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ABSTRACT

A Geographical Study of the Pattern, Processes and Consequences  
of Urban Growth in Sierra Leone in the Twentieth Century

Thesis submitted to the University of Durham for the  
Degree of Doctor of Philosophy, 1966

by

Milton E.E. Harvey, B.A.

Urbanization in Sierra Leone is recent. It is a consequence of the colonial era which brought the slave trade, the production of cash crops geared towards the temperate market, the construction of the railway, modern administration and mining. These have resulted both in changing the traditional settlement pattern of nucleated villages with dispersed hamlets, and in producing ethnic heterogeneity in towns. New settlements, which developed at characteristic places (such as heads of navigation, at confluences, at break of slopes), were founded either by warriors (Kailahun, and Bo), or hunters (Kabala, Matru), or social non-conformists (Magburaka, Yonibana).

The resultant urban pattern has been characterized by mutability; the decay of towns, for example, at heads of navigation was compensated by the growth of centres like Bo, Mano, and Segbwema along the rail. Mining, notably diamond

mining, led to the mercurial growth of existing towns and the development of small mining settlements without any central place functions.

As towns grew, because of rural-urban migration, there gradually emerged ecological patterns within them. Commerce concentrated in particular sections, recreation in others, and certain functions like education, medicine, and administration occupied relatively quieter peripheral locations where future expansion is feasible. Industries are generally absent from townscapes, and urban house types range from the most modern reinforced concrete buildings to the circular mud hut, although the latter is gradually disappearing. The bulk of the urban population is still engaged in primary activities.

Urbanization in Sierra Leone has resulted in many problems, including the absence, in most towns, of social amenities like water supply, electricity and restaurants as well as inadequate housing facilities for the urbanites, and the increase in social vices, crimes and delinquency.

A Geographical Study  
of the  
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URBAN GROWTH IN SIERRA LEONE  
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Thesis submitted for the degree of  
Doctor of Philosophy  
of the  
University of Durham

Milton E. E. Harvey, B.A.

Volume 1: Text

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May 1966

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**PREFACE**

Successful research is based on the collection of material and its satisfactory presentation. For the collection of data on which this thesis is based, my appreciation goes to my Sponsors, the Sierra Leone Development Company, who for two years financed my stay in Sierra Leone. For its presentation, I am very much indebted to my Supervisor, Dr. John I. Clarke, formerly Professor of Geography at Fourah Bay College, the University College of Sierra Leone, but now Reader in Geography, Durham University. He not only directed and stimulated my thoughts, but helped considerably in changing my undergraduate essay-writing style to something more compact, less repetitive and more logical.

In Sierra Leone, my thanks go to the innumerable people all over the country, who helped me with relevant information, and to the Lecturers and Research Students of the Geography Department, Fourah Bay College, for valuable discussions and criticisms. I am especially grateful to Professor Dewdney and Dr. P.K. Mitchell, Professor and Senior Lecturer in Geography respectively, for reading sections of this thesis. In fact, the latter kindly allowed me to reproduce one of his maps (Fig. 3.1). In addition, the author would like to thank Mr. S.J.A. Nelson, Cartographer in the Department, for drawing a few of the maps (Figs. 2.2, 4.1, 5.1, 8.1, 8.2, 8.3).

Research in developing countries is beset by many problems; even typing is difficult. Consequently, I must not forget to thank Miss Victoria Cassell and Mr. Samuel Apeji for the typing of this thesis.

But all these people, not even my Supervisor, should be held responsible for views expressed in this thesis, which are purely mine.

The thesis comprises two volumes : the first contains the text, while the second contains Maps and Illustrations, Selected Bibliography and Appendices.

May 1966.

M.E.E.H.

## INTRODUCTION

Works on the general geography of Sierra Leone are either out of date,<sup>1,2</sup> or superficial,<sup>3</sup> or elementary.<sup>3,4</sup> In the study of settlements, we also find this paucity of material. Here, so far, the emphasis has been on the study of large individual urban centres, "upon Freetown itself, the national capital and main seaport,<sup>5,6</sup> or upon towns such as Lunsar,<sup>7,8</sup> where the relatively recent and sudden expansion of mining activity has promoted inward population movement and concentration of settlement".<sup>9</sup> Besides these, papers have been published on Kenema,<sup>10</sup> Moyamba,<sup>11</sup> and Matotoka, a small Temne town which experiences seasonal out-migration to the diamond mining areas. Although only a few of these towns,<sup>5,7,9</sup> were studied by geographers, the approach of Gamble,<sup>8,10</sup> and Ranson,<sup>11</sup> is essentially geographic. Like geographers, they concentrated on the

