame provide the means of subsistence of the greater part of the population. A restricted area of the country benefits from a usually successful crop of watermelons; and olives provide a fairly valuable adjunct to the

¹ I am inclined to think, however, that while the general tendency is in the right direction, the whole return is far from reliable, and should be used with great discretion.—E.M.

² While it is a matter for some regret that it was not possible to differentiate, at the enumeration, between cultivating landlords and tenant cultivators, the experience both of India and Egypt suggests that no great confidence could be placed in the results viewed in the perspective of land tenures.—E.M.

³ These figures relate only to earners and do not, of course, include the numbers of working dependants who might be considered as agricultural labourers, but are not a charge on agriculture since they are not hired labourers.—E.M.

⁴ It will be clear that I am discussing Arab agriculture in the main, but remarks as to the small size of holdings apply equally to Jewish agriculture, which, however, benefits through an organization of skilled scientific advice and the facilities for using agricultural machinery.—E.M.

means of subsistence of Arab agricultural families. On the other side, no skill or scientific experience is applied to these forms of agriculture, which is maintained at the present day very much as it was during centuries past. It will take a long time before this traditional inertia can be dissipated and more valuable forms of agriculture instituted. In the meantime, it would seem necessary to develop organized industry in small groups in order to utilize the man-power available in villages which, at present, is only partially absorbed by agriculture. Not only will this have the effect of creating an industrious community, but it will enrich the peasant and raise his standard of life which, on any criterion, is extremely low. The institution of the co-operative system, in existence for Jews and under consideration for Arabs, may accomplish much in this direction, since, effectively in operation, it leads to the organization of secondary occupations and industries that ensure that the products of the field secure a proper market.

One of the most important factors contributing to the indifferent character of ordinary cultivation as practised by Arab agriculturists has been the system of tenure known as *mesha'a*. Under this system relatively large groups of persons hold cultivable land in personal shares in undivided ownership, and each owner changes his holding at regular periods which vary with different localities. As a general rule, occupancy of a specific holding changes once in two years. This primitive tenure is, of course, not peculiar to Palestine: the theory of the tenure seems to be that the group of co-owners have common dominion over the whole land, each owner receiving as his holding the amount of land corresponding to his undivided interests of ownership; but, in order to assure equality of treatment to all co-owners, so that all have the same chance of good and bad land over a course of years, the occupancies are varied in rotation at stated periods. It is not difficult to believe that such a system of tenure is a democratic expression of the benevolence of a patriarchal system of social organization characteristic of eastern peoples. It will be comprehended that it is a system that is disastrous to efficient agriculture. The cultivator cannot, in such a system, develop his temporary holding because, if he do so, some other co-owner will later reap the fruits of his enterprise. In these circumstances it is satisfactory to learn that the system, once fundamental in the organization of the social group of the village, is rapidly breaking down by the voluntary agreement of the various co-owners: and it may be anticipated that the standard of cultivation will rapidly improve, particularly if it be found possible to provide the means by which cultivators can obtain capital on fairly easy terms¹.

Order 1 (b)—
Growing of
special
products and
market
gardening.

257. A population of 51,476 persons is supported by the growing of special products. About one quarter of these derive their livelihood from the cultivation of oranges, and the remainder from the cultivation of other fruits, vegetables, vines and the maintenance of nursery gardens. In orange cultivation there are 3,578 earners of whom 1,917 Moslems, 1,493 are Jews and 165 are Christians, there being three other earners in the minor religious confessions. Of the 10,849 earners, who are engaged in the growing of other special products, 6,802 are Moslems and 3,195 are Jews. The growing of vegetables has, indeed, developed considerably during the past five years, while the cultivation of grapes has a long tradition behind it among Arabs. Cultivation of grapes among the Jews has been developed mainly for the manufacture of local wines, but, of recent years, great progress has been made in supplying table grapes of the varieties most attractive in appearance and in taste. The cultivation of apricots, peaches and nectarines has also developed considerably in recent years, and a small but remunerative export trade to neighbouring countries is susceptible of extension.

¹ Since I wrote this paragraph I have been informed that, in the Gaza sub-district where patriarchal organization of villages is strongest and where the *mesha'a* system of tenure has been most firmly established, cultivators, who have partitioned the common holding, have already purchased the means for a more intense utilization of the soil. Moreover, these cultivators do not appear to have obtained facilities from money-lenders. It is also significant that the Land Settlement Officer at Gaza has, of late, noticed that peasant women have been frequently seen purchasing jewelry and bangles of gold. This phenomenon may represent distrust of currency, but it is of interest as showing possession of wealth in the form of money, and as diluting belief in the complete destitution of the peasant class.—E.M.

258. The population supported by the raising of farm stock and cognate activities is 23,179 of whom 22,199 are Moslems. The most important activities in this order are, first, the raising of sheep and goats which supports 9,284 persons of whom 8,983 are Moslems, and, secondly, the occupations of herdsmen, shepherds and goatherds, supporting 11,097 persons of whom 10,757 are Moslems.

Order 1 (d)—
Raising of
farm stock
and stud
service.

259. So far the discussion has been about agricultural pursuits as principal occupations: but, as has been explained earlier, all earners who followed a less profitable enterprise could have returned a subsidiary occupation; and all dependants who followed a non-gainful occupation were also able to return that occupation as subsidiary. The tables of subsidiary occupations, whether combined or not combined with agricultural occupations, relate only to earners and not to the several populations supported by each occupation. It is unlikely, however, that the omission of dependants from these tables makes any material difference when the proportional and not the absolute statistics are in question.

Agriculture
combined
with other
occupations.
(a) Where
agriculture
is the
principal
occupation.

The agricultural population has been taken to consist of rent-receivers, actual farmers engaged in ordinary cultivation, and agricultural labourers. The earners in this population number 108,376 and of these earners 26,240 or 24.2 per cent. have returned a subsidiary occupation, this proportion comprising 1.9 per cent. who returned an agricultural subsidiary occupation, and 22.3 per cent. who derived a secondary livelihood from some activity not concerned with agriculture. It is thus clear that nearly a quarter of the agriculturists would be unable to maintain their present standard of life if they were unable to find a secondary means of subsistence. Of those who derive principal livelihood from the rent of agricultural land 37 per cent., of the farmers 31 per cent., and of the agricultural labourers 7 per cent. returned a subsidiary occupation. On dividing the subsidiary occupations into agricultural and non-agricultural groups it appears that of the landlords 4.5 per cent., of the farmers 2 per cent., and of the agricultural labourers 1 per cent. returned some subsidiary agricultural occupation, thus showing how the different agricultural groups overlap and merge one into the other. Many small landholders live partly on rent and partly on cultivation particularly of the market garden variety; and some cultivators obtain a secondary means of livelihood by working on the fields of their richer neighbours.

Of the subsidiary occupations of agriculturists the most popular are shown below:—

- (i) Rent-receivers most frequently have a subsidiary occupation concerned with the growing of oranges and other fruit, flowers and vegetables: next, for females particularly, with house-management. A number of them are also agricultural labourers and others again breed sheep and goats.
- (ii) Ordinary cultivators most frequently derive a secondary livelihood from the growing of oranges and other fruit, and vegetables; from the breeding of cattle, sheep and goats; from agricultural labour in neighbouring farms; from hiring out and driving camels, mules and donkeys in road transport; from working in stone and marble in the building industries¹; and from the selling of vegetable groceries and oils.
- (iii) Agricultural labourers most frequently augment their subsistence by the growing of oranges and other fruits and vegetables; from the breeding of cattle, sheep and goats; and others are mainly ordinary cultivators of their own lands or receive rents in respect of their own land.

It will be seen that the three main classes of agriculturists have very much the same habits and customs. Indeed, the only difference between them is a mutable degree of prosperity. Indebtedness to the money-lender may quickly

¹ There is a convenient seasonal alternation between the pursuit of agriculture which occupies winter and early spring, and the occupations concerned with the construction of buildings which are most active in the summer and autumn.—E.M.

reduce the ordinary cultivator to the status of the agricultural labourer, the money-lender tending to become the receiver of rents of agricultural land¹.

(b) Where agriculture is the subsidiary occupation.

260. Of the earners whose principal occupation was non-agricultural not quite 3 per cent. claim some form of agriculture as a subsidiary form of livelihood (Subsidiary Table No. *IV*). The proportion varies from over 3 per cent. in the Northern district to under 2 per cent. in the Southern district; and from over 4.5 per cent. among the Moslems, and less than 1.5 per cent. among the Christians, to just over 0.5 per cent. among the Jews. The actual proportions shown in the various orders of occupations are worth study. In general the highest proportions are manifested in those orders of principal occupations in which the absolute number of earners is small. Thus more than 13 per cent. of those who derive their principal livelihood from forestry have some subsidiary agricultural occupation: nearly 6 per cent. of the quarrymen and nearly 7 per cent. of those engaged in salt-mining are also returned as having a subsidiary agricultural occupation. In the Northern district nearly 17 per cent. of the scavengers are also agriculturists. More than 3 per cent. of those who are engaged in the textile industries and in trade in foodstuffs augment their subsistence by the pursuit of an agricultural occupation. Of the Moslem lawyers, more than 6 per cent. add to their fees by some practical interest in agriculture, usually by income from rents of agricultural land in their ownership.

261. No very definite inference can be drawn from the fact that, while 24 per cent. of the earners who have returned agriculture as their principal occupation are partially supported by some other occupation, only 3 per cent. of those whose main occupation is non-agricultural have been returned as partially dependant on agriculture. The difference may reflect the inadequacy of primitive agriculture as a means of subsistence for the normal household, but it would be unwise to be categorical on the point. It is undoubtedly the case that, in eastern traditions, agricultural occupations are held to be more honourable than other forms of employment: it is, moreover, true that the special policy applied to Palestine has raised the standard of life of a large proportion of the people, and has, among the remainder stimulated the desire for a better standard. The difference in the proportions may therefore be due to the expression of both tendencies: first, if there were any doubt in a person's mind as to his principal source of livelihood he would be more likely to return agriculture than some other form of occupation; secondly, the desire for an improved standard of life may have forced agriculturists to adopt a secondary form of livelihood. Other influences may, perhaps, be traced to the post-war political differentiation between Palestine and Syria and the hinterlands, all of which formed one economic unit in the years prior to the war. These post-war arrangements necessitated a new orientation in economic affairs: new channels for disposal of agricultural produce had to be found: and, in the meantime, a certain amount of dislocation as a result of war conditions was inevitable. In such circumstances, it is natural to suppose that agriculturists would seek additional economic security in a variety of secondary activities not endangering their principal form of subsistence derived from agriculture.

Order 2—
Fishing and
hunting.

262. Fishing and hunting support 2,905 persons of whom 2,855 (2,629 Moslems) derive their names of livelihood from fishing. The fish resources of Palestine, both marine and lacustrine, are very valuable; and their proper development would support a greatly larger population than that supported at present. Most of the deep sea fishing is done by an Italian company whose ships discharge their catches at Jaffa and Haifa ports. Very few of the local fishermen are employed

¹ It is worthy of notice that the principal source of livelihood of a number of persons in Palestine is usurious money-lending. This occupation is not prominent in the census returns being disguised under "income from rent of agricultural land" and other dignified sources of income.—E.M.

by the company. The local fishing boats are not adapted either in structure or equipment to deep sea work, and it would seem desirable to encourage the industry to develop on modern lines by means of instruction in the craft of ship-building, and in the use of deep-sea equipment. The control of the fisheries, both marine and lacustrine, is defective. The slaughter of fish by means of explosives; the destruction of immature fish; the obstruction of the passage of fish to their spawning grounds; actual fishing in the spawning grounds are all forbidden by status and are fairly freely practised. The executive control is defective and, when offenders are convicted, the penalties imposed are not sufficiently severe to serve as a deterrent to the repetition of the offence. A constructive policy in regard to fishing would not only lead to an enrichment of Palestine, but would provide a most valuable and nutritious supplement to the meagre diet of the average peasant and poor townsman.

263. The nomadic population has not been included in the general tabulation for the settled population, but a description of its occupational activities is given in Chapter XII (Nomads). It is enough to say here that nomads subsist on ordinary cultivation and on pastoral life. Since nomads are all Moslems, the proportions in the total population of the Moslem population supported by agricultural and pastoral activities are somewhat higher than that shown in the tables for the settled population.

Order 2 (a)—
Nomads.

264. Extraction of minerals supports only 8,013 persons in the settled population of Palestine, and of this number 7,794 are supported directly by the quarrying of hard rocks. More than one half of this population is found in the Northern district. It has already been noted in Chapter I (Distribution of population) that, except in the extreme south, Palestine lacks metallic minerals, so that practically all mining activities are connected with quarrying for building constructions and the metalling of roads within the country. Naturally there is no export trade in these commodities.

Sub-class II—
Extraction of
minerals.

Extraction of minerals soluble in water supports 172 persons of whom 117 are earners. The great majority of these are found in the Jerusalem district and are engaged in the production of bromine and various salts from the Dead Sea, which is one of the richest repositories of soluble minerals in the world. In this regard, it may be noted that the application of scientific knowledge suggests that the available resources of the surface of the earth are almost limitless. Nevertheless, as has been shown in Chapter II (Movement of population) Nature imposes very definite limits on the growth of population; but it is sufficiently clear that the discovery of the real value of a natural product, such as those existing in the Dead Sea, may so change the economic conditions of a country as greatly to facilitate increase of population. It is, of course, true that mineral wealth, in general, is valueless *per se* to sustain life, but it is contributory to the growth of population through the part which it plays in the whole economy of the world. Consequently, while it would be absurd to be unduly optimistic as to the eventual effects of the development of the resources of the Dead Sea, and while the present operations support a trivial proportion of the existing population, it is legitimate to hope that the present enterprise may so expand as to change, perhaps fundamentally, the general economic characters of the population of Palestine, in the direction of increasing public and private capital and income and so improving the general standard of life. These possibilities suggest that there must be a radical improvement in the agricultural occupations of the majority of the population. The increase of wealth following a full development of the mineral resources of the Dead Sea may provide the means for irrigation and for soil conservation and improvement, that are the indispensable preliminaries to a revived and stimulated agriculture.

CLASS B.—PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES.

Sub-class III
—Industry.

265. Occupations connected with the preparation and supply of material substances support 280,815 persons (29 per cent. of the settled population) of whom 78,880 are earners (9 per cent. of the settled population). This class is divided into three sub-classes, namely, industry, transport and trade. Raw materials, produced either as fruits of labour in the occupations in Class A or imported, are converted by industry into finished articles and goods, distributed by transport and passed to consumers in and out of Palestine by trade. Industry supports nearly 14 per cent. of the settled population, transport 5 per cent., and trade nearly 10 per cent.

266. The relations and differences between industry in the occupational sense, on the one hand, and organized industry on the other, have, to some extent, been explained in the opening section of this chapter. For a variety of reasons, there is ground for supposing that the returns in organized industry are defective; the most important of the causes of the defects is to be found in indefiniteness in the original census returns, a phenomenon apparently always associated with this type of census return: a further reason is to be found in the fact that the return was made only by earners, that is, persons who were in receipt of wages or salaries, whereas, according to the Census of Industries taken in 1928 there appear to be a number of persons engaged in organized industry who receive no remuneration in respect of their employment. Such persons are, very often, members of the family of the principal earner. Moreover, the industrial census of 1928 included, in the tabulations, owners and contract labour, whereas, in the general census of 1931, owners were excluded and, for the most part, contract labour was concealed, few returns in its respect being made under organized industry.

The information yielded at the general census of 1931 is given in Table XXI and Subsidiary Tables IX and X at the end of this chapter. The total numbers of earners in each main industry according to the general occupational return as compared with the number of earners returned in each class of organized industry are shown in the following table¹:

Industries connected with	Number of persons supported	Number of earners	
		in occupational distribution	in industrial distribution
1	2	3	4
Textiles	5,418	2,838	799
Hides and skins	1,594	467	14
Wood	14,634	4,535	48
Metals	9,887	3,073	267
Ceramics	3,023	959	220
Chemical products	2,601	708	472
Food	18,135	5,276	1,392
Dress and the toilet	28,980	11,144	80
Furniture	1,478	459	102
Building	37,222	12,064	414
Transmission of physical forces	1,815	777	660
Luxury	6,120	2,220	673
Refuse matter	1,205	392	...

The figures in column 4 of the table above, when contrasted with the results of the industrial census taken in 1928, reveal the great differences between the two sets of results, due to the inclusion in 1928 of owners and of contract labour and of workers not in receipt of wages and salaries, all of which classes of persons were excluded in the classification of organized industry in the general census of 1931.

¹ It is most important to bear in mind that the occupational distribution is in general determined by what a man does, while the industrial distribution is determined by the nature of the finished article.—E.M.

The differences between the occupational distribution in industry and the distribution in organized industry show, in marked manner, that by far the greater part of industry in Palestine is strictly a matter of personal craftsmanship; and that organized industry, in the sense in which that term can be used in the western world, is, in Palestine, only in the very early embryonic stages. Seeing that Palestine is naturally deficient in the production of those raw materials upon which modern organized industry is founded, it would appear that the development of industrial activities depends upon the importation of the necessary raw materials, and that its fate will be ultimately determined by the tariff policy operative in Palestine at any time.

267. Of the 133.6 thousand persons dependent on industrial occupations fewer than 5.5 thousand, or 4 per cent., are supported by the textile industries. Cotton weaving, spinning, carding and cleaning support 1,757 persons; and, since cotton is not a natural product of Palestine¹, the raw material is imported. The weaving and spinning of wool and the making of carpets support 1,584 persons. The knitting of hosiery and the weaving of cloth support 585 persons, while the preparation and cleaning of textiles support 466 persons. The weaving of cloth was, at one time, a village craft; and, while it is still practised in certain villages, notably Majdal in the Southern district, it is now in process of extinction, the manufactured goods from western countries taking the place of the local productions.

Order 6—
Textiles.

268. Only 1,594 persons are supported by industries connected with hides and skins. Some years ago tanning of hides was an occupation of some importance in the rural towns and some of the villages in Palestine; but there has been, even in the last five years, a notable decline in this activity. The finished products of European manufacture have, in this material also, the effect of destroying local crafts. It is possible, however, that the census return is deficient, because village shoemakers sometimes tan the hides which they prepare for leather, and it is largely a matter of chance whether such a person was returned as a tanner or a shoemaker. In the latter event he would be returned under the occupations concerned with dress and the toilet.

Order 7—
Hides, skins,
and hard
materials
from the
animal
kingdom.

Work in bone, ivory and shell supports 568 persons.

269. Industries connected with wood support over 14,000 persons. Of these more than 6,000 are Moslems, more than 5,000 are Jews, and more than 3,000 are Christians. Only 1,419 are supported by work in basket-making and similar woody industries, the remainder deriving their livelihood from carpentry and joinery.

Order 8—
Wood.