"differentiation of the whole of the urban settlement into its functional areas of social groupings as expressed in the structure and uses and grouping of its building structure".<sup>12</sup>

They are not very concerned with both tribal life and social change in towns.<sup>6</sup>

Even in West Africa, as a whole, studies of urban centres by geographers are very few. Examples are Katsina,<sup>13</sup> Kano,<sup>14</sup> Dakar,<sup>15</sup> and Ibadan.<sup>16</sup> In general texts on urbanism in Africa - especially West Africa - geographers are also poorly represented. Symposia like The Social Implications of Industrialization and Urbanization in Africa South of the Sahara (1956), Urbanization in African Social Change, (1963), Urbanism in West Africa (1959) and Social Change in Modern Africa (1961), concentrate on social patterns and social change; only two articles,<sup>17</sup> by Steel and Harrison Church, are included. Any research on towns or system of urban centres within territorial units in Africa is not only justifiable but expedient.

In contrast to this paucity of research by geographers of tropical African towns, are the numerous ones of towns in the developed countries especially Europe and America. The most famous are those of the guinea-pig of American urban research - Chicago. Other towns studied in great detail include London, Paris, and Belfast. Many general works on the size and spacing of cities (Christaller, 1933;<sup>18</sup> Losch, 1938;<sup>19</sup> Boesch, 1952;<sup>20</sup> Bracey, 1953;<sup>21</sup> Stewart, 1958<sup>22</sup>) and all the theoretical work in urban geography have been based on analysis of towns in developed countries.

This poverty of urban geographic material in tropical

Africa is due to the fewness of local geographers, the relatively small number of temperate geographers interested in tropical Africa, the recent urbanization in this region and the inadequacy and unreliability of crude research data.

The evolution of geography as a separate branch of study is relatively new compared with the classics and theology. If geography is new in Europe, it is a much more recent introduction in the former colonies where the emphasis has been on theology, medicine and law.

Although stories and myths about Africa being the "Dark Continent", and Sierra Leone the "White Man's Grave", are gradually fading, the feeling of reluctance among many temperate intellectuals to work in the tropics still persists. This is perpetuated firstly, by ethnology which aims, in most cases, at presenting the institutions of tribes unexpurgated; thus giving an impression of the still existing primeval conditions. Secondly, it is perpetuated by the rise of nationalism in Africa and the growing feeling in Europeans that they have no future in Africa.

Besides these factors, the most recent growth of towns in the forested areas of tropical Africa means that most of our towns are incipient compared to those of developed countries. Apart from the traditional urbanization of the Yoruba, the growth of urban centres in this section of West Africa is essentially consequent upon the institution of colonial rule.

Detailed urban research is also inhibited in Africa by the absence or unreliability of data. Census information is often inflated (for political reasons), and many countries including Sierra Leone (1963), have just had their first true census. Because of these problems, the researcher has to depend on estimates, oral traditions and sample surveys. The data collected for this thesis was from oral traditions, hut counts, old historical documents, cadastral sheets, air photographs, the 1963 Census, and field mapping of towns by the author from September 1963 to October 1965.

Oral traditions were especially useful in studying the historical development of particular urban centres. After a thorough study of the map, old people were asked about the history of that particular settlement. This was done in either or both of two ways : where it was possible, a syndicate of old people was asked about the town's history. Here members could easily thrash out their differences as regards historical sequences. In some other case, three or more old people were interviewed separately, and the facts, were cross-checked. During these interviews questions about the time certain houses (mainly public buildings), and certain sections of the town were built, proved very useful for the construction of growth maps. Most of the historical maps in the thesis were constructed on these bases. In some cases, (Bo, Kabala, Makeni, Bonthe, and Yonibana), the oral traditions were augmented by information derived from cadastral

sheets which were produced for a limited number of localities between 1937 and 1950.

Sierra Leone is fortunate to have a complete air photo coverage. The photographs proved very helpful in the study of town forms, whereas the low altitude ones for some towns were useful bases for detailed mapping.

Besides these, the topographical maps published in 1930-31 on the scale of 1/62,500 are available for all sections of the country. They were the only sources available for the construction of site maps inspite of Mitchell's cautious warning that

"the quality of the surveying of some of the more rugged areas ... left much to be desired, and the free use of unchecked formlines might seriously mislead the uninitiated".<sup>22</sup>

The use of the 1/50,000 sheets (1958-?) is limited because at present they only cover the western half of the country. When the second edition (which is contoured) is produced, they may completely displace, except for historical analysis, the 1/62,500 topographical sheets. Useful for compilation work are the 1/250,000 sheets which are based on

"the detailed work of the Anglo-French Boundary Commission of 1895-96, and that of the Anglo-Liberia Boundary Commissions of 1903 and 1913-14".<sup>23</sup>

Most of the distribution maps in the thesis were, however, drawn on the 1/500,000 scale. On this scale, correlations between the distribution of towns and those of relief, geology, chiefdoms, etc. were relatively easy.

As regards the size of towns, two sources were available: From the 1927-29 hut counts in the village books of Sierra Leone Survey, it was possible to estimate the population of nucleated settlements, by multiplying the number of houses in each centre by six. (This was the constant used for the estimated population of some settlements in the Military Report on the Colony and Protectorate of Sierra Leone (1933), and by P.K. Mitchell<sup>9</sup>). The 1963 Census has been a very valuable source not only for the population size of localities, but for data on various other urban demographic characteristics : sex ratio, population structure, and occupational composition.

The use of standardized techniques in research is advocated by many people in order to make objective comparisons possible. But one begins to wonder, because of the youthful state of our towns, and the inadequacy of data over long periods, whether we should apply en bloc research methods of developed areas to undeveloped ones. In the study of the commercial areas of provincial towns, for example, the lack of data meant that indices like the Central Business Height devised

by Murphy and Vance for American cities, could not be calculated; only the visual concentration of commerce was adopted as a guiding line for delimiting CBDs. Even in the case of a relatively well developed and evolved city like Freetown, McKay,<sup>26</sup> after applying the indices of Murphy and Vance, found that only three blocks - having more than an Intensity Index of 50%, and a Height Index of 1.0 - were qualified to be included in the CBD. Yet observation indicates clearly the presence of an intra-urban region which is directly analogous to the CBD of developed towns. Consequently, he used the Retail Frontage Percentage Index adopted by de Blij (1963)<sup>27</sup> in Dar es Salaam. The results were not only realistic, but very similar to those obtained by de Blij. McKay claims that the reason for the impotency of the Murphy and Vance method was the presence of empty spaces within block (in Freetown and Dar es Salaam) which reduced the indices, whereas the blocks in American cities are well utilized by central business uses - hence higher indices. Similarly, Green's method<sup>28</sup> for delimiting urban hinterlands by an analysis of bus services is not feasible because bus services are very localized. In Sierra Leone either education, or medicine may be used for such analysis. Even generalizations about the internal structure of

cities - neither Burgess' concentric theory nor Hoyt's sector one - are not applicable to towns in Sierra Leone nor in fact, do they fit most towns in developed areas.

Some American geographers have postulated models for certain aspect of urban geography. Here urban geography is made into an experimental and an exact science. In postulating models,

"a projection is made by considering the present, using existing data to indentify a relationship as given and then introducing new variables for the independent variables to derive a value for the dependent variable".<sup>29</sup>

These models are often mere mental exercises; if they are not widely applicable to temperate areas, it is much <sup>more</sup> difficult to apply them to tropical regions. Simmons himself shows an awareness of the limitations of models when he stated that

"one can never specify completely all the variables controlling population, technological change and cultural attributes... In every model certain assumptions are made and if these ... are not fulfilled by the empirical evidence then new factors must be incorporated into the model. Although the relationship between cars and population in Illinois at present may hold in Indiana, it will not hold for Ghana; nor will it be of any use in Illinois in 1990".<sup>30</sup>

But we cannot dismiss all the literature on urban geography as not applicable to underdeveloped areas; some

techniques are very useful: the application of the mean nearest neighbour distance, the correlation between actual rank-size graphs and the expected population analysis, and the adoption of statistical methods (used especially by Berry and Garrison) for the analysis of urban functional hierarchy.

Although the application of Christaller's theoretical hexagonal market areas failed to prove particularly helpful when applied to Sierra Leone towns as they were in 1927 and 1963, the application of his work on functional linkages and dependence of smaller rural areas on small urban centres, small towns on average ones, and average ones on larger centres proved valuable.