270. Not quite 10,000 persons are supported by work on metals. It has already been noted in Chapter I that Palestine lacks metallic minerals, so that the raw material is imported. The numerically most important occupation is the manufacture of iron tools and implements such as ploughshares and the like, the making of tin and zinc articles taking second place. Moslems predominate in the iron industries: Jews in industries connected with tin and zinc.

Order 9—
Metals.

271. Occupations concerned with the making of bricks, tiles, etc., support 3,023 persons, while occupations concerned with building support 37,232 persons. The building industries are numerically the most important in Palestine providing livelihood for nearly 4 per cent. of the population. Of the 37.2 thousand persons so supported 17.7 thousand are Moslems, 13.2 thousand are Jews, and six thousand are Christians. The detail of occupations under the head of "Ceramics" shows that over one thousand persons are supported by work in talc, mica, etc., the manufacture of artificial teeth and activities connected with dental mechanics, and the making of mother-of-pearl articles. Not quite one thousand are supported

Order 10—
Ceramics,
and Order 15
—Building.

¹ Experiments in cotton-growing have not, so far, been successful owing largely to infestation of the plant by boll-worm.—E.M.

by the manufacture of bricks and tiles, while nearly nine hundred are supported by the manufacture of pottery articles. The manufacture of artificial teeth is a Jewish industry, while the making of mother-of-pearl articles usually as mementos of the Holy Land or associated with religious devotion is practically a Christian monopoly confined to Bethlehem and Jerusalem. Pottery is principally a village craft; and there is good reason for supposing that it is in rapid decline, domestic utensils, made of metal and imported from Europe, supplanting the products of the local craft.

The principal occupations connected with the building industry are working and crushing stone, bricklaying and masonry, supporting about about 20 thousand persons, and all the occupations ancillary to house construction such as tiling, plumbing, painting, etc., supporting nearly 17 thousand persons. The need for houses, offices, shops and factories due to the claims of a population, growing at a very high rate as a result of natural increase and immigration, has developed these activities beyond all expectation some ten years ago; and it does not seem probable that the industry will decline for some time to come. There is, of course, a manifest danger in building beyond the estimated requirements of a population at any time, but, in Palestine, the demand for housing and for professional and commercial accommodation, exceeds, and is likely to exceed for some time to come, the supply. It may be added that the local Arab workmen are beginning to learn something of the technique of construction in ferro-concrete, but most of this highly specialized work is, at present, in the hands of Jews. The making of cement has been undertaken on a fairly large scale in Palestine, there being an outcrop of the necessary primary material in the range of Mount Carmel. It would seem, therefore, that the building industries, founded as they are on natural products of Palestine, may form a valuable means of subsistence to a growing proportion of the population, provided that their development is wisely controlled and directed.

**Order 11—
Chemical
products
properly so
called and
analogous.**

272. It is not to be expected that in a backward country such as Palestine a large number of persons should be engaged in occupations connected with chemical products. The actual population supported is 2.6 thousand, of whom one thousand derive their livelihood from the manufacture of soap. The manufacture of soap among Arabs has a respectable history in Nablus (Shechem). This manufacture is primitive in its technical aspects consisting as it does of the elementary saponification of olive oil by means of caustic soda in open vats. The purity of the constituents in the resulting products made the soap famous in Egypt and the Middle East generally. The soap, however, does not lather well in the hard waters characteristic of Palestine, and is being replaced in common use by the blander varieties of soap imported or manufactured in Palestine under more modern methods.

The manufacture and refinery of vegetable oils support about 800 persons. These industries, like that of the manufacture of soap, divide themselves naturally between the primitive and the modern methods. The cultivation of olives is of great antiquity in Palestine, and the crushing of the fruit and the refinery of the oil have played an important part in the economic life of many villages. The methods used are, however, primitive; and, while the fruit and the oil are of good quality, the costs of primitive production appear to be too high to permit favourable open competition with imported olives and oil from the larger olive-growing countries of the Mediterranean basin. A modern refinery has been established at Haifa where not only are refined oils being produced from various oil-bearing vegetables, but also soap of good quality is manufactured.

**Order 12—
Food
industries.**

273. Food industries support 18.1 thousand persons of whom 10 thousand are Moslem and 5.6 thousand are Jews. The population dependent on these industries is, therefore, not quite 2 per cent. of the settled population. Bakers and butchers are numerically the most numerous in this group, millers, tobacco manufacturers and makers of sweetmeats coming next in the order named.

274. Nearly 29,000 persons, or about 3 per cent. of the settled population, are supported by industries connected with dress and the toilet. Of these persons 11.3 thousand are Moslems, 12.4 thousand are Jews, and 5.1 thousand are Christians. The population dependent on the making of boots, shoes and sandals is nearly 11 thousand, the Moslems exceeding the Jews by about 1.3 thousand. Tailors, milliners, dressmakers, etc., support nearly 9 thousand persons of whom 2.2 thousand are Moslems and 5.2 thousand are Jews. Hairdressing and cognate activities support over 5 thousand persons of whom 3.5 thousand are Moslems and 720 are Jews.

Order 13—
Industries of
dress and the
toilet.

275. The only remaining order of occupations is that concerned with occupations in the making of articles of luxury, printing, etc. These occupations support over 6,000 persons in Palestine. Printing, lithography and engraving support 1.8 thousand persons, of whom 1.4 thousand are Jews. Makers of bangles, rosaries, necklaces and picture frames support 1.3 thousand persons, more than one half of whom are Jews.

Order 18—
Industries of
luxury and
those
pertaining
to literature
and the arts
and sciences.

276. Activities connected with transport form the livelihood of 50,620 persons (5.2 per cent. of the settled population) of whom 34,709 are Moslems, 9,629 are Jews and 6,062 are Christians. More than 70 per cent. of this supported population is dependent on occupations connected with road transport, about 13 per cent. on occupations connected with rail transport, about 11 per cent. on occupations connected with water transport, and about 4 per cent. on the postal, telegraphic and telephonic services. The figures are witness to the enormous expansion of road transport during recent years; indeed, the whole group of activities connected with road communications ranks with the building industry in importance and potential development. The smallness of the country and the excellence of its road communications have combined to make transport by road both of persons and of materials the most effective means of distribution; and it would seem that the taxpayer will be called for many years to support the charges on capital invested in the Palestine railways. It should be remembered that the broad-gauge railway between Egypt and Palestine was constructed during the war for military purposes: its present commercial utilities are obvious; and its eventual importance as a link between the projected trans-desert railway system and the Palestine and Egyptian ports cannot be doubted; but, until it serves in that ancillary capacity for bulk traffic, it seems probable that the facilities provided for small bulk traffic within Palestine in road transport will increase in popularity. In such circumstances, it will prove difficult to reconcile the interests of the taxpayer in the railways and the interests of producers and consumers desiring door-to-door delivery of goods of small bulk.

Sub-class IV.
—Transport.

277. Trade of all kinds supports 96,597 persons or nearly 10 per cent. of the settled population. Five eighths of this population depend on the sale of foodstuffs in hotels, restaurants and cafés and shops. Trade in textiles supports nearly 9 thousand persons; brokers, commission and export agents provide livelihood for 4.8 thousand persons, banks for nearly 3 thousand, while trade in clothing and toilet articles provides subsistence for nearly 3.5 thousand persons. Itinerant traders and pedlars support a population of nearly 7,000 persons. Other forms of trade are numerically unimportant, and, viewed in European perspective, the numbers supported appear to be surprising; but, as has been emphasized before, where a person was returned as both the maker and seller of an article he was classified within the industrial groups of occupations, and was excluded from the trading groups. In Europe most tradesmen are middlemen and fall definitely within the trading categories: but, in Palestine, many makers of articles do their own trading, and, under the classification adopted, are, with their dependants, excluded from the population supported by trading occupations. Another difficulty, experienced in the returns at the census and propagated into the classifications, is concerned with the indefiniteness of the returns of tradesmen who deal in mixed goods of totally different character, and it is often a matter

Sub-class V.—
Trade.

of chance under which type of commodity these tradesmen prefer at the moment to specify their activities.

CLASS C.—PUBLIC ADMINISTRATION AND LIBERAL ARTS.

Class C—
Public
administra-
tion and
liberal arts.

278. The public administration and the liberal arts and professions support 83,696 persons or 8.6 per cent. of the settled population; namely, public force 12,702, public administration 11,716, the professions and liberal arts 35,481, and persons of independent means 23,797. Public force includes units of His Majesty's Army, Air Force, units of the local Trans-Jordan Frontier Force, and the local Palestine Police with its Palestinian and British sections¹. The number of earners in the public forces is 6,100 among whom are included 30 females. If members of the nursing services are comprised under this head, it would have been clearer had they been returned as following the occupation of nursing and as employed with His Majesty's Forces. The number of earners returned under Police is 2,971 of whom 25 are females. The presence of females in the return suggests that wardresses have been included as members of the Police Force, owing to the fact that they did not state their personal occupations within the organization. Since the number of police constables employed at the date of the census was 2,476 it may be inferred that the balance between the number of actual earners in the Force and the number of actual earners in the Police Force returned at the census is made up of individual members of various village and municipal forces of watchmen, who were not returned under the special group for watchmen. If that inference be valid, public security is maintained by one man, engaged on watch and ward and cognate police duties, for every 350 persons in the total population inclusive of nomads. Since village *ghafirs* (watchmen) are usually occupied in agriculture, it is probable that a proportion of them returned cultivation as their principal means of livelihood and, in so far as that be the fact, the return of *ghafirs* may suffer the defect of understatement. Of the total population supported by occupations within the public forces, including His Majesty's Army and Air Force, 52.5 per cent. are Moslems, 9.8 per cent. are Jews, and 37.2 per cent. are Christians.

279. As has been noted in the introductory section to this chapter, under the head "Public administration" are classified only those persons in the public service, omitting the Police Forces but including members of the consular services, who cannot be classified under one or other of the learned professions. In this sense public administration supports 11,716 persons or 1.2 per cent. of the settled population. Direct service of the State supports just over 7 thousand persons, while consular services support 323 persons. Service of municipal and other local authorities, excluding village, supports just over 3.4 thousand persons or nearly 50 per cent. of those dependent on direct service of the State. Of the population supported by occupations within the whole sub-class of "Public administration", 52.7 per cent. are Moslems, 18.5 per cent. are Jews, and 28.5 per cent. are Christians. Occupations have not been correlated with citizenship, but it is obvious that the Christian proportions would be materially reduced if allowance were made for the number of European Christians employed in the public service.

280. Of the 35,481 persons supported by the liberal arts and professions rather more than one third are dependent on occupations connected with religion; and nearly one third on occupations connected with instruction. Medicine supports 5.3 thousand persons, of whom 3 thousand are Jews and less than one thousand are Moslems. Law supports about 2.5 thousand persons of whom 1.5 thousand are Moslems and 741 are Jews.

¹ There is no Navy in Palestine and the 14 persons returned as supported under that head were all visitors. One Moslem returned with ten dependants may have been a mess waiter in one of His Majesty's ships, but probably the enumerator made a mistake in the entry.—E.M.

281. The number of persons of independent means is surprisingly large, being 23,797, or nearly 2.45 per cent. of the settled population. Rather more than one half of these are genuinely persons of independent means, the remainder living on remittances received from abroad, most of whom are dependent on charitable organization. The detail by religion is given in the following table :—

Means of support	Persons supported			
	All religions	Moslems	Jews	Christians
Independent means	12,737	5,440	4,288	2,966
Remittances from abroad	11,060	2,161	4,257	4,617

It is certain that the number of Jews who are dependent on remittances from abroad is larger than that stated, since many of those so dependent returned themselves as students of the Talmud or the Law, and, as such, have been classified under the religious occupations (Inmates of monasteries, students of religion, etc.)¹. It is also possible that the number of Christians supported by remittances from abroad derived from charitable sources is greater than that revealed at the census, but the evidence is not so clear as in the case of the Jews.

CLASS D.—MISCELLANEOUS.

282. This class includes all occupations that cannot be properly assigned to other parts of the general scheme of classification. The persons dependent on this variety of activities number 76,807 (nearly 8 per cent. of the settled population) of whom 17,188 (not quite 1.8 per cent. of the total population) are supported by paid domestic service. Of the domestic servants who are earners 3,908 are males and 6,238 are females. The number of female domestic servants per mille of the settled population is thus only six. In the Census Report for England and Wales 1921 it was stated that the ratio of indoor female domestic servants to the total population affords a convenient, and on the whole reliable, measure of wealth. As was pointed out in that report the function is not an exact measure, but it must evidently vary roughly in accordance with the proportion of each population in sufficiently easy circumstances to afford the luxury of paid domestic service. On this basis the ratio for England and Wales was 30 indoor domestic servants per mille of population. The lowest proportions returned in England were 17 per mille in respect of the county of Lancashire (which, however, is by no means the poorest area in England) and 18 in respect of the county of Stafford. Since the tradition of male domestic service is dying rapidly in England², it is fairer to compare the ratios of domestic servants of both sexes in Palestine, where eastern traditions are still strongly manifest, and of female domestic servants in England and Wales to the respective total populations of areas in the two countries. The proportion of paid domestic servants of both sexes in Palestine to the total population is then 10 per mille, which compares with the ratio of 18 paid female domestic servants per mille of population in the country of Stafford. In so far as this ratio may be taken to measure roughly the wealth of the respective communities, it is clear that the population of

Class D—
Miscellaneous

¹ A proportion of the Jewish populations of Tiberias, Safad, and Jerusalem depend upon *Chaluka*, a system of charitable distribution by means of which a number of males occupy themselves entirely in study of religious law and are not engaged in secular occupations.—E.M.

² In England and Wales, 1921, the female indoor paid domestic servants outnumbered the males by 19 to 1, forming 95 per cent. of the total of both sexes so occupied.—E.M.

Palestine is definitely poor. Seeing that a large proportion of the domestic servants in Palestine are employed by the European immigrant communities, comprising members of the British and consular services and the wealthier Jewish settlers, the native-born population can only be described as near the poverty line as this would be drawn in European populations.

283. Persons supported by vagrants, prostitutes, etc., number 2,472, of whom 461 are male and 361 female earners ; while those supported by casual charity number 8,119. Casual charity has a strong tradition in eastern countries, and a number of cases, in which beggars have been arrested as committing nuisances, have shown that many of them must be far wealthier than thousands of persons who work honestly at unremunerative agriculture and certain forms of urban occupations.

ORGANIZED INDUSTRY.

The general statistics.

284. It has been shown in the introduction to this chapter that there may be ground for doubting the reliability of the returns made in respect of employment in organized industry. Unfortunately there is no means to hand enabling the student to assess the degree of reliability. The Census of Industries taken in 1928 is based on a definition of industry that has no parallel in the general census taken in 1931 ; and the results include details of owners, workers not in receipt of wages, and contract labourers, who would not, in all probability, be returned in the general census as connected with organized industry. It is probably true that a not negligible proportion of labour in Palestine is not employed directly but under contract, industry being in its embryonic stage and its directors not being anxious to commit themselves over long periods or to undertake risks that some contractors are willing to assume.

To some extent the general statistics of organized industry have been utilized in the discussion of the industrial occupations in the preceding chapter. It is remarkable that there is general correspondence between the proportions of earners occupied in industry to those employed in organized industry and the similar functions found for India as a whole in 1911, where statistics of organized industry were founded on special returns for factories, employing not less than 20 persons¹. Notwithstanding this parallelism it would be folly to base any confident conclusions on the results of the census of Palestine taken in 1931 as bearing on organized industry. It would be well to take a specific industrial census as soon as possible based on the conceptions used in the general census. If the results of such an industrial census manifested a fairly close correspondence with those of the general census of 1931, the methods used in 1931 might well be employed with some confidence at future population censuses to be taken in Palestine.

The subsidiary statistics

285. Although the absolute statistics of organized industry may be unreliable, it is possible that the returns are sufficiently numerous to be representative of the whole population engaged in industry, so that the proportional statistics found in Subsidiary Tables Nos. IX and X, to be found at the end of this chapter, may reflect tolerably accurately certain features of employment in Palestine.

In so far as this assumption may be valid, 20 per cent. of the earners in paid employment are engaged in industries connected with food, drink and tobacco ; 13 per cent. in industries connected with the means of transport ; and 11.5 per cent. in industries connected with textiles. Not quite 10 per cent. are employed

¹ Obviously this correspondence cannot be pressed too closely.—E.M.

in industries connected with printing and stationery ; and rather more than 9.5 per cent. are employed in enterprises concerned with the transmission of power and the manufacture of ice. There is nothing inherently improbable in these proportions. Moreover, the distribution of males and females engaged in the various classes of industry are in accordance with normal expectation.

The proportions of foreigners to Palestinians engaged as directors, supervisors and clerks in the various classes of industry will be found in Subsidiary Table No. X ; also the ratios of females to employed in each class together with the proportions of juveniles employed. All these functions may reflect the facts and, in any event, throw considerable light on the internal relations within industry and within the classes of industry ; but, until a specific industrial census gives ground for supposing that the information is tolerably representative of the true conditions, it would be most unsafe to generalize freely from them. In other words, the figures should be studied as yielding possible clues to improvement and progress, but should not be adopted, without special confirmation, as the basis of general policy towards and in industry.

ALPHABETICAL INDEX OF OCCUPATIONS.

Occupation	Group No.	Occupation	Group No.
A		A	
Accompanist	169	Astrologer	167
Accountant (Bank)	111	Astronomer	167
Accountant (Commercial)	175	Asylum. Inmate of—	178
Accountant (in Government service)	151	Asylum service	163
Accountant (Military)	146	Attar (of roses) preparer	60
Accountant (Municipal and Local Council)	153	Attar (of roses) seller	132
Accountant (Railway)	108	Attorney	160
Accountant (Village service)	155	Auctioneer	111
Accounts writer	151	Auditor (Commercial)	111
Acrobat	144	Auditor (Government)	151
Actor	169	Auditor (Railway)	108
Actuary	175	Auspicious days indicator	167
Advisers in stock raising and daily production and poultry breeders	13	Author	167
Advocate	160	Aviator	147
Aerated water factory (owners, workmen, etc.)	56	B	
Agent of landed estate (not planter)	3	Bag (canvas) maker	28
Agent (Bank)	111	Bag (leather)	38
Agent (Carting)	112	Baker	62
Agent (Commercial)	112	Ballast digger	21
Agent (Commission)	112	Ballast, Labourer carrying—	109
Agent (Insurance)	111	Bamboo articles. Maker of—	42
Agent (Law)	160	Bamboo furniture seller.. .. .	133
Agent (Railway).. .. .	108	Bamboo mat maker	42
Agent (Ship)	101	Bamboo mat seller	133
Agent (Tourist)	112	Bamboo. Worker in—	42
Agent (Warehouse)	112	Bandmaster (Military)	146
Aggal manufacturer	71	Bandmaster (not military)	168
Agriculture, Director of—and staff	3	Bandsman (Military)	146
Agricultural chemist	167	Bandsman (Police)	149
Agricultural expert	3	Bandsman (not military)	168
Agricultural implement maker	44	Bangles (glass). Maker of—	50
Agricultural instructors not in educational institutions	4	Bangles (brass). Maker of—	47
Agricultural labourer	5	Bangles (gold and silver). Maker of—	94
Agricultural land. Income from rent of—	1	Bangles (other or unspecified materials)	95
Agricultural machines owners, lessors and drivers	16	Bangles (all kinds). Seller of—	139
Aide-de-Camp	151	Banker	111
Allowance from relatives	170	Banker's agent, employé	111
Almanac maker	167	Bankrupt	179
Almanac seller	140	Barber	76
Almond grower	7	Bard	168
Almond seller	126	Bargeman. Barge-owner	103
Alms (See Beggar)	—	Bar-keeper. Bar-man	120
Ammunition maker	55	Bark collector	9
Ammunition seller	118	Bark seller	115
Amulet maker	94	Bark. Worker in—	42
Amulet seller	138	Barley meal seller	128
Analyst	167	Barrister	160
Animal breeder	12	Basket maker	42
Animal catcher	18	Basket seller	115
Animal stuffer	96	Bath house (owners, employés, etc.)	77
Animals (trained). Exhibitor of—	144	Bathing establishment	77
Antiquities. Dealers in—	140	Bead maker	95
Appraiser (Custom house)	151	Bead seller	139
Apprentice (Government office)	151	Beadle	159
Apprentice (Printing press)	89	Bear dancer	144
Apprentice (Shop)	175	Bedding maker	79
Arboricultural expert	3	Bedding seller	133
Archaeologist	167	Bedstead (of any material) maker	78
Architect	166	Bedstead seller	133
Armourer	45	Bee keeper	15
Arms maker	45	Beggar	179
Army doctor	162	Bellows. Blower of blacksmiths—	46
Army officer. Non-commissioned—	146	Bell metal. Seller of—	116
Army officer (Retired)	170	Bell metal. Worker in—	47
Army officer local (incl. T.J.F.F.)	147	Bell metal utensils. Maker and repairer of—	47
Art. Dealer in objects of—	140	Bell metal utensils seller	134
Art. Superintendent of School of—	164	Bell ringer (Church)	158
Artificial eye, leg, etc., maker	93	Belt maker	74
Artificial eye, leg, etc., seller	138	Bible reader	158
Artificial teeth manufacturer	54	Bicycle dealer	136
Artisan (unspecified)	177	Bicycle maker, repairer	85
Artist	167	Bill broker	112
Ass breeder	12	Bill collector (Bank)	112
Ass dealer	136	Bill collector (unspecified)	175
Ass (pack) owner, driver	106	Bird catcher	18
Assistant (Commercial)	175	Bird keeper, breeder	15
Assistant District Commissioner	151	Bird seller	123
Assistant surgeon	162	Biscuit factory (owners, workmen, etc.)	62

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
B		B	
Biscuit maker	62	Bullock cart driver, owner	106
Bishop	156	Bullock dealer, hirer	136
Blacksmith	46	Bullock (pack) driver, owner	106
Blacksmith's servant	46	Business man (unspecified)	174
Blanket seller	133	Butcher	64
Blanket weaver	30	Butler	172
Bleacher of textiles	34	Butter maker	66
Blood boilers	36	Butter seller	123
Boarding house keeper	120	Buttons maker	74
Boat builder, painter, repairer	87	Buoys. Care of—	100
Boatman, boat owner	103		
Boat seller	136	C	
Boats. Unloader of—	107	Cabinet maker	78
Body guard (Kawass)	151	Café manager, etc.	120
Body guard (Kawass to Consuls)	152	Cage maker	96
Boiler inspector	151	Cage seller	139
Boiler maker	46	Cake maker	62
Bomb seller	118	Cane seller	125
Bone black. Manufacturer of—	60	Call man (Telegraph and telephone)	110
Bone seller	114	Camel attendant	14
Bone. Worker in—	40	Camel breeder	12
Bone workmen	40	Camel dealer	136
Bonnet maker	71	Camel driver	106
Book agent	140	Camel hair worker	31
Book binder and stitchee	91	Camel (pack) owner	106
Book keeper (unspecified)	175	Can (tin) maker	48
Book maker (horse racing)	97	Canal labourer and constructor	102
Book publisher, seller	140	Candle maker	60
Boot maker	73	Candle seller	118
Boot seller	132	Cane maker	74
Boot polish maker	60	Cane seller	132
Botanical garden. Labourer in—	97	Canvas maker	29
Botanist	167	Canvas seller	113
Bottle seller	134	Cap maker	71
Box (leather) maker	38	Cap seller	132
Box (tin) maker	48	Capitalist	170
Box (wood) maker	41	Captain (mercantile service)	101
Bracelet (See Bangle)	—	Captain (Military)	146
Braid (gold and silver) maker	35	Captain (Naval)	148
Braid (silk) maker	35	Carbonic acid gas manufacturer	60
Brakeman	108	Car painter	78
Bran dealer	128	Car owner and driver	105
Brass foundry (owners, workmen, etc.)	49	Carcass flayer	36
Brass. Seller of—	116	Carcass remover	98
Brass. Seller of—utensils	134	Cardboard boxes manufacturer	91
Brass utensils. Maker, repairer of—	47	Caretaker (Government office)	151
Brass. Worker in—	47	Caretaker (Lodging house)	120
Bread baker	62	Caretaker (unspecified)	107
Bread seller	125	Carpenter	41
Breeches maker	72	Carpentry works (owners, workmen, etc.)	41
Brewery (owners, workmen, etc.)	68	Carpet seller	133
Brick burner	53	Carpet weaver (cotton)	26
Brick carrier, layer	82	Carpet weaver (wool)	29
Brick maker, moulder	53	Carriage (See also Coachman)	—
Brick pounder (crusher)	82	Carriage builder	85
Brick seller	135	Carriage (Railway) examiner	108
Brick and tile factory (owners, workmen, etc.)	53	Carriage (Railway) workshop (managers, workmen, etc.)	108
Bridge constructor	104	Carriage painter	78
Bristles. Seller of—	113	Carriage seller	136
Bristles. Worker in—	31	Carriage wheel maker	85
Broker. (House, etc.)	112	Carriage wheel seller	136
Broker (Shares and stocks)	112	Carrier of letters (private)	107
Broker. (Unspecified)	112	Carrier (porter)	107
Broker's agent and employé	112	Cart driver, owner	105
Bronze (See bell metal)	—	Cart maker, repairer	85
Broom maker	42	Cart seller	136
Broom seller	133	Carter (Municipal)	153
Brush factory (owners, workmen, etc.)	31	Carting agent	105
Brush maker	31	Carver (ivory)	40
Brush seller	132	Carver (wood and ebony)	41
Bucket (leather) maker	38	Cashier (Bank)	111
Bucket (wooden) maker	41	Cashier (Government)	151
Buffalo herdsman	14	Cashier (Municipal)	153
Buffalo keeper	10	Cashier (unspecified)	175
Buffoon	144	Castrator	163
Bugler (Military)	146	Castor oil presser	58
Bugler (not military)	168	Castor oil seller	122
Builder (Building contractor)	83	Catechist	158
Building contractor	83		
Building materials. Trade in—	135		

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
G			
Catgut sieve maker	42	Cloth weaver (silk)	31
Catgut string preparer	36	Cloth weaver (wool)	30
Cattle breeder and keeper	10	Clothes (old) dealer	132
Cattle dealer	136	Clothing (ready made). Dealer in—	132
Cattle farrier	46	Club. Service in residential—	120
Cattle herdsman	14	Club. Service in turf, polo, cricket, etc.,—	97
Cattle skinner	36	Coach (See Carriage)	—
Celluloid manufacturer	60	Coachman (private)	173
Cement manufacturer and workers	80	Coachman (of public conveyance)	105
Cereal grinder and crusher	61	Coal dealer, agent	137
Chain (copper) maker	47	Cobbler	73
Chain (gold and silver) maker	94	Cocoon dealer	113
Chain (iron) maker	46	Cocoon gatherer	15
Chainman (surveyors)	166	Cocoon winder	30
Chairmaker	78	Coffee roaster	67
Chairman, Municipality	153	Coffee stall keeper	119
Chandler	145	Coin maker (See Mint).	—
Chaplain	156	Collar maker	74
Charcoal burner	9	Collecting clerk (unspecified)	175
Charcoal dealer	137	Collector (Deputy)	151
Charitable fund manager	97	Collector (Municipal)	153
Charity. Persons supported by—	180	Collector of a district	151
Charms. Seller of—	139	Collector (Stamp revenue)	151
Charwoman	172	College hostel staff	164
Chauffeur (of hired motors)	105	Colonel (Army)	146
Chauffeur (private)	173	Comb maker	74
Cheese maker	66	Comb seller	132
Cheese seller	123	Comforter weaver	30
Chemical examiner	167	Commander (Navy)	148
Chemical factory (owners, workmen, etc.)	60	Commercial traveller	112
Chemical products. Dealer in—	118	Commission agent	112
Chemical products. Manufacturer of—	60	Commissioner of a district	151
Chemist (dealer in drugs)	118	Communal property administration, clerk and rent collector	154
Chemist (dispensing)	163	Composer (music)	168
Chief Justice	151	Compositor (Printing press)	89
Chimney builder	82	Concert manager	97
China-ware (See Crockery)	—	Concert player	168
Chocolate maker	67	Concrete. Worker in—	82
Chorus singer	168	Condiment dealer	122
Church service	158	Condiment maker	67
Cigar, cigarette maker	70	Conjurer	144
Cigar, cigarette seller	129	Constable	149
Cinematograph manager or servant	97	Consul and his assistants and clerical establishment	152
Circumciser	159	Contractor. Building—	83
Circus manager or servant (not performer)	97	Contractor for railway works	108
Circus performer	144	Contractor for road works	104
Citrus fruit sellers	127	Contractor unspecified	174
Civil officer	151	Controllor (Government department)	151
Civil service	151	Convnt. Inmate of—	157
Civil surgeon	162	Convict in jail or reformatory	178
Clay figure maker	96	Cook (domestic)	172
Clergyman	156	Cook (in hotel)	120
Clerk (Bank)	111	Cook shop owners	120
Clerk (Broker's)	112	Cooking utensils. Dealer in—	134
Clerk (Customs)	151	Copper (see Brass)	—
Clerk (Education)	164	Copper mine (owners, workmen, etc.)	20
Clerk (Forest department)	8	Copyist (See Clerk)	139
Clerk (Government)	151	Coral articles. Seller of—	139
Clerk (Hotel)	120	Coral worker	40
Clerk (Insurance office)	111	Cord manufacturer	28
Clerk (in holy orders)	156	Cork goods. Dealer in	115
Clerk (landed estate)	3	Cork goods manufacturer	42
Clerk (Lawyer's)	161	Corset maker	74
Clerk (Mercantile)	175	Cotton carpet seller	133
Clerk (Military department)	146	Cotton carpet weaver	26
Clerk (Municipality)	153	Cotton cloth, dyeing, printing, bleaching	34
Clerk (of learned, charitable, etc., societies)	97	Cotton cloth seller	113
Clerk (Post office)	110	Cotton grower	7
Clerk (Printing press)	89	Cotton (raw) dealer	113
Clerk (Railway)	108	Cotton sizer, spinner	25
Clerk (Shipping, steamer)	101	Cotton spinner, carder and cleaner	25
Clerk (Survey office)	166	Cotton thread seller	113
Clerk (Telegraph)	110	Cotton weaver	25
Clerk (unspecified, shops, etc.)	175	Cow (See Cattle)	—
Clock maker, repairer	93	Cow dung gatherer	98
Clock seller	138	Cow dung seller	137
Cloth dyer, printer	34	Cowherd	14
Cloth seller	113	Crane worker on jetty	107
Cloth washer	75	Crape manufacturer	35
Cloth weaver (cotton)	26		

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
C			
Cream seller	123	Dyer (of textiles)	34
Cricketer (professional)	144	Dyer (of used articles)	75
Criers (Village)	155	E	
Crockery. Dealer in—	134	Earring maker	94
Crockery. Maker of—	51	Earring seller	139
Crop watcher	5	Earth worker	104
Crushed foo seller	131	Earthen pot (pipe bowl, etc.) maker	52
Crystal ware maker	50	Earthen toy maker	96
Crystal ware seller	134	Earthen ware articles. Seller of—	117
Cultivator	2	Editor	90
Cultivator of special products	7	Education department (employé)	164
Curd seller	123	Egg dealer	123
Curiosity dealer	140	Electric light works. Employé in—	88
Curiosities exhibitor	144	Electrician (practical)	88
Curtain maker	79	Electroplater	48
Curtain seller	133	Electrotyper	89
Customs house officer	151	Embroiderer (gold wire)	35
Customs preventive officer	151	Embroiderer on leather	38
Cutlery maker	45	Embroiderer on linen	72
Cutlery seller	116	Embroidery maker	35
D			
Dancer, dancing girl	168	Emigration agent, contractor	112
Darner	72	Enamelled articles seller	134
Day labourer	177	Enameller	94
Decorator (House)	83	Endowment (educational, etc.) older	170
Deer breeder	12	Engine driver (factory, etc.)	176
Deer keeper	14	Engine driver (Railway)	108
Delivery agent	107	Engine driver (Steamer)	101
Dental mechanic	54	Engineer (Civil)	166
Dentist	162	Engineer, District—	166
Detective	149	Engineer (Electrical)	88
Devil driver (exorcist)	144	Engineer (Marine)	101
Devotee	157	Engineer (Military, Royal)	146
Diamond dealer	138	Engineer (Municipal)	166
Diamond. Worker in—	94	Engineer (Naval)	148
Die sinker	49	Engineer (Railway)	108
Dispensary service	163	Engineering workshop (owners, workmen, etc.)	46
Distillery (owners, workmen, etc.)	68	Engraver	89
Distillery superintendent	68	Engravings. Dealer in—	140
Distributor (Press)	89	Envelope maker	91
Diviner	144	Essential oils manufacturer	60
Dockyard (managers, workmen, etc.)	100	Excavator	81
Doctor	162	Exchange agent	111
Dog breeder	12	Exchange broker	111
Dog seller	145	Excise officers	151
Doll dancing (marionette)	144	Executive engineer	166
Doll maker	96	Exhibitor of curiosities, wild animals	144
Doll seller	139	Exorcist	144
Domestic service	172	Explosives. Dealer in—	118
Donkey breeder	12	Explosives. Manufacturer of—	55
Donkey drivers and owners	106	Exporter (of goods)	112
Door keeper (Private)	172	Extraction of bitumen from Dead Sea	24
Door keeper (Railway)	108	Eye doctor (oculist)	162
Door keeper (Shop)	175	F	
Drain digger	81	Factory. Inspector of—	151
Draper	132	Factory operative (otherwise unspecified)	177
Draughtsman	166	Fan maker	96
Drawing master	167	Fan (leaf) maker	42
Dredger. Service in—	102	Fan seller	139
Dresser (in hospital)	163	Farm servant	5
Dress maker	72	Farmer (cultivator)	2
Dress (ready made) seller	132	Farmer (of tolls, markets, fisheries, etc.)	145
Driver (See Coachman)	—	Farrier	46
Driver (Engine—on railway)	108	Feathers. Collector of—	18
Driver (Engine—in steamer)	101	Feathers. Dealer in—	114
Drug. Dealer in	118	Feathers. Worker in—	32
Drug. Manufacturer of	60	Felt. Worker in—	32
Druggist (See Chemist)	—	Fertilizers. Dealer in—	118
Drum maker, repairer	92	Fertilizers. Manufacturer of	60
Drum seller	140	Fibre (raw). Dealer in—	113
Drummer (Military)	146	Fibre bag maker	28
Drummer (not military)	168	Fibre matting maker	28
Dung seller (for fuel)	137	Fibre matting seller	133
Dust contractor	98	Field labourer, watcher	5
Dye preparer	57	Fire-arms. Maker of—	45
Dye seller	118	Fire-arms. Seller of—	116
Dye works (owners, workmen, etc.)	57	Fireman (fire engine, municipal)	153
Dyer (Leather)	37		

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
F		G	
Fireman (Railway)	108	Gilder	94
Fireman (Steamer)	101	Ginger seller	125
Fireman (unspecified)	176	Glass bangle (See Bangle)	—
Firewood collector	9	Glass factories (owners, workmen, etc.)	50
Firewood seller	137	Glass necklace seller	139
Fire-work maker	55	Glass (looking) maker	50
Fire-work seller	118	Glass (looking) seller	134
Fish curer	65	Glassware. Maker of—	50
Fish dealer	121	Glassware. Seller of—	134
Fish net maker	28	Glazier	83
Fish net seller	139	Gleaner	5
Fish (preserved) preparer	65	Glovesmaker	74
Fish (preserved) seller	121	Glue manufacturer	60
Fish trap (bamboo, etc.) maker	42	Goat breeder	11
Fisherman	17	Goat butcher	64
Fishing rod maker	96	Goat dealer	130
Fishing rod seller	139	Goat herd	14
Fitter (electric light or gas works)	88	Goat skins (See hides)	—
Fitter (Railway)	108	Gold beater, burnisher	94
Fitter (unspecified)	176	Gold dealer	138
Flax. Worker in—	28	Gold wire drawer	94
Floriculturist	7	Gold. Worker in	94
Flour grinder	61	Golf (See Games)	—
Flour mill (owners, workmen, etc.)	61	Goods (See Piece-goods)	—
Flour seller	128	Governess	164
Flower (artificial) maker	95	Government officers of all grades	151
Flower (artificial) seller	139	Grain broker, dealer	128
Flower garland maker	95	Grain gleaner	5
Flower garland seller	139	Grain grinder, husker	61
Flower grower	7	Grain parcher	63
Flower picker	7	Grain seller	128
Flower seller	139	Grain weigher, measurer	111
Flute (See Musical instrument)	—	Grass cutter	9
Fodder (See Grass)	—	Grass seller	131
Food inspector (Municipal)	153	Grave digger	159
Football (See Game)	—	Gravel digger	21
Footman	172	Greengrocer	126
Forest officer, clerk, ranger, guard, etc.	8	Grindstone maker, mender and setter	81
Forest produce collector	9	Grindstone seller	145
Fortune-teller	144	Grocer	122
Founder (Copper and bronze)	47	Groom (Livery stable)	105
Founder (iron)	46	Groom (Private)	173
Foundry worker (Railway)	108	Guard (Forest)	8
Fowl (See Poultry)	—	Guard (Jail)	151
Fruit (crystallized) seller	126	Guard (Railway)	108
Fruit grower	7	Guard (Temple, mosque, church, synagogue)	158
Fruit picker	7	Guide (See Pilgrim conductor)	—
Fruit seller	126	Guitar (See Musical instrument)	—
Fruit tree grower, grafter, watcher	7	Gun maker	45
Fuel collector	9	Gunner (Military)	146
Fuel oil dealer	118	Gunner (Naval)	148
Fuel seller	137	Gymnastic master	164
Fund holder	170	Gypsum digger	21
Funeral pyre maker	159		
Funeral service. Taker of gifts, etc.	159	H	
Fur. Hunter of animals for their—	18	Haberdasher	132
Fur. Dealer in—	114	Hackney carriage hirer	105
Fur. Worker in—	39	Hair. Dealer in—	113
Furniture factory (owners, workmen, etc.)	78	Hair. Worker in—	31
Furniture maker, polisher, varnisher	78	Hairdresser, plucker	76
Furniture seller	133	Hammerman	46
Furrier	39	Hammerman in railway workshop	108
G		Hanger on	179
Gaiter maker	74	Harbour service	100
Gaiter seller	132	Hardware. Maker of	46
Gambler	179	Hardware. Seller of—	134
Games. Maker of bats, racquets, balls, etc.	94	Harmonium (See Musical instrument)	—
Games. Seller of bats, racquets, balls, etc.	139	Harness maker	86
Garage keeper	120	Harness seller	136
Garden fruits. Seller of—	126	Hat maker	71
Gardener	7	Hat seller	132
Garland (see flower)	—	Hay seller	131
Garlic seller	126	Hawker	143
Garters maker	74	Head constable	149
Gateman (railway)	108	Headman of village	155
Geneologist	162	Health officer	162
Geologist (State or private)	167	Helmet maker	71
Ghaffir	155	Helmet seller	132
		Helmsman, oarsmen	101