Even when research methods designed for a study of developed areas proved useful, they need to be adopted for use in underdeveloped areas. Particularly is this true where - as in West Africa - urbanization is recent, and towns are essentially

"government headquarters, trade stations, religious centres - devoted, in short, mainly to consumption purposes. They were born by the will of the colonial power which needed them for its own purposes".<sup>30</sup>

Besides the fact that contrasts in urban characteristics in developed and developing areas inhibit the wholesale applicability of research methods, another factor which makes comparison of urban research findings difficult is the arbitrary way in which

urban centres have been defined in different countries. In some cases, the emphasis has been placed on population size, and certain threshold population figures have been decided upon. In the United States, it is 2,500, in France 2,000, and in Nigeria, 5,000. In some others, a functional definition has been adopted. In Egypt, for example, urban areas are "governorates and chief towns of provinces and districts". Dickinson defines an urban centre in Western Europe and North America as a compact settlement engaged mainly in non-agricultural occupations. In this thesis, we attempt to define urban areas in Sierra Leone according to two sets of criteria : size of population and functional complexity of settlements. Population alone will not be sufficient since many large diamond mining centres, have practically no central place functions. At the other end, one finds settlements with very small population, but many urban functions. A consideration of both population and functions helps solve these problems.

Rapid urbanization has been in progress for about two centuries in Europe and America, but in tropical Africa, as previously stated, it is very recent but stupendous: six centres now have more than 300,000 inhabitants each (Dakar, Lagos, Ibadan, Leopoldville, Addis Ababa and Khartoum), and six others more than

200, 000 people (Accra, Abidjan, Luanda, Nairobi, Tananarive, and Salisbury). This urbanization in Africa, the result mainly of exotic factors, has many repercussions. Migrants to towns have problems of readjustment to a very individualistic society; housing problems become inevitable, unemployment is rife and crime and delinquency become important features in towns. A study of urbanization and its consequences is therefore desirable, if we hope to solve the problems resulting from rural-urban migration.

The aim of this thesis, therefore, is to present an analytical account of the pattern, processes and consequences of urban growth in Sierra Leone. It tries to find answers to such questions as : Apart from Freetown are there truly urban centres in Sierra Leone? What are the characteristics of Sierra Leone towns? What factors were responsible for their growth? And what are the consequences of growth?

In attempting to tackle such questions, the thesis is divided into four main sections: In the first section (A) after attempting a definition of an urban centre and making a functional classification of Sierra Leone towns, the pattern and processes of growth of these urban centres are discussed. In the second section (B), a consideration of site and urban forms is followed by a discussion of the factors influencing them.

The present internal patterns (of land use and building types), results of both the physical conditions of the site and socio-economic factors within a historical perspective, are also analysed. Although generalizations are the basis of geographical research, case studies may help to reinforce these conclusions. Consequently, in Section C, the urban geography of five towns is discussed in some detail. Since the towns selected are found in contrasting geographical regions, and at different stages in urban development, the various types of urban growth (by fusion and accretion), the evolution of land use patterns (compare that of Yonibana to that of Makeni), and the foundation of towns (by warriors, society leaders, hunters, etc.), may become clear. In the final section, the problems of urbanization are examined and conclusions made about future urbanization trends in the country.

In this thesis Freetown has been completely ignored because the thesis aims primarily at examining the growth and evolution of traditional towns, resultant patterns (of land use, and house types) and their problems. Freetown is not a traditional settlement; it is a testimony of the philanthropy of people like Sharpe, Wilberforce and Macauley.

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SECTION A

URBANIZATION AND ITS CONSEQUENCES

The settlement pattern of any area reflects the interaction of many factors in vogue at a particular time. With a change in the agents, there is usually a modification of the settlement network. This alteration is often reflected in the physiology and anatomy of both individual towns and the general urban system. Consequently, at a particular time, we could study the demographic characteristics, and the functional patterns in towns within a definite territorial unit.

CHAPTER IURBAN FUNCTIONS

The importance of a settlement as a central place may be tested by either the

"assessment of the business and services existing in the centre; or ... (the) measurement of the area dependent on the centre for goods and services".<sup>1</sup>

These methods have been used by many people including Smailes,<sup>2</sup> Dickinson,<sup>3</sup> and Berry and Garrison,<sup>4</sup> and the general conclusion seems to have been the existence of a central place hierarchy related to the population and functional complexity of towns within a territorial unit. Consequently, Berry and Garrison, represented central places

"as points on the continuum of functional complexity by the number of functions each possessed".<sup>5</sup>

The hierarchical class system is believed to follow from the functional class system.