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
H			
Hemp fibre seller	113	Iron (old) seller	116
Hemp. Worker in—	29	Iron smelter	43
Herbalist	162	Iron. Worker in—	46
Herdsmen	14	Irrigation Department employes	102
Hides. Curer of—(see also Leather)	36	Itinerant traders	143
Hides. Dealer in—	114	Ivory seller	113
Homoeopathic practitioner	162	Ivory worker	40
Honey collector	9	J	
Honey seller	125	Jailor, jail warder (Government)	149
Horn dealer	114	Jam preparer	67
Horn. Worker in—	40	Jewellery maker (imitation)	94
Horoscope caster	167	Jewellery seller	138
Horse breeder, trainer	12	Jockey	97
Horse dealer	136	Joiner	41
Horse hair. Worker in—	31	Journalist	90
Horse shoe maker	46	Judge	160
Horse trainer (for racing)	97	Juggler	144
(See also driver, farrier, groom, livery stable, race course)		Jute rope maker	28
Horticulturist	7	K	
Hosier	132	Kerosine oil dealer	118
Hosiery knitters	33	Keyman (Railway)	108
Hospital assistant	162	Khan and garage keeper	120
Hospital. Inmate of—	178	Kite maker	96
Hospital. Service	163	Kite seller	139
Hotel keeper, manager, etc.	120	Knife grinder, maker	46
House agent	112	Knife seller	116
House builder, repairer, tiler	83	Koran reader	158
House owner	170	L	
Housekeeper (not domestic servant)	169	Labourer (General)	177
Hunter	18	Lace maker	35
I			
Ice (cream) maker	67	Lace seller	131
Ice factories (owners, workmen, etc.)	88	Lamp lighter (Municipal)	153
Ice maker (ordinary ice)	88	Landholder (cultivating)	2
Ice seller	119	Landholder (non-cultivating)	1
Image (earthen) maker	52	Lash makers	86
Image (metal)	47	Lash sellers	136
Image (stone) maker	167	Latrine cleaner	98
Image (of all kinds) seller	139	Laundry owner and worker	75
Imitation stone manufacturer	82	Law agent, Lawyer	160
Implement (agricultural) maker	44	Law lecturer	160
Implement (agricultural) seller	116	Lawyer's clerk	161
Incense preparer	60	Lead seller	116
Incense seller	118	Lead. Worker in—	48
Income from investments	170	Leaf (Artificial). See Flower (Artificial)	—
Independent means	170	Leather articles. Maker of—	38
India-rubber (See Rubber)	—	Leather articles. Seller of—	114
Industries (unspecified)	99	Leather curer	36
Informers	149	Leather dealer	114
Ink maker	57	Leather dyer	37
Ink pot maker	94	Leather factory (owners, workmen, etc.)	38
Ink seller	140	Leather harness (See Harness)	—
Inn keeper	120	Leather stamper	38
Inspector (Customs)	151	Leather tanner	36
Inspector (Factory)	151	Leaves. Worker in—	42
Inspector (Municipal)	153	Lecturer	164
Inspector (Permanent way)	108	Lecturer in agricultural subjects, botany, physics, etc.	164
Inspector (Police)	149	Leeches seller and earner	15
Inspector (Postal)	110	Lemonade seller	119
Inspector (Railway)	108	Leper asylum. Inmate of—	178
Inspector (School)	164	Letter carrier (private)	107
Inspector (Traffic)	108	Library ersvice	97
Inspector (Vaccination)	163	Lieutenant (Army)	146
Inspector General of Agriculture	3	Lieutenant (Navy)	148
Inspector General of Police	149	Light house service	100
Inspector General of Prisons	149	Lime. Dealer in—	135
Inspectress (Schools)	164	Lime kiln labourer	80
Instrument (musical) maker	92	Lime stone burner	80
Instrument (musical) seller	140	Lime stone quarrier	21
Insurance agent	111	Lime stone seller	135
Interest on investments	170	Lineman (Railway)	108
Interpreter (Court)	161	Lineman (Telegraph)	110
Invitation carrier	107	Linseed (See Grain)	—
Ironer	75	Linseed oil preparer	58
Iron dealer	116		
Iron foundry (owners, workmen, etc.)	43		
Iron monger	116		

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Occupation	Group No.	Occupation	Group No.
L			
Linseed oil seller	122	Mule dealer	136
Liquidator	112	Mule pack owner, driver	106
Liquor dealer	119	Municipal secretary	153
Liquor distiller	68	Municipal service	153
Literary institution. Service in—	97	Museum (officers and staff)	97
Lithographer	89	Music composer	168
Litho-press owner	89	Music. Dealer in—	140
Livery stable keeper	136	Music teacher	168
Load carrier	107	Musical instrument maker, repairer	92
Loan Officer Secretary, etc.	111	Musical instrument player	168
Locksmith	83	Musical instrument seller, hirer	140
Lodging house keeper	120	Musician	168
Looking glass (See Glass)	—	Muslin maker	26
Loom, Loom comb maker	41	Muslin seller	113
Lunatic asylum. Inmate of—	178		
M			
Macaroni manufacturer	62	Nail maker	46
Machinery agricultural owner, lessor and driver	16	Naturalist (Man of science)	167
Machinery dealer	116	Naturalist (taxidermist)	96
Machinery workshop (owners, workmen, etc.)	46	Navy service (all kinds)	148
Magician	144	Necklace maker	95
Magistrate	151	Necklace seller	139
Maid servant	172	Neckties manufacturer	74
Mail carriage contractor, manager	105	Necromancer	144
Major (Army)	146	Net maker, weaver	28
Manager (Animal hospitals)	106	Newspaper manager, proprietor, editors, etc.	90
Manager (Bank)	111	Newspaper vendor	140
Manager (Estates)	3	Nickel dealer	116
Manager (Hotel)	119	Nickel. Worker in—	48
Manager (unspecified)	175	Nomad	19
Manure collector	98	Not ry public	160
Manure seller	141	Nun	157
Marble quarrier	21	Nurse (Child's)	172
Marble. Worker in—(not sculptor)	82	Nurse (hospital, sick nurse)	163
Mason and mason apprentice	82	Nursery man	7
Matches manufacturer and workmen	55		
Matches seller	118	O	
Maz'un (marriage solemnizer)	156	Oculist	162
Meat seller	124	Officer army local (incl. T. J. F. F.)	147
Merchant general	174	Officer (civil) of Government	151
Mercury worker	48	Officer (Education)	164
Messenger	107	Officer (Forest)	8
Metal (precious). Worker in—	94	Officer (Inspecting medical)	162
Metals. Dealer in—	116	Officer (Military)	146
Mica. Worker in—	54	Officer (Naval)	148
Midwife	163	Officer (Non-commissioned)	149
Milkman (milk seller)	123	Officer (Police)	149
Milliner	72	Officer (Post and telegraph)	110
Millinery. Seller of—	132	Officer (Public Works Department)	166
Millstone maker, mender	82	Officer (Railway)	108
Millstone seller	145	Officer (Steamer)	101
Mimic	144	Oil cake seller	131
Miner (limestone, etc.)	21	Oil cloth maker	60
Miner (unspecified)	20	Oil essential manufac urer	60
Mineral water factory (owners, workmen, etc.)	56	Oil man (Railway)	108
Minerals soluble in water extractor	23	Oil mill (owners, workmen, etc.)	58
Minister	156	Oil mineral refiner	58
Mint (Managers, workmen, etc.)	49	Oil press (iron) maker	46
Mirror (See Looking glass)	—	Oil press (wood) maker	41
Mission catechist	158	Oil presser, refiner	58
Mission pensioner	170	Oil seller	122
Mission service	158	Oil. Vegetable—manufacturer	58
Missionary doctor	162	Onion (See Vegetable)	—
Monastery. Inmate of—	157	Optical instruments maker	93
Moneylender, changer, ester	111	Optical instruments seller	138
Moneylender's agent	111	Optician	93
Monk	157	Orange grower	6
Monkey dancer	144	Orange merchant and agent	127
Mosaic seller	139	Orchard keeper	7
Mosaic worker	54	Orderly (Civil)	151
Mosque attendant	159	Orderly (Military)	146
Mother of pearl. Worker in—	54	Orderly (Police)	149
Motor car repairer and body makers	84	Organist	168
Motor car seller	136	Ornament (jewellery) maker	94
Mukhtar of town quarter or local council	153	Ornament seller	138
Mukhtar of village	155	Orphanage. Inmate of—	178
Mulberry (See Fruit)	—	Orthopedist	162
Mule breeder	12		

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

<i>Occupation</i>	<i>Group No.</i>	<i>Occupation</i>	<i>Group No.</i>
O		P	
Overseer (Post Office)	110	Potato grower	7
Overseer (Public Works Department)	166	Potato seller	126
Overseer (Railway)	108	Pottery ware maker (potter)	52
Overseer (Road)	104	Pottery ware seller	117
Overseer (unspecified)	175	Poultry breeder, rearer	15
Oxygen manufacturer	60	Poultry seller	123
P		Powder (tooth) maker	60
Paint. Dealer in—	118	Powder (tooth) seller	132
Paint manufacturer	57	Preacher	156
Painter (artist)	167	Press (printing) proprietor	89
Painter (boat)	87	Priest	156
Painter (carriage)	78	Priest in funeral ceremony	159
Painter (house)	83	Principal of a college	164
Palm leaf. Worker in—	42	Principal of a veterinary college	164
Paper bag maker	91	Printer	89
Paper seller	140	Printing. Government Superintendent	89
Paper (waste) dealer	141	Printing press (owners, workmen, etc.)	89
Parasol maker	74	Prisoner (all kinds)	178
Parchment maker	36	Private means	170
Pastor	156	Private teacher	164
Patient (hospital)	178	Professor	164
Pawn broker	111	Proof reader	89
Pay clerk (See Clerk)	—	Proprietor (of houses, etc.)	170
Pedlar	143	Proprietor (landed estate)	1
Pensioner (All kinds)	170	Prostitute	179
Pepper grower	7	Public entertainment. Place of—(owners, managers, etc.)	97
Perfume preparer	60	Public entertainment. Persons employed in—	97
Perfume seller	132	Public Works Department officers, etc.	166
Periodicals. Seller of—	140	Publisher	140
Petition writer	161	Pumpkin (See Vegetable)	—
Petroleum dealer	118	Pumpman (Railway)	108
Petroleum refinery (owners, workmen, etc.)	58	Puppet dancer	144
Pharmacist (See Chemist)	—	Purser	101
Photo-engraver	89	Pyjamas manufacturer	74
Photographer	167	Q	
Photographic apparatus maker	93	Quack doctor	162
Photographic apparatus seller	138	Quarter Master General	146
Physician	162	Quilt (See Bedding)	—
Piano (See Musical instrument)	—	R	
Pickle preparer	67	Rabbi (Jewish priest)	156
Pickle seller	125	Race course service	97
Picture dealer	140	Rag dealer	141
Picture frame maker	95	Rag gatherer	98
Picture frame seller	140	Railway construction, labourer	109
Piece goods dealer	113	Railway doctor	162
Pig breeder, keeper	11	Railway mail service	108
Pig dealer	130	Railway police	149
Pig. See also Swine (herd)	—	Railway service of all kinds (other than above)	108
Pigeon breeder, fancier	15	Railway sweeper	98
Pigeon dealer	123	Railway workshop (owners, workmen, etc.)	108
Pilgrim conductor	159	Ranger (Forest)	8
Pillow (See Bedding)	—	Razor maker and sharpener	46
Pilot	101	Reader (Religious service)	158
Pipe (earthen) maker	52	Receiver (appointed by court)	112
Pipe (iron) maker	46	Reciter	144
Pitch dealer	118	Record keeper (See Clerk)	—
Pitch worker, melter	60	Refreshment room keeper	120
Planer	41	Refuse matter. Contractor	98
Plank (See Timber)	—	Refuse matter. Dealer in—	141
Plasterer	83	Registrar of Companies	151
Pleader	160	Religious mendicant	157
Plough maker	44	Religious student supported by teacher	157
Plough seller	116	Remittances from abroad receiver	171
Ploughman	5	Rent collector (agricultural land)	3
Plumber	83	Rent collector (Municipal)	153
Poet	167	Rent collector (unspecified)	175
Pointsman (Railway)	108	Rent receiver (agricultural)	1
Police (all grades of police officers and men)	149	Rent receiver (house rent)	170
Pomegranate (See Fruit)	—	Reporter (Newspaper)	90
Pony (pack) owner, driver	105	Restaurant (owners managers, etc.)	120
Porcelain maker	51	Rest house (owners, managers, etc.)	120
Porcelain seller	134	Revenue agent	160
Porter	107	Revenue stamps and postage stamps vendor	145
Portmanteau seller	132	Ribbon manufacturer	35
Portrait painter	167	Ribbon seller	132
Postage stamps vendor	145		
Postmaster General	110		
Post office service (all grades)	110		

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
R		S	
Rice (See Grain)	—	Shampooer	77
Rice cake maker	62	Share and other property (not land). Income from	170
Rice mill (owners, workmen, etc.)	61	Shaver (barber)	76
Rider (Jockey)	97	Shed (corrugated iron) builder	83
Rider (Private)	173	Shell. Worker in—	40
Ring (ornament) maker	94	Shell. Seller of—	113
Ring seller	138	Sheep breeder	11
Road. Breaker of stone for—	104	Sheep dealer	130
Road labourer, contractor	104	Sheep skin (See Hides)	—
Rope maker	27	Sheikhs (Ulema)	156
Rope seller	113	Shepherd	14
Rope works (owners, workmen, etc.)	27	Ship broker (agent)	101
Rosary maker	95	Ship chandler	145
Rosary seller	139	Ship doctor	162
Rose water preparer	60	Ship owner	101
Rose water seller	132	Ship painter, wright	87
Rubber stamp maker	96	Ship's officer, engineer, mariner, fireman, etc.	101
Rubber stamp seller	139	Shirt maker	74
Rug (See Carpet)	—	Shirt seller	132
S		Shoe maker (any material)	73
Sacking (See Bag)	—	Shoe seller	132
Sacristan	159	Shop boy, girl (unspecified)	175
Saddle cloth maker, embroiderer	86	Shop keeper (unspecified)	142
Saddle cloth seller	136	Shop keeper's clerk, servant	175
Saddler	86	Shorthand writer	165
Saddlery. Dealer in—	136	Shunter (Railway)	108
Sail maker	87	Sickle maker	44
Sailor	101	Sickle seller	116
Salesman (unspecified)	175	Sieve maker (bamboo or fibre or catgut)	42
Saltpetre extractor	23	Sieve maker (metal)	46
Saltpetre refiner	60	Signaller (Railway)	108
Saltpetre seller	118	Signaller (Telegraph)	110
Salt preparer, miner, extractor	22	Signboard painter	83
Salt grinder	61	Silk braid maker	35
Salt seller	122	Silk carder, spinner, weaver	30
Sand digger	21	Silk cloth seller	113
Sandal (See Shoe)	—	Silk dyer	34
Sanitary inspector (Government)	151	Silk filature (owners, workmen, etc.)	30
Sanitary inspector (Municipal)	153	Silk lace maker	35
Saving (See Shares)	—	Silk lace seller	132
Saw maker	46	Silk raw dealer	113
Saw mill (owners, workmen, etc.)	41	Silk thread maker	30
Sawdust seller	115	Silk worm rearer	15
Sawyer	41	Silver (braid) maker	35
Scavenger	98	Silver. Dealer in—	138
Scholarship holder	170	Silver wire drawer	94
School inspector, master	164	Silver. Worker in—	94
Scientific instrument maker, mender	93	Singer	168
Scientific instrument seller	138	Sizer (of cotton)	25
Scissors maker	46	Skin (See Hides)	—
Scissors seller	116	Slaughterer	64
Screen maker	78	Slipper (See Shoe)	—
Screen maker (Bamboo)	42	Snake charmer	144
Screen seller	133	Snuff manufacturer	70
Scribe (public)	165	Snuff seller	129
Scripture reader	158	Soap factory (owners, workman, etc.)	59
Sculptor (See also image maker)	167	Soap seller	132
Seal engraver	49	Societies. Employés of learned, charitable, etc.	97
Seaman (Merchant service)	101	Socks maker	33
Seaman (Navy)	148	Socks seller	132
Secretary. Government—	151	Soda water factory (owners, workmen, etc.)—	56
Secretary of societies	97	Soda water seller	120
Secretary of village	155	Soldier (Army)	146
Seed (garden) seller	145	Soldiers army local (incl. T.J.F.F.)	147
Serai (owners, managers, etc.)	120	Solicitor	160
Sergeant (Military)	146	Soluble minerals extractor	23
Sergeant (Police)	149	Souvenir goods. Dealer in—	140
Sericulturist	15	Spade maker	44
Servant (Groom, coachman, dog boy, etc.)	173	Spade seller	116
Servant (indoor, e.g. cook, bearer, water-carrier)	172	Spangle maker	95
Servant (in trade or industry unspecified)	175	Spangle seller	138
Service in residential clubs	120	Spectacles maker	93
Service (charitable, etc.) societies	97	Spectacles seller	138
Service (turf, polo, club, etc.)	97	Spice dealer	122
Sesame oil presser	58	Spirit distiller	68
Sesame oil seller	122	Spirit seller	119
Sewing machine maker, repairer	46	Spiritual guide	156
Sewing machine seller	116	Stable boy (See Groom)	—
		Stable manager	105
		Stable refuse. Dealer in	141

ALPHABETICAL INDEX OF OCCUPATIONS.—*continued.*

Occupation	Group No.	Occupation	Group No.
S		T	
Stamps vendor (Postage and revenue)	145	Textile. Trade in—	113
Starch manufacturer	60	Textile weavers	33
Station master (Railway)	108	Thatchers	83
Stationer	140	Theatre manager, employés other than performers ..	97
Statistical officer (Medical department)	162	Theatre performer	168
Steamer (See Ship)	—	Theatrical scene painter	97
Steamer service (of all grades)	101	Thought reader	144
Stereotyper	89	Thread maker	26
Stevedore	100	Thread (silk) maker	31
Steward (hotels, clubs, etc.)	120	Ticket collector (Omnibus)	105
Steward on a ship	101	Ticket collector (Railway)	108
Stockings (See Socks)	—	Tie maker	74
Stone breaker for roads	104	Tiles. Dealer in—	135
Stone image maker	167	Tiles. Maker of—	53
Stone mason, sawyer, worker, crusher	82	Tiler	83
Stones (precious). Dealer in—	138	Timber dealer	115
Stones (precious). Worker in—	94	Tin. Dealer in—	116
Stone quarrier	21	Tin. Worker in—	48
Storekeeper general	175	Tinsel maker	74
Storekeeper in Kvutzah (Jewish communal settlement)	155	Tinsmith	48
Straw. Dealer in—	131	Tobacco grower	7
Straw hat maker	71	Tobacco manufacturer	70
Straw. Worker in—	28	Tobacco seller, tobacconist	129
Strawmat maker (Khussar)	28	Toilet articles. Dealer in—	132
Strawmat seller	113	Toll collector	102
String maker	27	Toll inspector	102
Sub-registrar	151	Tomb keeper	159
Sugar cane grower	7	Tool maker, grinder	46
Sugar manufacturers	69	Tool seller	116
Sugar seller	125	Tooth paste and power maker	60
Sulphur digger	21	Tooth paste and powder seller	132
Sulphur refiner	55	Tooth stick maker	42
Sulphur seller	118	Toy maker	96
Surgeon (wherever employed)	162	Toy seller	139
Surgeon. General—	162	Tractor attendants, drivers and owners	105
Surgical instrument maker and repairer	93	Trader, itinerant	143
Surgical instrument seller	138	Trader, tradesman (unspecified)	142
Survey office employé	166	Traffic inspector (Railway)	108
Surveyor (Railway)	108	Trainer (of race horses)	97
Surveyor (Road)	104	Translator (Government)	151
Surveyor (others)	166	Translator (unspecified)	165
Sweeper	98	Traveller (commercial)	112
Sweeping contractor	98	Treasurer (See Clerk)	—
Sweetmeat maker	67	Trolleyman (Railway)	108
Sweetmeat seller	125	Trumpeter	168
Swine dealer	130	Trunk (leather) maker	38
Swine. Keeper of—	11	Trunk (steel) maker	46
Swineherd	14	Trunk (tin) maker	48
Syce (See Groom)	—	Trustee of charitable institution	97
Syrup (See Sweetmeat)	—	Tumbler (acrobat)	144
T		Turkey (see Poultry)	—
Tailor	72	Tutor	164
Talc worker	54	Twine manufacturer	27
Tallow manufacturer	60	Type founder	48
Tallow seller	118	U	
Tamarind (See Fruit)	—	Umbrella factory (owners, workmen, etc.)	74
Tamarisk cutter	9	Umbrella maker, repairer	74
Tanner	36	Umbrella (palm leaf) maker	42
Tannery (owners, workmen, etc.)	36	Umbrella (of all materials) seller	132
Tape maker	26	Undertaker	145
Tar manufacturer	60	Under trial prisoner (See Prisoner)	—
Tar seller	118	Uniform maker	72
Tarbush maker and presser	71	Upholsterer	79
Tarbush seller	132	Utensil (brass, copper, etc.) maker, repairer	47
Tattooer	77	Utensil (earthen) maker, repairer	57
Tax collector (Municipal)	153	Utensil (glass) maker, repairer	50
Taxidermist	96	Utensil (gold and silver) maker, repairer	94
Tea. Dealer in—	122	Utensil (iron) maker, repairer	46
Teastall keeper	120	Utensil (porcelain) maker, repairer	51
Teacher (all others)	164	Utensil (tin, aluminium) maker, repairer	48
Teacher (of drawing)	167	Utensil (cooking, etc.) seller	134
Teacher (of music and dancing)	168	V	
Teeth (artificial) manufacturer	54	Vaccination inspector, Vaccinator	163
Telegraph and telephone service (All grades)	110	Vagabond, Vagrant	179
Tennis ball, etc. (See Games)	—	Varnish. Dealer in—	118
Tennis court service	97	Varnish manufacturer	60
Tent maker	79		
Tent seller	132		

ALPHABETICAL INDEX OF OCCUPATIONS.—concluded.

Occupation	Group No.	Occupation	Group No.
V			
Vegetable grower	7	Weaver (wool)	29
Vegetable oil manufacturer	58	Weighman	112
Vegetable oil seller	122	Well sinker, excavators.. .. .	81
Vegetable (preserved) preparer	67	Wet nurse	163
Vegetable seller	126	Wheat (see Grain)	—
Vendor (See Trader)	—	Wheel (carriage) maker	85
Veterinary surgeon	162	Wheel (carriage) seller	136
Village headman, servant	155	Wheelwright	85
Vine grower	7	Whip maker	86
Vinegar manufacturer	68	Whistle maker	96
Violin maker	92	Whitewasher	83
Violin player, teacher	168	Wholesale dealer (otherwise unspecified)	142
Violin seller	140	Wicker work maker	42
W			
Waggon unloader	107	Wig maker	76
Waiter (Hotel, etc.)	120	Wine manufacturer	68
Walking stick maker	74	Wine seller	119
Waqf administrators, clerk and rent collector	154	Wine shop service	119
Warder (hospital, lunatic asylum)	163	Wire (copper) drawer	47
Warder (jail)	159	Wire (gold and silver) drawer	94
Warehouse (owners and employés)	112	Wire forger and roller	43
Warrant officer (Army)	146	Witch, wizard	179
Warrant officer (Navy)	148	Wood carver (cabinet work)	78
Washerman	75	Wood cutter	9
Washerwoman	75	Wood sawyer, turner, etc.	41
Waste paper basket. Dealer in—	141	Wood seller	115
Waste paper basket maker	42	Wood seller (for fuel)	137
Watchman (over crops)	5	Wood. Worker in—	41
Watchman of club, bank, etc.	172	Wool carder, knitter, spinner, weaver	29
Watchman of village settlement	150	Wool dyer	34
Watch bag maker	38	Wool, woollen goods. Dealer in—	113
Watch maker, repairer	93	Wreath (artificial) maker	95
Watch seller	138	Wreath (artificial) seller	139
Water bag seller	114	Wrestler	144
Water and aerated waters seller	119	Writer (See Clerk)	—
Water carrier (domestic)	172	Y	
Water carrier (unspecified)	172	Yarn (cotton) beater, reeler, etc.	25
Water works (managers, workmen, etc.)	153	Yarn (cotton and wool) seller	113
Wax cloth manufacturer	60	Yarn (wool) beater, reeler, etc.	29
Wax collector	9	Yeast maker	60
Wax refiner	60	Z	
Wax seller	118	Zifzif diggers and carriers	21
Way inspector (Railway)	108	Zinc. Worker in—	48
Weaver (cotton)	25	Zoological employé	97
Weaver (other fibres)	28		
Weaver (silk)	30		

SUBSIDIARY TABLE No. I.

General distribution of the population by occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	PALESTINE						FOUR MAIN TOWNS*	
				Number per 10,000 of total population		Percentage in each class, sub-class and order of		Percentage of earners occupied		Number per 10,000 supported	Earners only
				Persons supported	Earners	Earners both sexes	Dependants both sexes	In Towns *	Elsewhere		
1	2	3	4	5	6	7	8	9	10	11	12
			PALESTINE	10,000	2,898	29	71	30	70	10,000	3,582
A			PRODUCTION OF RAW MATERIALS	5,446	1,413	26	74	3	97	509	181
	I		EXPLOITATION OF THE SURFACE OF THE EARTH	5,363	1,389	26	74	3	97	440	160
		1	Pasture and agriculture (Total order 1)	5,333	1,381	26	74	3	97	388	146
		(a)	Ordinary cultivation	4,540	1,122	25	75	2	98	192	74
		(b)	Growers of special products and market gardening	531	165	31	69	9	91	172	61
		(c)	Forestry	17	5	27	73	6	94	4	1
		(d)	Raising of farm stock and stud service	239	85	35	65	2	98	16	7
		(e)	Raising of small animals	4	3	60	40	17	83	3	2
		(f)	Agricultural machines service	2	1	44	56	20	80	1	1
		2	Fishing and hunting	30	8	27	73	42	58	52	14
		(a)	Nomads ... ..	...	...	...	...	...	...	...	...
	II		EXTRACTION OF MINERALS	83	24	30	70	21	79	69	21
		3	Mines ... ..	...	...	9	91	...	100	...	...
		4	Quarries of hard rocks	81	23	29	71	22	78	67	20
		5	Salt, etc.	2	1	64	36	13	87	2	1
B			PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	2,899	898	31	69	55	45	5,917	2,008
	III		INDUSTRY	1,378	458	33	67	56	44	2,871	1,049
		6	Textiles	56	19	34	66	33	67	50	26
		7	Hides, skins and hard materials from the animal kingdom	17	5	29	71	32	68	18	6
		8	Wood	151	47	31	69	58	42	340	110
		9	Metals	102	32	31	69	54	46	207	70
		10	Ceramics	31	10	32	68	51	49	52	21
		11	Chemical products properly so called and analogous	27	7	27	73	40	60	38	12
		12	Food industries	187	54	29	71	62	38	423	136
		13	Industries of dress and the toilet	299	115	38	62	64	36	704	298
		14	Furniture industries	15	5	31	69	75	25	45	14
		15	Building industries	384	124	32	68	46	54	675	234
		16	Construction of means of transport	13	4	29	71	58	42	26	9
		17	Production and transmission of physical forces, (heat, light, electricity motive power, etc.)	19	8	43	57	71	29	52	23
		18	Industries of luxury and those pertaining to literature and the arts and sciences	63	23	36	64	85	15	207	79
		19	Industries concerned with refuse matters	12	4	33	67	55	45	28	9
		20	Other industries	2	1	40	60	70	30	6	2
	IV		TRANSPORT	523	167	32	68	55	45	1,085	369
		21	Transport by water	57	19	33	67	88	12	192	66
		22	Transport by road	373	118	32	68	48	52	682	230
		23	Transport by rail	69	21	30	70	54	46	142	46
		24	Post office, telegraph and telephone services	24	9	38	62	74	26	69	27

* Four principal towns : Jaffa, Tel Aviv, Jerusalem and Haifa.

SUBSIDIARY TABLE No. I.

General distribution of the population by occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	PALESTINE						FOUR MAIN TOWNS*	
				Number per 10,000 of total population		Percentage in each class, sub-class and order of		Percentage of earners occupied		Number per 10,000 supported	Earners only
				Persons supported	Earners	Earners both sexes	Dependants both sexes	In Towns *	Elsewhere		
1	2	3	4	5	6	7	8	9	10	11	12
	V		TRADE	998	273	27	73	53	47	1,961	590
		25	Banks, establishments of credit, exchange and insurance ...	31	12	38	62	83	17	99	39
		26	Brokerage, commission and export ...	50	14	29	71	73	27	138	42
		27	Trade in textiles ...	92	20	22	78	41	59	132	34
		28	Trade in skins, leather and furs ...	6	1	23	77	62	38	14	3
		29	Trade in wood ...	4	1	27	73	64	36	9	3
		30	Trade in metals ...	5	1	31	69	80	20	14	4
		31	Trade in pottery ...	5	2	28	72	14	86	6	1
		32	Trade in chemical products ...	15	3	20	80	69	31	44	8
		33	Hotels, cafés, restaurants ...	115	41	36	64	69	31	293	115
		34	Other trade in foodstuffs ...	507	129	25	75	43	57	848	226
		35	Trade in clothing and toilet articles ...	35	10	28	72	68	32	90	29
		36	Trade in furniture ...	9	2	28	72	89	11	31	9
		37	Trade in building materials ...	8	2	25	75	62	38	18	5
		38	Trade in means of transport ...	11	3	24	76	35	65	13	4
		39	Trade in fuel ...	6	2	28	72	58	42	13	4
		40	Trade in articles of luxury and those pertaining to letters and the arts and sciences ...	17	6	33	67	78	22	56	18
		41	Trade in refuse matter ...	3	1	33	67	60	40	10	2
		42	Trade in other sorts ...	79	23	29	71	48	52	133	44
C			PUBLIC ADMINISTRATION AND LIBERAL ARTS	863	283	33	67	61	39	1,924	708
	VI		PUBLIC FORCE	131	63	48	52	51	49	228	131
		43	Army and Air Force ...	32	27	83	16	60	40	69	66
		44	Navy ...	...	...	29	71	75	25	...	...
		45	Police ...	99	36	36	64	45	55	159	65
	VII	46	PUBLIC ADMINISTRATION	121	36	30	70	60	40	267	89
	VIII		PROFESSIONS AND LIBERAL ARTS	366	136	37	63	64	36	899	357
		47	Religion ...	123	33	27	73	67	33	317	92
		48	Law ...	26	7	28	72	70	30	64	20
		49	Medicine ...	55	29	52	48	65	35	144	75
		50	Instruction ...	108	43	40	60	58	42	225	101
		51	Letters and arts and sciences ...	51	23	45	55	73	27	146	68
		52	Other professional occupations ...	3	1	28	72	25	75	3	1
	IX	53	PERSONS LIVING ON THEIR INCOME	245	48	20	80	67	33	530	131
D			MISCELLANEOUS	792	304	38	62	56	44	1,650	685
	X	54	DOMESTIC SERVICE	178	105	59	41	61	39	406	258
	XI	55	INSUFFICIENTLY DESCRIBED OCCUPATIONS	473	177	37	63	58	42	1,042	416
	XII		UNPRODUCTIVE	141	22	16	84	12	88	202	11
		56	Inmates of jails, asylums and hospitals ...	32	11	37	63	1	99	50	...
		57	Beggars, vagrants, prostitutes: Persons supported by charity	109	11	10	90	24	76	151	11
		58	Persons without any occupation ...	...	...	16	84	67	33	1	...

* . Four principal towns : Jaffa, Tel Aviv, Jerusalem and Haifa.

SUBSIDIARY TABLE No. II.

Number per 10,000 of population supported by each order of occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	Palestine	Southern District	Jerusalem District	Northern District	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9	10	11
			TOTAL	10,000	10,000	10,000	10,000	10,000	10,000	10,000
A			PRODUCTION OF RAW MATERIALS	5,446	4,951	4,675	6,304	6,842	1,593	1,948
	I		EXPLOITATION OF THE SURFACE OF THE EARTH	5,363	4,918	4,567	6,201	6,755	1,546	1,836
		1	PASTURE AND AGRICULTURE	5,333	4,865	4,565	6,170	6,717	1,542	1,818
		(a)	Ordinary cultivation	4,540	3,976	4,086	5,249	5,865	814	1,358
		(b)	Growers of special products and market gardening	531	821	371	415	506	686	412
		(c)	Forestry	17	3	10	32	22	4	4
		(d)	Raising of farm stock and stud service	239	56	95	467	320	18	42
		(e)	Raising of small animals	4	6	3	4	3	12	2
		(f)	Agricultural machines services	2	3	...	3	1	8	...
		2	FISHING AND HUNTING	30	53	2	31	38	4	18
		(a)	*Nomads ... ..	...	...	...	...	...	...	...
	II		EXTRACTION OF MINERALS	83	33	108	103	87	47	112
		3	Mines ... ..	...	...	...	...	...	...	...
		4	Quarries of hard rocks	81	32	104	102	87	37	111
		5	Salt, etc.	2	1	4	1	...	10	1
B			PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	2,899	3,518	3,051	2,342	2,206	5,038	4,267
	III		INDUSTRY	1,378	1,585	1,664	1,046	887	2,844	2,409
		6	Textiles	56	119	12	37	60	85	13
		7	Hides, skins and hard materials from the animal kingdom	17	20	32	4	12	15	54
		8	Wood	151	203	153	111	92	298	329
		9	Metals	102	110	107	94	69	168	230
		10	Ceramics	31	47	50	7	15	54	116
		11	Chemical products properly so called and analogous	27	39	14	26	23	31	53
		12	Food industries	187	203	185	176	155	321	195
		13	Industries of dress and the toilet	299	342	345	238	163	712	560
		14	Furniture industries	15	23	17	9	5	58	10
		15	Building industries	384	335	602	284	256	759	665
		16	Construction of means of transport	13	16	13	11	10	12	39
		17	Production and transmission of physical forces (heat, light, electricity motive power, etc.)	19	21	18	18	4	77	15
		18	Industries of luxury and those pertaining to literature and the arts and sciences	63	92	91	24	7	259	122
		19	Industries concerned with refuse matter	12	12	22	7	14	10	7
		20	Other industries	2	3	3	...	2	5	1
	IV		TRANSPORT	523	653	351	534	501	552	663
		21	Transport by water	57	103	3	57	70	13	49
		22	Transport by road	373	458	299	356	356	441	394
		23	Transport by rail	69	71	14	102	66	44	139
		24	Post office, telegraph and telephone services	24	21	35	19	9	54	81

*If the nomadic population be included in Order 1 (Pasture and agriculture) the number per 10,000 in this Order is 5,634 for Palestine, and 7,004 for the Moslems with corresponding reductions in the other Orders.