An analysis of the functions of Sierra Leone towns is feasible by an assessment of business and services existing in them and by a study of their occupational structures.

1. Assessment of Business and Services

Although it is difficult to obtain relevant functional information for most towns in the country, where possible,

"wholesale trading establishments, banking, and financing agencies, trades and personal services, amusements, and various other services, including professions and government administration, are considered in the determination of each centre's status".<sup>1</sup>

Twenty four functional types are used in this analysis; but here,

unlike Canterbury (in New Zealand) and Snohomish County in Washington (the United States), there are more attributes than variates. This possibly reflects the incipient stage of urbanization in the country, and the general absence of functional duplication in towns irrespective of their sizes.

Towns with over 1,000 people are ranked according to their functions, and

"considered as points on the continuum of functional complexity with reference to the number of functional units contained in each town".<sup>6</sup>

An analysis of the distance measurements between the points shows that three broad classes-A,B,C,-exist (Fig. 1.1, Table 1.1).

The simple correlation coefficient,  $r_{xy}$ , is calculated so as to ascertain the relationship between population size and number of functions. Although the value of 0.713 is less than that of Leslie King's for Canterbury, it shows that there is some correlation. The value of  $r^2$ ,

"which is a measure of the total variation in population size which is accountable for by the relationship with number of functional units"<sup>6</sup>,

is only 0.504. Though not as high as King's 0.868 for Canterbury, it is encouraging. These values of  $r_{xy}$  and  $r^2$  show that there is some relationship between size and functions of towns in Sierra Leone, but the correlation is not as marked as in developed countries.

Reasons for the Relatively Low Correlation: The low correlation coefficient and lower value of  $r^2$  reflect the influence of many factors:-

TABLE 1. 1

## DISTRIBUTION OF FUNCTIONS

TOWN	POPULATION	No. of Functional Units	GENERAL FUNCTIONS						Sum of Variates	ATTRIBUTES												Sum of Attributes					
			VARIATES																								
			3	2		1				Administration: Chiefdom & Rural District Provincial Capital	Airfields	Bookshop	Car & Truck Dealer	Cinema	Colleges	Commercial Firms	Electricity	Hotels	Library	Police Stations	Public Transport			Taxi Services	Telephone	Water Supply	
7300	5400	4400	4300	2800	2300																						
Freetown	127,917	131	12	30	12	20	6	36	116		1	1	1	1	1	1	1	1	1	1	1	1	1	1	15		
Bo	26,613	50	5	7	3	6	3	9	33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	A	
Kenema	13,246	34	3	4	3	4	1	3	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16		
Makeni	12,304	26	2	3	2	3	1	4	15	1	1	1		1	1	1	1	1	1	1	1	1	1	1	11		
agburaka	6,371	26	3	3	2	2	1	5	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10		
Bonthe	6,230	21	1		2	3	1	6	13	1				1	1		1	1	1	1	1	1	1	1	8		
Moyamba	4,564	20	2	2	1	4	1	3	13	1	1		1	1		1		1	1	1	1	1	1	1	7		
Kissy	13,143	19	4	4	1	1	1	3	13	1				1		1	1	1	1	1	1	1	1	1	6	B	
Port Loko	5,809	19	2	1	2	2	1	3	11	1	1	1		1		1	1	1	1	1	1	1	1	1	8		
Koidu	11,706	18		2	3		2	2	9	1		1	1	1	1	1	1	1	1	1	1	1	1	1	9		
Kabala	4,610	17	1	2	1	3	1	3	11	1	1				1		1	1	1	1	1	1	1	1	6		
Pujehun	2,034	17	2	2	1	3	1	2	11	1	1			1		1		1	1	1	1	1	1	1	6		
Kailahun	5,419	16	1	1	2	3	1	2	10	1	1			1		1		1	1	1	1	1	1	1	6		
Segbwema	6,258	15	3	1	3	1	1	3	10	1				1		1		1	1	1	1	1	1	1	5		
Blama	5,073	15		2	2	1	1	3	9	1				1		1	1	1	1	1	1	1	1	1	6		
Lunsar	12,132	13	1	1	2	1	1	2	8	1						1	1	1	1	1	1	1	1	1	5		
Kambia	3,700	13	1	1	2	1	1	1	7	1	1			1		1		1	1	1	1	1	1	1	6		
Wilberforce	6,950	12		1		1	2	2	6	1				1		1	1	1	1	1	1	1	1	1	6		
atru	2,909	12	1	2	1	1	1	2	8	1						1		1	1	1	1	1	1	1	4		
Yengema	7,313	11	1		2		1	3	7			1				1		1	1	1	1	1	1	1	4		
Murray Town	4,395	10	2	1			1	1	5					1		1		1	1	1	1	1	1	1	4		
Lungi	2,170	10				1	1	1	3			1			1	1	1	1	1	1	1	1	1	1	5		
Wellington	4,958	9		1	2			1	4	1				1		1		1	1	1	1	1	1	1	7		
Rokupr	4,151	9		1	1	2	1	2	7					1		1		1	1	1	1	1	1	1	5		
Waterloo	3,215	9	1		1	1	1	1	3	1		1			1		1	1	1	1	1	1	1	1	6		
Pendembu	2,696	9		1	2	1	1	1	6	1					1		1	1	1	1	1	1	1	1	3		
Mano	2,286	9		1	1	1	1	3	7	1								1	1	1	1	1	1	1	2		
Jaiama (N.K.)	3,616	8	2			1	1	2	6	1								1	1	1	1	1	1	1	2		
Hastings	3,022	8			1			1	2	1		1			1			1	1	1	1	1	1	1	6		
Kamakwie	3,572	7	1		1	1	1	1	5	1		1			1			1	1	1	1	1	1	1	2		
Rotifunk	3,520	7			1	1	1	2	5	1								1	1	1	1	1	1	1	2		
Goderich	2,034	7						2	2					1	1			1	1	1	1	1	1	1	5		
Bumpe	1,812	7	1			1	1	2	6	1								1	1	1	1	1	1	1	2		
Sefadu	1,173	7				2			2	1	1				1			1	1	1	1	1	1	1	5		
Panguma	3,100	6				1	1	1	3	1								1	1	1	1	1	1	1	3		
Lumley	2,015	6		1				1	2						1			1	1	1	1	1	1	1	4		
Pepel	3,793	5					1	1	2					1				1	1	1	1	1	1	1	3	C	
Daru	1,753	5			1		1	1	3	1		1						1	1	1	1	1	1	1	2		
Tikonko	1,362	5				1		2	3	1								1	1	1	1	1	1	1	2		
Gbangbatok	1,155	5				1	1	1	3	1								1	1	1	1	1	1	1	2		
Songo	1,062	5				1		2	3	1								1	1	1	1	1	1	1	2		
Boajibu	4,333	4				1	1	1	3	1								1	1	1	1	1	1	1	1	1	
ambolo	3,595	4				1		1	2	1								1	1	1	1	1	1	1	2		
Baoma	2,722	4				1	1	1	4									1	1	1	1	1	1	1	1	1	
Manowa	1,844	4				1	1	1	3	1								1	1	1	1	1	1	1	1	1	
Zimmi	1,524	4				1	1	1	3	1								1	1	1	1	1	1	1	1	1	
Kyehom	1,381	4					1	1	2	1								1	1	1	1	1	1	1	1	2	
Bunumbu	1,261	4					1	1	2	1					1			1	1	1	1	1	1	1	2		
Mange	1,262	4			1			2	3	1					1			1	1	1	1	1	1	1	1	1	
Bumbuna	1,164	4				1	1	1	3	1								1	1	1	1	1	1	1	1	1	
Aberdeen	1,159	4						1	1									1	1	1	1	1	1	1	1	1	
Falaba	1,013	4					1	1	3	1					1			1	1	1	1	1	1	1	1	3	
Jaiama (N.Y.)	6,064	3					1	1	2	1								1	1	1	1	1	1	1	1	1	
Yamandu	2,910	3					1	1	2	1								1	1	1	1	1	1	1	1	1	
Hangha	2,895	3					1	1	2	1								1	1	1	1	1	1	1	1	1	
Gandorhun	2,207	3			1			1	2									1	1	1	1	1	1	1	1	1	
Kunkuna	2,038	3				1	1	1	3									1	1	1	1	1	1	1	1	1	
Kayima	1,853	3					1	1	2	1								1	1	1	1	1	1	1	1	1	
Mobai	1,653	3					1	1	2	1								1	1	1	1	1	1	1	1	1	
Bwedu	1,438	3					1	1	1	1								1	1	1	1	1	1	1	1	1	
Serabu	1,400	3					1	1	3									1	1	1	1	1	1	1	1	2	
Koribundu	1,350	3			1		1	1	3									1	1	1	1	1	1	1	1	1	
Gbenti	1,320	3					1	2	3									1	1	1	1	1	1	1	1	1	
Bacma	1,174	3					1	1</																			

(a) The small number of variables compared to the comparatively large number of attributes may not lead to a logical hierarchy of functional units.