DISTRIBUTION OF POPULATION BY SUB-CLASSES OF OCCUPATIONS

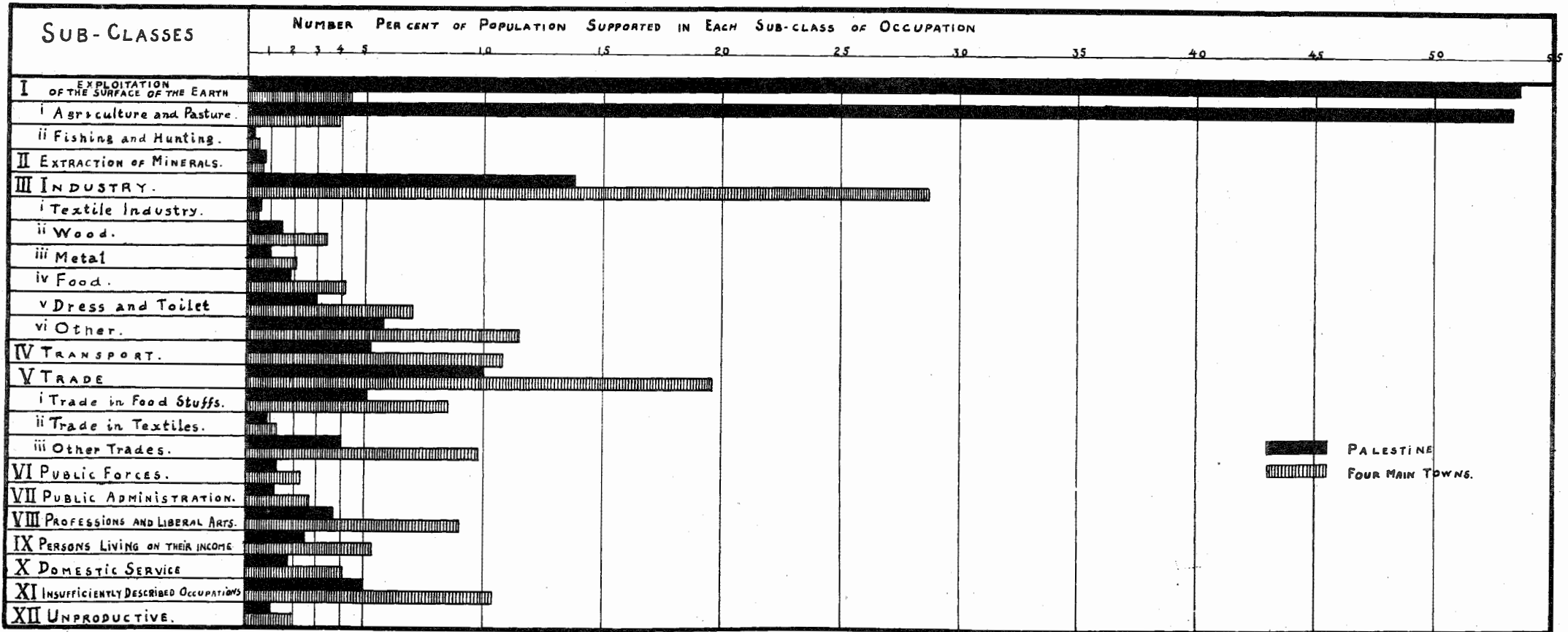


DIAGRAM No. 42

SUBSIDIARY TABLE No. II.

Number per 10,000 of population supported by each order of occupation.

CLASS.	SUB-CLASS	ORDER	OCCUPATION	Palestine	Southern District	Jerusalem District	Northern District	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9	10	11
	V		TRADE	998	1,280	1,036	762	818	1,642	1,199
		25	Banks, establishments of credit, exchange and insurance	31	43	42	14	4	112	81
		26	Brokerage, commission and export	50	77	47	31	28	123	80
		27	Trade in textiles	92	96	105	82	76	161	92
		28	Trade in skins, leather and furs	6	6	9	4	3	15	8
		29	Trade in wood	4	6	2	3	3	8	5
		30	Trade in metals	5	6	5	3	1	17	7
		31	Trade in pottery	5	12	3	2	7	2	2
		32	Trade in chemical products	15	24	14	9	12	25	19
		33	Hotels, cafés, restaurants	115	138	127	89	83	184	231
		34	Other trade in foodstuffs	507	676	477	399	488	630	457
		35	Trade in clothing and toilet articles	35	36	47	28	19	85	68
		36	Trade in furniture	9	10	14	5	2	34	9
		37	Trade in building materials	8	9	11	5	2	26	15
		38	Trade in means of transport	11	16	9	8	11	5	20
		39	Trade in fuel	6	6	5	7	5	9	2
		40	Trade in articles of luxury and those pertaining to letters and the arts and sciences	17	22	30	6	4	63	36
		41	Trade in refuse matter	3	8	2	1	1	13	...
		42	Trade in other sorts	79	89	87	66	69	130	63
C.			PUBLIC ADMINISTRATION AND LIBERAL ARTS	863	782	1,345	623	441	1,684	2,558
	VI		PUBLIC FORCE	131	107	143	142	96	71	518
		43	Army and Air Force	32	22	33	40	7	1	285
		44	Navy ... ..	...	...	...	...	...	...	...
		45	Police	99	85	110	102	89	70	233
	VII	46	PUBLIC ADMINISTRATION	121	125	144	104	89	124	366
	VIII		PROFESSIONS AND LIBERAL ARTS	366	342	615	228	146	1,000	844
		47	Religion	123	64	303	53	46	314	348
		48	Law	26	31	30	20	22	41	29
		49	Medicine	55	67	64	40	13	174	144
		50	Instruction	108	106	156	80	47	298	219
		51	Letters and arts and sciences	51	71	59	32	16	168	101
		52	Other professional occupations	3	3	3	3	2	5	3
	IX	53	PERSONS LIVING ON THEIR INCOME	245	208	443	149	110	489	830
D.			MISCELLANEOUS	792	749	929	731	511	1,685	1,227
	X	54	DOMESTIC SERVICE	178	158	267	136	117	302	411
	XI	55	INSUFFICIENTLY DESCRIBED OCCUPATIONS	473	496	437	472	279	1,139	659
	XII		UNPRODUCTIVE	141	95	225	123	115	244	157
		56	Inmates of jails, asylums and hospitals	32	3	56	38	28	55	20
		57	Beggars, vagrants, prostitutes. Persons supported by charity	109	91	169	85	87	189	136
		58	Persons without any occupation ... ..	...	1	...	...	...	...	1

SUBSIDIARY TABLE No. III.

Distribution of agricultural, industrial, commercial and professional occupations by locality and by main religions.

DISTRICT SUB-DISTRICT AND RELIGION	AGRICULTURE				INDUSTRY				COMMERCE				PROFESSIONS				OTHERS			
	Population supported by agriculture	Proportion of agricultural population per 1,000 of each district, sub-district and religion	Percentage on agricultural population of		Population supported by industry	Proportion of industrial population per 1,000 of each district, sub-district and religion	Percentage on industrial population of		Population supported by commerce	Proportion of commercial population per 1,000 of each district sub-district and religion	Percentage on commercial population of		Population supported by professions	Proportion of professional population per 1,000 of each district sub-district and religion	Percentage on professional population of		Population supported by other occupations	Proportion of this population per 1,000 of each district, sub-district and religion	Percentage on this population of	
			Earners	Dependants			Earners	Dependants			Earners	Dependants			Earners	Dependants			Earners	Dependants
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PALESTINE	491,753	507	25	75	141,611	146	33	67	147,217	152	29	71	35,481	37	37	63	153,206	158	35	65
SOUTHERN DISTRICT ...	146,191	480	27	73	49,266	162	35	65	58,807	193	30	70	10,439	34	42	58	39,829	131	38	62
Gaza Sub-district ...	67,708	720	24	76	8,483	90	27	73	10,579	112	24	76	1,475	16	30	70	5,859	62	24	76
Beersheba Sub-district	394	127	24	76	564	182	27	73	921	297	21	79	182	59	29	71	1,040	335	27	73
Jaffa Sub-district ...	36,063	257	33	67	33,280	237	37	63	36,510	260	32	68	7,365	52	45	55	27,316	194	40	60
Ramle Sub-district ...	42,026	629	26	74	6,939	104	32	68	10,797	162	29	71	1,417	21	38	62	5,614	84	45	55
JERUSALEM DISTRICT ...	114,776	446	23	77	45,632	177	33	67	35,737	139	28	72	15,829	61	34	66	45,516	177	31	69
Hebron Sub-district ...	48,053	732	21	79	4,598	70	28	72	5,984	91	21	79	885	14	25	75	6,110	93	26	74
Bethlehem Sub-district	4,481	267	24	76	4,765	284	26	74	1,739	104	25	75	685	41	35	65	5,111	304	17	83
Jerusalem Sub-district	27,335	206	24	76	34,436	260	34	66	26,576	200	29	71	13,753	104	35	65	30,561	230	35	65
Jericho Sub-district ...	1,827	544	32	68	271	81	79	21	233	69	52	48	46	14	76	24	979	292	58	42
Ramallah Sub-district..	33,080	847	25	75	1,562	40	30	70	1,205	31	30	70	460	12	39	61	2,755	70	23	77
NORTHERN DISTRICT ...	230,786	567	25	75	46,713	115	32	68	52,673	129	29	71	9,213	23	37	63	67,861	166	36	64
Tulkarm Sub-district .	35,288	762	24	76	2,312	50	29	71	4,601	99	24	76	638	14	34	66	3,489	75	40	60
Nablus Sub-district ...	46,201	674	24	76	7,141	104	23	77	8,134	119	24	76	1,205	18	26	74	5,809	85	31	69
Jenin Sub-district ...	31,258	755	26	74	1,607	39	29	71	3,999	97	26	74	558	13	29	71	3,989	96	31	69
Nazareth Sub-district	13,908	486	27	73	3,274	115	27	73	2,748	96	29	71	918	32	31	69	7,744	271	32	68
Beisan Sub-district ...	9,645	638	33	67	1,050	69	47	53	1,105	73	36	64	199	13	55	45	3,124	207	42	58
Tiberias Sub-district...	13,754	510	27	73	3,385	125	31	69	4,311	160	27	73	789	29	40	60	4,736	176	34	66
Haifa Sub-district ...	26,989	283	26	74	19,540	205	37	63	19,832	208	33	67	3,246	34	44	56	25,865	270	39	61
Acre Sub-district ...	29,830	661	27	73	3,714	82	32	68	4,553	101	28	72	798	18	34	66	6,247	138	38	62
Safad Sub-district ...	23,913	602	22	78	4,690	118	27	73	3,390	85	25	75	862	22	36	64	6,858	173	30	70
MOSLEMS	441,621	637	24	76	67,548	97	30	70	91,415	132	28	72	10,140	15	28	72	82,435	119	33	67
JEWS	26,339	151	46	54	50,441	289	39	61	38,294	219	32	68	17,490	100	43	57	42,046	241	37	63
CHRISTIANS	16,176	177	26	74	23,043	252	30	70	17,007	186	30	70	7,681	84	37	63	27,491	301	37	63

Notes:—Agriculture for this table does not include Forestry, Raising of farm stock, Raising of small animals, Fishing and Hunting.

Industry consists of sub-classes II and III.
Co erce " " " " IV and V.

Profession consists of sub-classes VIII.
The balance is thrown into "Others"

SUBSIDIARY TABLE No. IV.

Number per 10,000 earners whose main occupation is not agriculture but who have a subsidiary agricultural occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	Palestine	Southern District	Jerusalem District	Northern District	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9	10	11
			ALL CLASSES	271	189	297	336	457	68	136
*A			PRODUCTION OF RAW MATERIALS	927	479	2,016	934	1,128	407	999
	*I		EXPLOITATION OF THE SURFACE OF THE EARTH	960	490	2,137	1,021	1,167	420	1,168
		* 1	Pasture and agriculture (Total order 1)	981	500	2,144	1,049	1,209	422	1,216
		(a)	Ordinary cultivation	232	86	...	543	191	157	...
		(b)	Growers of special products and market gardening	1,334	547	2,936	2,019	1,802	458	1,343
		(c)	Forestry	530	1,072	1,212	361	590	...	...
		(d)	Raising of farm stock and stud service	400	178	495	414	398	...	650
		(e)	Raising of small animals	193	...	...	431	173	227	...
		(f)	Agricultural machines service ... ..	...	...	...	...	...	...	...
		2	Fishing and hunting	177	254	...	87	194	...	...
		(a)	Nomads ... ..	...	...	...	...	...	...	...
	II		EXTRACTION OF MINERALS	565	101	1,459	125	713	242	163
		3	Mines ... ..	...	...	...	...	...	...	...
		4	Quarries of hard rocks	559	107	1,532	127	717	34	165
		5	Salt, etc.	672	...	938	...	...	769	...
B			PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	157	156	144	169	263	28	100
	III		INDUSTRY	115	91	150	108	210	37	75
		6	Textiles	114	108	94	114	162	17	159
		7	Hides, skins and hard materials from the animal kingdom	130	111	81	500	152	100	118
		8	Wood	137	136	67	196	197	69	153
		9	Metals	46	39	12	76	49	41	47
		10	Ceramics	105	101	79	239	141	98	75
		11	Chemical products properly so called and analogous	226	236	99	257	345	...	236
		12	Food industries	123	122	98	138	153	52	147
		13	Industries of dress and the toilet	71	85	44	81	162	16	53
		14	Furniture industries ... ..	...	...	...	...	...	...	...
		15	Building industries	187	87	332	85	361	53	45
		16	Construction of means of transport	54	73	83	...	56	...	85
		17	Production and transmission of physical forces (heat, light, electricity motive power, etc.)	52	38	...	97	...	67	...
		18	Industries of luxury and those pertaining to literature and the arts and sciences	14	9	13	33	118	...	28
		19	Industries concerned with refuse matter ... ..	...	...	...	...	...	...	...
		20	Other industries	124	200	...	...	303	...	...
	IV		TRANSPORT	179	190	172	172	251	15	58
		21	Transport by water	22	31	...	13	27	...	...
		22	Transport by road	222	222	200	233	305	20	93
		23	Transport by rail	145	260	180	86	206	...	24
		24	Post office, telegraph and telephone services	23	40	...	35	107	...	...
	V		TRADE	214	234	123	265	340	14	183
		25	Banks, establishments of credit, exchange and insurance	18	19	...	45	132	...	42
		26	Brokerage, commission and export	101	86	30	201	214	14	141
		27	Trade in textiles	327	141	222	572	531	14	425
		28	Trade in skins, leather and furs ... ..	...	...	...	...	...	...	...
		29	Trade in wood ... ..	...	...	...	...	...	...	...
		30	Trade in metals ... ..	...	...	...	...	...	...	...
		31	Trade in pottery	70	132	...	...	76	...	...
		32	Trade in chemical products	35	...	...	99	...	...	213
		33	Hotels, cafés, restaurants	42	42	44	40	68	...	44
		34	Other trade in foodstuffs	327	398	183	342	436	29	321
		35	Trade in clothing and toilet articles	62	28	33	133	112	...	...
		36	Trade in furniture ... ..	...	...	...	...	...	...	...
		37	Trade in building materials	266	132	500	192	588	...	1,035
		38	Trade in means of transport	400	176	517	617	568	...	...
		39	Trade in fuel	63	...	278	...	...	...	1,111
		40	Trade in articles of luxury and those pertaining to letters and the arts and sciences	37	...	43	122	116	27	...
		41	Trade in refuse matter	190	124	...	1,667	556	...	...
		42	Trade in other sorts	148	202	63	158	226	...	123

*In calculating the proportions in Class A, Sub-class I, Order 1 and Order 1 (a), the totals of earners engaged in ordinary cultivation, as rent receivers, ordinary cultivators and agricultural labourers, that is, earners in Groups 1, 2 and 5 respectively, have been omitted.

SUBSIDIARY TABLE No. IV.

Number per 10,000 earners whose main occupation is not agriculture but who have a subsidiary agricultural occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	Palestine	Southern District	Jerusalem District	Northern District	Moslems	Jews	Christians	
1	2	3	4	5	6	7	8	9	10	11	
C	VI		PUBLIC ADMINISTRATION AND LIBERAL ARTS	138	100	92	228	360	20	72	
			PUBLIC FORCE	74	72	41	98	189	39	9	
		43	Army and Air Force	8	19	...	8	87	...	...
		44	Navy ... ..	...	...	...	...	...	...	...
		45	Police	124	104	69	180	202	40	28	
	VII	46	PUBLIC ADMINISTRATION	150	179	72	193	292	...	54	
	VIII		PROFESSIONS AND LIBERAL ARTS	109	80	72	205	322	16	123	
			47	Religion	134	122	79	365	396	13	132
			48	Law	315	278	287	396	615	...	263
			49	Medicine	58	37	36	105	246	...	90
			50	Instruction	115	57	76	235	350	26	111
			51	Letters and arts and sciences	54	70	16	69	77	21	152
		52	Other professional occupations	260	345	...	244	357	270	...	
IX	53	PERSONS LIVING ON THEIR INCOME	294	119	243	571	673	35	166		
D		MISCELLANEOUS	97	51	74	150	172	29	68		
	X	54	DOMESTIC SERVICE	69	82	62	65	118	29	38	
	XI	55	INSUFFICIENTLY DESCRIBED OCCUPATIONS	116	37	93	215	243	30	105	
	XII		UNPRODUCTIVE	14	25	24	8	18	...	...
			56	Inmates of jails, asylums and hospitals
		57	Beggars, vagrants, prostitutes. Persons supported by charity	29	26	35	26	29	...	...
	58	Persons without any occupation ... ..	...	...	...	...	...	...	...

SUBSIDIARY TABLE No. V.

Occupations combined with agriculture where agricultural occupations are principal.—Earners only.

DISTRICT AND RELIGION	NUMBER PER 10,000 EARNERS WHO RETURNED A SUBSIDIARY OCCUPATION								
	INCOME FROM RENT OF AGRICULTURAL LAND			ORDINARY CULTIVATORS			FARM SERVANTS AND FIELD LABOURERS, AND WATCHERS		
	Total	With agriculture as subsidiary	With non-agriculture as subsidiary	Total	With agriculture as subsidiary	With non-agriculture as subsidiary	Total	With agriculture as subsidiary	With non-agriculture as subsidiary
1	2	3	4	5	6	7	8	9	10
PALESTINE	3,702	456	3,246	3,116	201	2,915	702	108	594
Southern District	3,530	338	3,192	2,312	142	2,170	690	104	586
Jerusalem District	4,043	421	3,622	5,071	285	4,786	1,109	215	894
Northern District	3,574	541	3,033	2,374	183	2,191	643	92	551
Moslems	3,728	478	3,250	3,154	204	2,950	660	108	552
Jews	2,000	1,000	1,000	1,207	215	992	1,050	97	953
Christians	3,475	42	3,433	4,499	152	4,347	1,348	196	1,152

SUBSIDIARY TABLE No. VI.—Part (i).

Number of female earners per 10,000 persons supported in each category of occupation.