(b) The ethnic heterogeneity of the country's population often results in the localization of functions in some towns irrespective of size. Magburaka, for example, became the most important medical and educational centre in the Northern Province, so that it might be at par with Bo (Southern Province), and Kenema (Eastern Province). In fact its elevation was a conscious effort to create a functional balance between it and Makeni.

(c) Political factors are also responsible. Freetown is the largest town in the country, but had it not been for Creole domination in the past, many functions now in Freetown might have been found in other towns of the country. Similarly, Gbangbatok (1,155) has<sup>a</sup> pipe-borne water supply, electricity and<sup>an</sup> aerodrome because it is the Prime Minister's home.

(d) The functional and population dominance of the capital may also have some influence. When its data were included in finding the thresholds of the different variates, there was always a rise in the values (Table 1.2). This gives an impression that some points are absent from the "continuum of functional complexity" - a reflection of Freetown's high primacy and its lion's share of functional units.

TABLE 1.2

## POPULATION THRESHOLDS FOR VARIOUS FUNCTIONS

Functions	Thresholds	
	With Freetown	Without Freetown
Secondary Schools	7,300	4,600
Petrol Stations	5,400	3,900
Banks & Post Office		
Savings	4,400	3,500
Rest Houses	4,300	3,400
Medical Facilities	2,800	2,100
Primary Schools	2,300	1,900

(e) The mercurial growth of many diamond mining towns was not followed by any commensurate functional increase. Koidu, for example, is the seventh largest town, but the twelfth in the functional hierarchy. Many other diamond mining towns, (Barma, 5,280; Fomaia, 3,385; Gondama, 2861; Dorgboya, 1,550; Tokpombu, 1,524), have no central place functions. In the Mambolo rice growing area, one also finds towns with this characteristic.

(f) The absence of many variates in the functional table of Freetown's suburbs, led to a reduction in their functional totals, thus creating a disparity between their size and functions. This absence goes to confirm Freetown's importance as a functional centre for its suburbs. For as Berry concluded

"population: function imbalance is found...  
when a central place system lies within  
commuting range of some high order centre".<sup>7</sup>

When the  $r_{xy}$  value is calculated without Freetown and towns in the diamond mining and mechanical rice cultivation areas, a value of 0.876 showed that there is more correlation. Thus the impact of an expanding metropolitan area, and the development of new centres due to ephemeral forces, tend to reduce the validity of the central place hierarchy.

Functional Definition of Towns in Sierra Leone: Because of the discrepancies between the population of some towns and their functional complexity, it is clear that population alone is not an important index for calling a settlement a town; the functional characteristics of that settlement must also be considered. Because of this, some centres with over 1,000 people, but without one of the 25 functions are disregarded. Thus out of a total of 160 places with populations of over 1,000, 106 have at least one central place function - often a primary school or chiefdom administration. Since some centres like Mokele, Gbamgbama and Sinkunia have less than 1,000 people, but two or more central place functions, it has been decided that the lowest order urban centre in Sierra Leone should be a settlement with a population of over 1,000 and having two or more urban functions (Table 1.1). Hence there are 81 towns in Sierra Leone rather than the large figure of 160 which one is tempted to take after looking at the population data.

Conclusions:- The division of Sierra Leone towns into three groups (A,B,C) seems very generalized. This is evident from the analysis of the groups.

Group A includes both first order and second order centres. The only first order centre is Freetown and it seems to dominate the social, economic, recreational and administrative aspects of the country. Here Sierra Leone is unlike Nigeria with its regional capitals which are essentially first order centres. The second order towns (Bo and Kenema), are provincial capitals and have fairly large commercial areas - a reflection of their importance as marketing centres. Together with Makeni, the most important town in Group B, they are regional centres, of which two, Makeni and Bo, are tribal core-areas. The mean population for this group is 55,925 (the influence of the capital is evident).