CLASS	SUB-CLASS	ORDER	OCCUPATION	Palestine	Southern District	Jerusalem District	Northern District	Moslems	Jews	Christians	Jaffa Town	Tel Aviv Town	Jerusalem Town	Haifa Town
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			ALL CLASSES	351	364	374	327	198	859	546	324	1,051	684	514
A			PRODUCTION OF RAW MATERIALS	220	182	163	269	178	869	318	116	1,061	404	155
	I		EXPLOITATION OF THE SURFACE OF THE EARTH	223	184	166	273	181	894	336	123	1,087	486	228
		1	Pasture and agriculture (Total Order 1) .	224	186	166	274	181	896	339	143	1,099	496	289
		(a)	Ordinary cultivation	216	161	152	278	180	1,191	322	126	1,274	599	294
		(b)	Growers of special products and market gardening	308	291	263	358	203	574	380	156	803	538	305
		(c)	Forestry	156	366	74	159	157	141	...	...	...	...	238
		(d)	Raising of farm stock and stud service	139	76	241	131	135	193	389	...	227	113	111
		(e)	Raising of small animals	4,047	2,727	5,303	4,972	4,021	4,174	2,381	909	3,721	...	1,429
		(f)	Agricultural machines service ... ..	...	...	...	...	...	...	...	...	...	...	...
		2	Fishing and hunting	17	...	227	32	11	...	118	...	...	...	26
		(a)	Nomads ... ..	...	...	...	...	...	...	...	...	...	...	...
	II		EXTRACTION OF MINERALS	22	20	32	17	20	49	20	...	345	...	31
		3	Mines ... ..	...	...	...	...	...	...	...	...	...	...	...
		4	Quarries of hard rocks	22	21	30	17	20	46	20	...	588	...	31
		5	Salt, etc.	48	...	87	...	...	59	...	...	250	...	...
B			PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	289	326	353	195	112	586	314	193	789	434	267
	III		INDUSTRY	438	531	463	307	170	769	434	369	1,036	633	413
		6	Textiles	849	906	1,438	585	267	2,661	3,577	1,235	3,099	1,616	909
		7	Hides, skins and hard materials from the animal kingdom	464	211	726	66	154	588	935	188	615	333	625
		8	Wood	40	45	28	44	41	44	33	9	69	34	43
		9	Metals	60	111	47	24	25	85	100	210	134	58	36
		10	Ceramics	354	306	401	385	215	564	302	...	759	273	413
		11	Chemical products properly so called and analogous	227	116	140	385	13	771	290	62	690	238	558
		12	Food industries	193	268	174	141	74	434	157	130	848	204	240
		13	Industries of dress and the toilet	1,471	1,633	1,796	999	637	226	1,393	1,232	2,556	1,996	1,601
		14	Furniture industries	149	186	139	84	213	129	112	...	274	77	...
		15	Building industries	31	29	28	38	28	45	12	25	43	32	34
		16	Construction of means of transport	32	...	88	22	28	49	28	...	...	87	...
		17	Production and transmission of physical forces (heat, light, electricity motive power, etc.)	88	126	65	70	...	111	71	...	162	77	28
		18	Industries of luxury and those pertaining to literature and the arts and sciences	394	587	265	152	44	445	323	531	692	249	286
		19	Industries concerned with refuse matter	8	...	18	...	...	...	161	...	...	22	...
		20	Other industries	732	1,389	...	...	...	1,765	...	...	...	...	...
	IV		TRANSPORT	50	39	93	41	19	128	99	24	136	123	62
		21	Transport by water	34	29	238	35	14	398	67	7	983	351	31
		22	Transport by road	29	25	48	23	18	60	42	21	54	58	11
		23	Transport by rail	45	14	29	63	31	104	55	...	...	...	78
		24	Post office, telegraph and telephone services	420	493	483	286	32	639	471	442	841	545	460

SUBSIDIARY TABLE No. VI.—Part (ii).

Number of female earners per cent. of earners of both sexes in each class, sub-class, order and in certain agricultural groups of occupations.

CLASS	SUB-CLASS	ORDER	GROUP	OCCUPATION	All religions	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9
				TOTAL ALL CLASSES	12	8	22	17
A				PRODUCTION OF RAW MATERIALS	8	7	19	12
	I			EXPLOITATION OF THE SURFACE OF THE EARTH	9	7	20	13
		1		Pasture and agriculture (Total Order 1)	9	7	20	13
		(a)		Ordinary cultivation	9	8	25	13
			1	Income from rent of agricultural land	29	28	20	35
			2	Ordinary cultivators	7	5	29	10
			3	Agents, managers of estates, clerks, rent collectors, etc.	5	...	7	...
			4	Agricultural instructors not in educational institutions	43	...	50	...
			5	Farm servants and field labourers and watchers	10	9	21	18
		(b)		Growers of special products and market gardening	10	8	13	14
			6	Orange growers	6	4	8	11
			7	Fruit, flower, vegetable, vine, etc., growers and pickers. Floriculturists and nurserymen	11	8	15	15
		(c)		Forestry	6	6	4	...
			8	Forest officers, rangers, guards, etc.	7	8	8	...
			9	Woodcutters, firewood collectors and charcoal burners	6	6	...	...
		(d)		Raising of farm stock and stud service	4	4	6	12
			10	Cattle and buffalo breeders and keepers	12	13	6	10
			11	Sheep, goat and pig breeders	9	9	11	19
			12	Breeders and trainers of other animals (horses, mules, camels, donkeys, etc.)	5	5	...	...
			13	Advisers in stock raising and dairy production, and poultry breeders ... ..	...	...	...	...
			14	Herdsmen, shepherds, goatherds, etc. ... ..	...	...	4	5
		(e)		Raising of small animals	67	66	69	56
			15	Breeders of birds, bees, silk worms, and poultry farmers, rearers and sellers of leeches	67	66	69	56
		2		Fishing and hunting	1	...	...	4
		(a)		Nomads ... ..	...	...	...	...
	II			EXTRACTION OF MINERALS	1	1	1	1
		3		Mines ... ..	...	...	...	...
		4		Quarries of hard rocks	1	1	1	1
		5		Salt, etc.	1	...	1	...
B				PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	9	4	16	10
	III			INDUSTRY	13	6	20	14
		6		Textiles	25	9	51	70
		7		Hides, skins and hard materials from the animal kingdom	16	7	15	27
		8		Wood	1	1	1	1
		9		Metals	2	1	3	3
		10		Ceramics	11	8	13	12
		11		Chemical products properly so called and analogous	8	1	21	11
		12		Food industries	7	3	14	6
		13		Industries of dress and the toilet	38	19	52	38
		14		Furniture industries	5	7	4	3
		15		Building industries	1	1	1	...
		16		Construction of means of transport	1	1	1	1
		17		Production and transmission of physical forces (heat, light, electricity motive power etc.)	2	...	3	2
		18		Industries of luxury and those pertaining to literature and the arts and sciences	11	1	12	10
		19		Industries concerned with refuse matter ... ..	...	...	...	6
		20		Other industries	19	...	35	...

SUBSIDIARY TABLE No. VI.—Part (ii).

Number of female earners per cent. of earners of both sexes in each class, sub-class, order and in certain agricultural groups of occupations.

CLASS	SUB-CLASS	ORDER	GROUP	OCCUPATION	All religions	Moslems	Jews	Christians
1	2	3	4	5	6	7	8	9
	IV			TRANSPORT	2	1	4	3
		21		Transport by water	1	...	8	2
		22		Transport by road	1	1	2	1
		23		Transport by rail	1	1	3	2
		24		Post, office, telegraph and telephone services	11	1	15	12
	V			TRADE	8	4	14	7
		25		Banks, establishments of credit, exchange and insurance	13	13	13	10
		26		Brokerage, commission and export	3	2	4	3
		27		Trade in textiles	4	2	5	8
		28		Trade in skins, leather and furs	4	...	8	...
		29		Trade in wood	2	5	...	...
		30		Trade in metals	2	...	2	6
		31		Trade in pottery	12	10	20	60
		32		Trade in chemical products	6	2	9	4
		33		Hotels, cafés, restaurants	13	1	33	12
		34		Other trade in foodstuffs	7	6	13	5
		35		Trade in clothing and toilet articles	6	2	10	3
		36		Trade in furniture	4	2	5	...
		37		Trade in building materials	2	3	2	3
		38		Trade in means of transport	1	1	4	2
		39		Trade in fuel	7	8	7	...
		40		Trade in articles of luxury and those pertaining to letters and the arts and sciences	11	1	12	14
		41		Trade in refuse matter	9	14	8	...
		42		Trade in other sorts	5	2	12	3
C				PUBLIC ADMINISTRATION AND LIBERAL ARTS	22	14	31	17
	VI			PUBLIC FORCE ... ..	...	1	1	...
		43		Army and Air Force ... ..	...	...	...	...
		44		Navy ... ..	...	...	...	...
		45		Police	1	1	1	1
	VII	46		PUBLIC ADMINISTRATION	4	1	12	4
	VIII			PROFESSIONS AND LIBERAL ARTS	30	17	34	32
		47		Religion	6	2	3	13
		48		Law	4	...	10	...
		49		Medicine	64	72	65	55
		50		Instruction	38	10	44	49
		51		Letters and arts and sciences	16	12	19	10
		52		Other professional occupations	90	96	81	100
	IX	53		PERSONS LIVING ON THEIR INCOME	38	39	35	44
D				MISCELLANEOUS	28	18	35	41
	X	54		DOMESTIC SERVICE	61	39	83	71
	XI	55		INSUFFICIENTLY DESCRIBED OCCUPATIONS	9	4	15	5
	XII			UNPRODUCTIVE	22	21	18	40
		56		Inmates of jails, asylums and hospitals	1	1	...	...
		57		Beggars, vagrants, prostitutes. Persons supported by charity	44	42	50	75
		58		Persons without any occupation ... ..	...	...	...	...

SUBIDIARY TABLE No. VII.

Distribution of 10,000 working dependants of both sexes by classes and sub-classes of occupations, and other details.

CLASS	SUB-CLASS	OCCUPATION	Palestine	Moslems	Jews	Christians	Proportion per cent. of males working dependants under 17 years of age to total males working dependants				Proportion per cent. of females working dependants otherwise than married to total females working dependants			
							Palestine	Moslems	Jews	Christians	Palestine	Moslems	Jews	Christians
							8	9	10	11	12	13	14	15
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		ALL CLASSES	10,000	10,000	10,000	10,000	39	42	19	33	13	12	12	26
A		PRODUCTION OF RAW MATERIALS	759	807	560	551	41	42	18	42	49	57	19	50
	I	Exploitation of the surface of the earth	756	804	560	551	41	42	18	42	49	57	19	50
	II	Extraction of minerals	3	3	...	...	69	69	...	...	29	29	...	...
B		PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	226	164	422	628	40	44	24	45	47	44	39	70
	III	Industry	149	91	343	497	48	59	24	46	47	40	42	70
	IV	Transport	28	30	11	47	12	11	17	18	64	70	...	44
	V	Trade	49	43	68	84	45	48	30	56	46	48	26	83
C		PUBLIC ADMINISTRATION AND LIBERAL ARTS	8,860	8,872	8,852	8,723	32	63	16	15	11	10	10	23
	VI	Public force	1	1	2	7	20	...	50	...	20	33	...	...
	VII	Public administration	5	5	2	7	48	60	...	...	46	45	...	...
	VIII	Professions and liberal arts	8,762	8,810	8,681	8,270	22	29	16	6	11	10	10	21
	XI	Persons living on their income	92	56	167	439	45	72	14	26	56	46	53	78
D		MISCELLANEOUS	155	157	166	98	14	13	17	7	22	17	53	67
	X	Domestic service	114	131	47	44	19	30	...	...	16	13	48	63
	XI	Insufficiently described occupations	25	16	77	21	13	10	18	14	64	65	66	50
	XII	Unproductive	16	10	42	33	16	18	17	...	65	76	38	78

SUBSIDIARY TABLE No. VIII.

Number in each main religion per 1,000 of population supported by each class and sub-class of occupation.

CLASS	SUB-CLASS	OCCUPATION	MOSLEMS	JEWS	CHRISTIANS	OTHERS
1	2	3	4	5	6	7
A		PRODUCTION OF RAW MATERIALS	898	53	34	15
	I.	Exploitation of the surface of the earth	901	52	32	15
	II.	Extraction of minerals	756	102	128	14
B		PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	545	313	139	3
	III.	Industry	460	371	165	4
	IV.	Transport	686	190	120	4
	V.	Trade	587	297	113	3
C		PUBLIC ADMINISTRATION AND LIBERAL ARTS ...	365	352	279	4
	VI.	Public force	525	98	372	5
	VII.	Public administration	527	185	285	3
	VIII.	Professions and liberal arts	286	493	216	5
	IX.	Persons living on their income	319	359	319	3
D		MISCELLANEOUS	461	383	146	10
	X.	Domestic service	470	305	218	7
	XI.	Insufficiently described occupations	422	434	131	13
	XII.	Unproductive	581	311	104	4

SUBSIDIARY TABLE No. IX.

Number of persons in each class of organized industry per 10,000 employed in organized industry.

INDUSTRY										Persons	Males	Females
1										2	3	4
ALL INDUSTRIES	...	...	...	...	...	...	...	...	...	10,000	10,000	10,000
I. Quarries and hard rocks	...	...	...	...	...	...	...	...	...	97	106	14
II. Salt and extraction of bitumen from Dead Sea	...	...	...	...	...	...	...	...	...	703	775	58
III. Textile industries	...	...	...	...	...	...	...	...	...	1,156	955	2,962
IV. Leather industries	...	...	...	...	...	...	...	...	...	20	21	14
V. Wood industries	...	...	...	...	...	...	...	...	...	69	76	14
VI. Metal industries	...	...	...	...	...	...	...	...	...	386	416	115
VII. Ceramics (brick and tile manufacture)	...	...	...	...	...	...	...	...	...	318	291	564
VIII. Chemical industries	...	...	...	...	...	...	...	...	...	683	667	824
IX. Food, drink and tobacco	...	...	...	...	...	...	...	...	...	2,014	1,925	2,818
X. Industries of dress and the toilet	...	...	...	...	...	...	...	...	...	116	84	405
XI. Furniture industries	...	...	...	...	...	...	...	...	...	147	159	43
XII. Industries connected with building	...	...	...	...	...	...	...	...	...	599	650	145
XIII. Construction of means of transport	...	...	...	...	...	...	...	...	...	1,323	1,443	217
XIV. Railway construction (Railway workshop)	...	...	...	...	...	...	...	...	...	440	479	87
XV. Printing and stationery	...	...	...	...	...	...	...	...	...	974	941	1,272
XVI. Production and transmission of physical forces (Electrical power stations, ice factories, etc.)	...	...	...	...	...	...	...	...	...	955	1,012	448

SUBSIDIARY TABLE No. X.

Distribution by function and status of 10,000 persons employed in each class of organized industry.

INDUSTRY	NUMBER OF PERSONS EMPLOYED											Number of females per 1,000 males	Number of children employed per 1,000 adults
	TOTAL			Direction, supervision and clerical work				Operatives					
	Persons	Males	Females	Foreigners		Palestinians		Adults		Children			
				Males	Females	Males	Females	Males	Females	Males	Females		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
ALL INDUSTRIES	10,000	8,998	1,002	451	48	1,119	100	7,129	783	299	71	111	38
I. Quarries and hard rocks	10,000	9,851	149	746	149	1,791	...	7,015	...	299	...	15	31
II. Salt and extraction of bitumen from Dead Sea	10,000	9,918	82	412	20	1,008	...	8,498	62	...	...	8	...
III. Textile industries	10,000	7,434	2,566	50	38	350	138	6,784	2,265	250	125	345	39
IV. Leather industries	10,000	9,286	714	1,429	...	714	...	5,714	714	1,429	...	77	167
V. Wood industries	10,000	9,792	208	1,042	...	2,084	...	6,458	208	208	...	21	21
VI. Metal industries	10,000	9,701	299	562	37	899	112	7,940	75	300	75	31	39
VII. Ceramics (brick and tile manufacture)	10,000	8,227	1,773	409	91	455	45	7,136	1,546	227	91	215	33
VIII. Chemical industries	10,000	8,792	1,208	445	64	1,483	106	6,631	1,017	233	21	137	26
IX. Food, drink and tobacco	10,000	8,598	1,402	445	29	1,228	65	6,135	1,128	790	180	163	107
X. Industries of dress and the toilet	10,000	6,500	3,500	1,000	375	1,875	500	3,625	2,625	...	...	538	...
XI. Furniture industries	10,000	9,706	294	294	...	392	98	8,726	196	294	...	30	30
XII. Industries connected with building	10,000	9,759	241	580	24	870	24	8,309	193	...	...	25	...
XIII. Construction of means of transport	10,000	9,835	165	340	55	581	77	8,717	33	197	...	17	20
XIV. Railway construction (Railway workshop)	10,000	9,803	197	1,020	...	1,053	98	7,730	99	...	...	20	...
XV. Printing and stationery	10,000	8,692	1,308	371	45	1,620	89	6,344	1,040	357	134	150	52
XVI. Production and transmission of physical forces (Electrical power stations, ice factories, etc.)	10,000	9,530	470	712	91	2,258	273	6,515	106	45	...	49	5

CHAPTER XII.—NOMADS.

General.

286. The only true nomads in Palestine today are the Bedu inhabitants of the Beersheba sub-district. It has already been explained that these people were reluctant, for reasons common to most primitive people, to co-operate in the taking of the census. To have attempted to enforce the census among them would have met, almost certainly, either stubborn resistance or a temporary disappearance of a proportion of the population into Trans-Jordan, or Sinai, or to parts of the desert to the south east of Beersheba inaccessible to census officers. Information in respect of these people was, therefore, recorded on collective schedules. Semi-settled people dwelling in other sub-districts of the Southern district followed the example of the nomads of Beersheba and, in their respect, also, a special collective schedule was used for recording the elementary details sought in respect of these people.

Since the information sought from nomads differed in most respects from that sought from the settled population, it was not possible to combine the results of the census in one set of tabulations, save in certain limited respects. Thus, tabulations showing the distribution and movement of the population are not greatly disturbed by differences in the *quæsita* as to the settled and nomadic populations: moreover, it is safe to assume that the birthplace of the nomads is Palestine and that the citizenship is Palestinian although these assumptions rest on no explicit information in the collective schedules. In other distributions, however, such as that of age, no combined tabulation was possible because no question as to age was addressed to nomads. As far as possible, however, the information obtained has been interpreted to ensure a certain degree of uniformity in the presentation of the statistics of nomads; and also an essential correspondence between the forms of the separate tabulations for the settled and nomadic populations where the information obtained from the latter was susceptible of such treatment. If, then, the distinctions between total and settled and nomadic populations are kept carefully in mind, the statistics need not be the cause of confusion. While the differentiation is somewhat tedious to the operator engaged in preparing the statistics, it, nevertheless, reflects the facts since the nomadic population differs from the settled population in most respects. Indeed, even if the information sought from Beduin had been identical with that sought from the settled population and had been recorded on similar forms by similar methods, it would still have been necessary to differentiate certain tabulations between the settled and the nomadic populations, if the characters of the latter were to be revealed in true perspective.

287. There will, therefore, be found in Volume II of this Report three types of tabulation: first, those properly applying to the total population where no differentiation between settled and nomadic populations is required; secondly, those applying only to the settled population for the reason that the information given in these tables was not sought from the nomadic population; and, thirdly, those applying by sections to both the settled and nomadic population, the information obtained from the latter having been by a process of interpretation assimilated as far as possible to that obtained from the settled population. The statistical discussion in the other chapters of this Report relates, save where express exception is made, either to the total or to the settled population; and it seems convenient to summarize briefly in this chapter the main characters of the nomads as revealed by those sections of the main tabulations that relate to these people. One further complication must be kept in mind. In the earlier chapters of this Report it was made evident that the results of the census 1922 needed to be recast into the framework adopted for the tabulations of the census 1931, in order to compare like things to like. The possible comparisons are, as

was also pointed out, limited in number. Having regard to the fact that the nomadic population of 1931 consists of 66,553 persons of whom 47,981 are true nomads from Beersheba, the greater part of the discussion in this chapter will be concerned with the characters of the nomadic population of Beersheba only, in so far as light may be thrown on these by comparison of the two sets of censal results. The remaining nomadic elements are comparatively small and reflect the conditions of life of a more or less permanent character assimilated to that of the settled peasant population among whom they live. The absolute statistics in respect of all the elements will, however, be found in Volume II.

288. The nomadic population of Beersheba sub-district in 1922 was returned as consisting of 71,108 persons, and in 1931 as consisting of 47,981 persons, an absolute loss of 23,127 persons being 32.5 per cent. of the population returned in 1922. This great loss raises at once the question of the accuracy of the two censal populations. In 1922 the nomadic population of Beersheba sub-district was not enumerated but was estimated by a method which is described in the Report by the Superintendent of Census, and printed as a preface to the tabulations of the census, 1922. Mr. Barron wrote in the following terms:—

Movement
of population.

“The only section of the population from which census statistics were not obtained was the Beduin tribes of Beersheba. The chiefs were unable to convince their tribesmen that the object of the Census was not for the purpose of enumerating the males with a view to military service, and the tribes, following the precedent set by those of Sinai Peninsula and of Egypt, could not be induced to fill in an amended form of schedule designed to suit the special requirements of the Beduin. As a Census could not be obtained the numbers had to be arrived at by estimation.

“To assist in arriving at as accurate an estimate as possible the lists of tithe payers were utilized. Tithe lists exist from the year 1918, and contain the name of every person who pays tithe or who cultivates land within the tribal areas of the sub-districts of Beersheba, Gaza and Hebron. The information supplied by the principal sheikhs, together with the experience of administrative officials in the district, provided information in regard to the numbers of families in each tribe and sub-tribe, and from the figures thus submitted the Beduin population of the Southern District was calculated at 72,898. In the Baisan sub-district the tribes had submitted to the usual census procedure so that for this area accurate figures are available.

“As a check upon the Beersheba figures the number of families and the numbers of persons per family in the Baisan tribal area were compared with the Beersheba figures taken in conjunction with the tithe records. If this comparison had been accepted as a basis the population Beersheba would have been largely increased, but on the other hand the Baisan area is in a more settled condition and is more densely populated. A somewhat lower ratio of members of a family to tithe payers was therefore adopted. The difference between the provisional estimate of the population made by the District Governor in 1921, and the figures thus arrived at for the Beersheba sub-district in the census may appear somewhat high, but there can be no doubt that the former estimate was much too low. The Ottoman authorities in 1914 placed the tribal population of Beersheba at 55,000 and since that date there has been a migration of tribes from the Hejaz and Southern Transjordan into the Beersheba area mainly as a result of a succession of adequate rainfalls and of pressure exerted by other tribes east of the River Jordan.

“The age return, civil condition and other returns for the tribal area of Southern Palestine have been calculated on the ratio for the remainder of Palestine.”

In earlier parts of this Report, it has been held that the estimate reached by this method gave a result which was greatly beyond the true population; and it need only be said here that, even though allowance was made for the different natural conditions of the sub-district of Beisan, the use of the population functions of Beisan could give no reliable check on estimates derived from the dubious tithe returns employed. It is, of course, true that conditions in the Hejaz and in Trans-Jordan in 1922 were unsettled, and the effect may well have been a temporary migration into southern Palestine, but that this effect could have been measured by lists of persons paying tithe since 1918 is a matter about which it is legitimate to express complete doubt. Temporary migrants would certainly not appear in the tithe lists, and any attempt to demand payment would have been met by disappearance of the people whence they came.

289. In 1931 a system of primitive enumeration was adopted. The census officer¹ of the district numbered the people by spending some five months in company with the sheikhs of tribes and sub-tribes and posting into schedules the details of families given to him wherever those families were at the time². At the time of census day (the 18th of November, 1931), the names of 77 sub-tribes comprising the population were written on pieces of paper which were then cast into a box, and seventeen names were drawn at random from the box. A second enumeration of the seventeen sub-tribes, whose names had so been drawn, was then made as quickly as possible by the same method as was employed for the original enumeration. The differences between the two enumerations are set out in the following table in the form of percentage variations :

Number of double enumerations	Variation per cent. on first enumeration. Decrease (-)
1	- 13.1
8	0.0
2	0.5
1	0.6
1	1.0
1	1.5
2	10.8
1	15.8
17	3.2
Average variation	1.0

There is, as might be expected, a considerable variation between the extremes of the series, but it will be observed that 13 out of the 17 observations have variations lying between 0.0 per cent. and 1.5 per cent., 8 of them showing no variation at all, and that the average of the variations of the whole series is only 1.0 per cent. The enumeration may, then, be taken as more accurate than might be expected from the primitive methods employed³. As will be seen later, there are grounds for believing that the nomadic population of Beersheba is either stationary or is increasing only at a very low rate, and it is impossible, on any hypothesis, other than that of a large temporary migration of nomads from outside Palestine in 1922, to reconcile the census results of 1922 and 1931; for it is repugnant to common sense to suppose that the nomadic population of 1922 has declined by natural causes by 32.5 per cent. in a period of nine years⁴.

¹ Aref. Eff. el Aref, M.B.E.

² It was estimated that about two thirds of them were scattered throughout settled Palestine. They were excluded from the general census.—E.M.

³ It is only fair to state that Aref Eff. el Aref thinks that on the whole he short-counted the nomadic population by about 20 per cent. The sample examination, however, very obviously does not support his opinion.—E.M.

⁴ See also footnote to paragraph 36, Chapter II (Movement of population).—E.M.

290. The Beduin of Beersheba are all Orthodox (Sunni) Moslems.

Religion.

291. No attempt was made to record the ages of the persons enumerated. It will be clear that personal details obtained by hearsay from sheikhs concerning two score thousand persons most of whom were not actually present at the time of the enumeration must always have a high degree of error: and, while information as to sex and occupation may be sought in this manner, no value can be assigned to information as to ages obtained in this way, even if the people themselves are not totally ignorant of the number of their years of life¹. Nevertheless some indirect conception of the age constitution of the Beduin is given by the numbers of persons below and above the age of puberty, as to which some indication was usually given in definite terms. In the case of males the division between the two ages is typified by the following examples:—

Age.

Below the age of puberty	Above the age of puberty
1. An infant at the breast.	1. Every married male.
2. A boy acting as shepherd at the place of temporary sojourn.	2. A youth employed as a ploughman.
3. A boy at school.	3. A youth in charge of transport camels and permitted to move them from one tribe to another.
4. Any boy described by his father as a child.	4. A youth who has taken part in a tribal raid.
	5. Any youth described as a man.

It will be seen that the classification by age depends on capacity and status, and, hence, that the age constitution of the male community in this elementary sense can only be determined indirectly. The case of the females is more complicated. They were entered as either married or unmarried. If they were married, it was assumed that they had reached the age of puberty: if they were unmarried, the only guide as to age was the relationship of the female to the members of the household. For example, if the sons were all under the age of puberty and did not exceed five in number, it was assumed that a reasonable number of daughters were also below the age of puberty. If, on the other hand, an unmarried female was described as sister of the head of the family, she was assumed to be of nubile age. Obviously, this indirect method permits opportunity of error, and, if the number of males under the age of puberty were over-estimated, over-estimation would be propagated into the number of females below the age of puberty. In the Principal Table appearing in Volume II, the mean age of puberty has been taken as 13 years for both sexes; but, here again, even if the information given directly were accurate and the indirect classification were reliable, the onset of adolescence may begin in some persons at 10 or 11 years of age and in others may be delayed until 14 or 15 years of age. It will be realized, then, that the classification by reference to "age at puberty" can, at best, have only limited value.

292. In the Beersheba sub-district the numbers of persons, males and females, per thousand in the two classes are given in the following table:—

NUMBER OF PERSONS PER 1,000 BELOW AND ABOVE THE AGE OF PUBERTY.

Ages	Persons	Males	Females
All ages	1,000	1,000	1,000
0 - 13	445	473	412
13 and over	555	527	588

¹ It is usually supposed that they have no idea of their ages.—E.M.

Since the ages in later life are not known it is impossible to arrange a classification according to the Sundbärg theory¹. It is probable, however, that that theory is invalid as applied to nomadic and primitive people, seeing that it was enunciated after the examination of European settled populations living under conditions totally different from the conditions under which nomads exist. Primitive people are short-lived, so that it is probable that the number of nomads aged 50 years and upward is relatively small. In that event, the population aged 0-15 years and 15-50 years will be about equal.

It is not, however, possible to decide definitely whether the population is regressive, stationary or progressive.

The fact that the proportion in the reproductive and later ages is higher than in the ages of childhood gives no real indication *per se* of the biostatistical characters of the population. Indirect light is thrown on the problem by the relation between the numbers of earners and dependants, which is discussed in a later paragraph. The occupational statistics, collated from second-hand evidence, have naturally a degree of error, but they are more likely to be nearer accuracy than the age statistics obtained indirectly. It will be shown that the occupational statistics reveal that there are 2.44 dependants to one earner. Making allowance for an over-estimation of the number of earners and assuming that the average economic unit among the nomads consists of husband, wife and children, there is, here, a definite indication that, at present, the Beduin of Beersheba are either stationary as regards growth, or, at best, growing in numbers very slowly. The result by classification by the age of puberty suggests that the proportion of children is high; but this result is not necessarily inconsistent with the result obtained by consideration of the dependency relation.

If nomads are short-lived, the Sundbärg theory is not valid as applied to them; and the population naturally divides itself more or less equally between the reproductive and the non-reproductive elements, and the proportion of children will inevitably appear to be high. The whole question is of considerable interest and cannot be decided in the light of the statistics which may be inherently inconsistent but are not necessarily so. Inquiries as to conditions among the Bedu tribes of Trans-Jordan tend to show that the restrictions on nomad life, due to the advance of good order and government, have reduced the means of subsistence of the present adult generations, accustomed, in the past, to find their livelihood in warlike raids upon their enemies. These raids regulated the growth of the tribes in two ways; first, the adult males were subject to extraordinary risk of life, and the consequent mortality prevented too fast a growth; and, secondly, success in war provided the means for supporting a younger generation.

In Trans-Jordan most of the tribes confess to a decline in the number of children in recent years². Whether this phenomenon is the result of higher mortality following reduced subsistence or of a reduction in fertility cannot be determined in the present stage of knowledge. Conscious limitation of family is not unknown among Arabs³, and, possibly, may be a factor for consideration. For what the evidence is worth there is a suggestion that the nomadic population of Beersheba is increasing, if at all, by a slow rate, and it is not impossible that it may be stationary or even in decline. Restrictions on the traditional life of profiting by raids may very well be accountable for such a phenomenon.

Sex.

293. The sex proportions in the nomadic population of Beersheba are given in the following table:—

NUMBER OF FEMALES PER 1,000 MALES. BEERSHEBA NOMADS.

Year	All ages	0 - 13	13 and over
1931	844	735	942
1922	965	...	...

¹ See Chapter V (Age).—E.M.

² I am indebted to Lieutenant Colonel C. A. Shute C.B.E. for this observation. One tribe, the Peni Sakhr, however, provides the exception, due, so my informant tells me, to its compromise with civilization to the extent of grazing its animals on land opened to barley cultivation in recent years and harvested annually.—E.M.

³ *Arabia Felix*. Bertram Thomas, 1932, p. 219.—E.M.

It is instantly obvious that there is a great deficiency of females : the principal deficiency is found in the ages of childhood ; and it is probable that the proportions are adjusted in the adult ages by a high mortality among males. The ratio at all ages appears to have fallen, since 1928, but, as was explained in the preface to the Census Report for that year, a ratio was then assumed for the tribal areas of south Palestine and not determined from an enumeration, so that the comparison is meaningless.

294. It has been assumed that no persons of either sex who have been married are below the age of 13 years. It is the general rule among nomads that girls should marry as soon as they become nubile, so that marriage among Beduin women is very nearly universal. The following tables reveal the significant relations in the conjugal estates :—

Conjugal condition.

I.—NUMBER PER 1,000 OF EACH SEX IN EACH CONJUGAL CONDITION.

Age	Sex	Unmarried	Married	Widowed and Divorced
All ages	Males ...	620	363	17
	Females ...	457	538	5
0 - 13	Males ...	1,000	...	...
	Females ...	1,000	...	...
13 and over	Males ...	279	689	32
	Females ...	78	914	8

II.—NUMBER PER 10,000 OF EACH SEX IN THE TWO AGE PERIODS AND THE CONJUGAL CONDITIONS.

Age	Persons	Unmarried	Married	Widowed and Divorced
(a) Males :				
All ages	10,000	6,199	3,633	168
0 - 13	4,727	4,727	...	...
13 and over	5,273	1,472	3,633	168
(b) Females :				
All ages	10,000	4,573	5,378	49
0 - 13	4,115	4,115	...	...
13 and over	5,885	458	5,378	49

III.—NUMBER OF MARRIED WOMEN PER 1,000 MARRIED MEN.

1,249

These conjugal conditions reflect a population divided more or less equally into children and persons of nubile age. Of the persons of nubile age 69 per cent. of the males are married and 91 per cent. of the females. One remarkable feature of the distribution is to be found in the condition of widowhood, the proportion of widowers being four times the proportion of widows. If the statistics be reliable they show, contrary to experience in settled populations, that the mortality among married women is higher than the mortality among married men. Seeing that the risks of childbirth are not meliorated by the skilled attention of physicians and trained midwives this may very well be the case. In the traditional life of the nomad, which is now no longer possible in Palestine, the natural mortality among wives was compensated by the mortality among husbands in raids and internecine warfare ; and the change from this form of life may be reflected in the unusual statistics of widowhood. A third cause is certainly to be found in the deficiency of females generally, so that there is a high degree of probability of the re-marriage of widows, and very little prospect for the re-marriage of widowers. The proportion of married women to married men is very high, there being 1,249 wives to every thousand husbands. This proportion, indicative of polygamy,

may throw some doubt on the correctness of the returns. The Beduin, as Moslems, are permitted to be polygamous, and those who can afford it have three or four wives. Marriage, divorce and re-marriage are, however, arranged without difficulty and, in such circumstances, the proportion of polygamous marriages seems to be high. It seems possible that the heads of families, in giving the information, have returned, in some instances, women as married who have been married but who are now either divorced or widowed. It would be unwise, nevertheless, to be dogmatic in either direction; and the statistics may represent the facts so far as the Beersheba Beduin are concerned. In any event it is certain that marriage is practically universal among the females, that it takes place early in their lives, and that widows have ample opportunity of re-marriage.

Literacy. 295. Among Beersheba nomads, numbering 47,981 persons, there are 53 persons, of whom one is a female, claiming to be literate. The whole population may, therefore, be described as illiterate.

Occupations. 296. Of the nomadic population of Beersheba 13,924 persons are returned as earners and 34,057 as dependants. The general discussion given in Chapter XI (Occupations and Industries) suffices to make clear the precise meanings assigned to the two terms. There are thus 2.44 dependants to one earner. The female earners are few in number and it is possible that some of them support dependants who are also supported by male earners, but, making allowance for this possibility, the proportion of dependants to earners does not exceed 2.5. The normal Bedu family may be supposed to consist of the husband and father as the earner and the wife and children under 13 years of age as dependants. In some cases the dependants include the aged and the infirm. On this basis it is clear that the nomadic population is not reproducing itself. On the other hand, there may have been returned as earners a number of youths who, in strictness, might be termed working dependants. The number of married men has been given as 9,454 and the number of earners exceeds this number by nearly 4,500. If the married men alone be taken as earners, then the number of dependants per earner is 4. It seems, therefore, that the familial unit, in the economic sense, may consist of as many as 4 or 5 persons, of whom one is the earner and the remainder dependants, either working or not contributing to subsistence. If allowance be made for those infirm, by reason of illness or age, it appears that the average family consists of less than five persons of two successive generations: and the combination of this conclusion with the distribution by age (nomads being assumed to be short-lived), which is the subject of paragraph 292 above, suggests that the rate of growth of the Bedu population of Beersheba is necessarily slower than that of the settled population.

297. The whole of the population is supported by agriculture and pasture; 42,868 being supported directly by cultivation and 5,113 by animal husbandry. The relations between earners and dependants in the two groups are interesting as revealing certain social conditions. The following table gives the figures:—

	Persons supported	Earners	Dependants	
<i>Absolute figures :</i>				
Total	47,981	13,924		34,057
Ordinary cultivation	42,868	10,377		32,491
Animal husbandry	5,113	3,547		1,566
	Persons supported	Earners	Dependants	Number of dependants per earner
<i>Proportionate figures :</i>				
Total	100	100	100	2.44
Ordinary cultivation	89.3	74.5	95.4	3.1
Animal husbandry	10.7	25.5	4.6	0.4

It seems from the figures given in the table that the unmarried men are employed in animal husbandry and that the family as a unit is primarily dependent on agriculture. It may, therefore, very well be that a proportion of the herdsmen should be treated as working dependants and not as earners and, if that be the case, the population may be growing somewhat faster than the earlier occupational statistics appear to imply. If all the persons stated to be supported by animal husbandry are included among the dependants on agriculture, the number of dependants per earner¹ becomes 3.6. On this basis there are about 25 surviving children for every 10 married couples².

298. The number of earning land-owners is 7,869 : and that of tenants is 2,508. It may be inferred that the land-owners tend, on the whole, to cultivate their lands directly. A land-owner in Beersheba is a land-owner on sufferance, since very little of the land of the sub-district is registered in the land offices of the Government. In a strict sense most of the land may be described as *mewat*³, not having been assigned or disposed by deed. Nevertheless, the "privileges" of the nomads have been confirmed from time to time, and it is, undoubtedly, part of the "customary" law, as opposed to formal law, to recognize the nomadic traditional cultivation in this area as a normal assignment. It may be anticipated that, with the advance of good government in this empty territory, these lands will be brought under formal rules of disposition, and that the opening of new cultivation will be controlled. If fresh water can be raised to the surface at reasonable cost, the future of the Beersheba sub-district will differ entirely from its past. At present, the nomadic population derive a bare existence from agriculture, dependent on a small and very variable annual rainfall. That the struggle is great is evident, because each annual migration of the Beduin, to the central and northern parts of Palestine, leaves behind an ever greater number of persons, who find employment as labourers in ordinary cultivation among the settled population. This movement intensifies the pressure of population throughout settled Palestine ; and it is, therefore, of great importance that, granted the discovery of suitable sub-soil water, economical means of development be devised for the empty regions of the Beersheba sub-district.

¹ I have been sufficiently impressed by this possibility that, in Chapter II (Movement of population), I have made allowance for a moderately large increase of population in Beersheba during the nine years 1922-1931 ; but I confess that the whole matter is extremely doubtful in the present state of knowledge.—E.M.

² It is remarkable that the nomads of Bethlehem who dwell to the east and north-east of that town towards the Dead Sea give a proportion of dependants to earners of 3.6 in agriculture. Agriculture in this area is of even poorer value than that in Beersheba, and it may be inferred that smuggling, for which these particular nomads have special aptitude, is the real source of their support.—E.M.

³ See Chapter I, paragraph 31.—E.M.

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