Group B is essentially similar to what Green and others have called third order places. The towns are mostly district administrative centres, except for Koidu and Kissy. Although they generally show a relatively even scatter, there is a tendency towards clustering in the east (Fig 1.2). In this group, the central place hierarchy is invalidated, for it includes towns like Pujehun (2,034) and Koidu (11,706). The average population is 7,219 and the functional mean is 20.

Group C includes fourth order centres. They are agricultural collecting centres and the size of their spheres of influence is a function of accessibility to a road. Over the country as a whole, the influence of communication, especially rail, is very important in the siting of these towns (Fig. 1.2) and goes to confirm their importance as agricultural collecting centres within the sphere of influence of the larger ones.

The groups are broad, for within each there is a nesting pattern of relatively lower order trade areas within those of higher ones in the same group. Since inter-group nesting has been observed by such workers as Christaller and Losch, there is therefore both inter- and intra-group nesting. Thus Christaller was right when he stated that higher order places (or groups)

"offer more goods, have more establishments and business types, larger populations, tributary areas and tributary populations, do greater volumes of business, and are more widely spaced than lower order places. Low order places provide only low order goods to low order tributary areas; these low order goods are generally necessities requiring frequent purchasing with little consumer travel ... More specifically, central places fall into a hierarchy comprising discrete groups of centres. Centres of each higher order

'group perform....many functions of lower order centres plus a group of central functions that differentiates them from and sets them above the lower order. A consequence is the 'nesting' pattern of lower order trade areas within the trade area of higher order centres, plus a hierarchy of routes joining the centres".<sup>8</sup>

## 2. Occupational Structures

The first part of this chapter was concerned with investigations of the functional bases of the central place hierarchy in Sierra Leone and some conclusions about a functional grouping of our towns. Here we shall aim at a classification of urban centres in the country based on Table 18<sup>9</sup> in the Report of the 1963 Sierra Leone Census. In the first instance, towns are put into single categories by identifying the dominant occupational group. This simple classification or catalogue is followed by a more complex and sophisticated one wherein all the important functions in each town are considered.

In this analysis, dispersion graphs of each occupational group are constructed (Fig. 1.3), the National Means are calculated, and the Standard Deviations from the mean are found. One standard deviation above the mean (NA+SD) is considered the significant threshold in deciding whether a particular functional group is important in a certain locality. The second and third standard deviations above the mean are also worked out (Table 1.3) to help determine the degree of concentration of functions in towns.

**TABLE 1.3****AVERAGES AND STANDARD DEVIATIONS FOR SELECTED  
ACTIVITY GROUPS**

	Agriculture, Forestry and Fishing	Gas, Water and Electricity	Mining and Quarrying	Manufacturing	Construction	Commerce	Transport, Storage and Communications	Services
Average (NA)	33.4	1.1	14.1	10.8	4.8	18.8	5.2	12.2
SD	6.8	1.8	30.2	4.5	6.3	8.7	4.1	10.9
NA + SD	40.3	2.9	44.2	15.3	11.1	27.5	9.3	23.1
NA + 2SD	47.2	4.7	74.5	19.8	17.4	36.2	13.4	34.0
NA + 3SD	54.1	6.5	----	24.3	24.7	44.9	17.5	44.9

On this background, classes of towns were distinguished within each occupational group:

Agricultural, Forestry and Fishing Centres (NA + SD) = 40.2%

Towns in this category may be defined as those centres where over 40.2% of the working population (above ten years of age) are employed in either agriculture, forestry, or fishing, or in all of them. Such towns are Alikalia, Baoma, Foindu, Gandorhum, Gerehun, Jaiama (Nimi Koro), Kamakwie, Kailahun, Kasiri, Largo, Lungi, Kukuna, Mambolo, Mano, Masingbi, Panguma, Pendembu, Rokupr, Tombo and Tumbodu. That is, about a third of all places above 2,000 are important agricultural centres. Some of these towns, notably Gandorhun, Gerehun, Jaiama (Nimi Koro), and Masingbi,

have over 61% (NA + 2SD) of their employed population engaged in fishing, agriculture and forestry. In a few other towns like Alikalia, Kukuna and Tombo, more than 88.6% (NA + 3SD) of the people employed, work in this occupational group. In all of these localities, commerce is relatively unimportant and employs (except in the case of Rokupr, Pendembu, Mano, Kailahun and Foindu), less than a third of those working in fishing, forestry and agriculture (Table 1.4).

TABLE 1.4

RELATIVE IMPORTANCE OF COMMERCE AND FISHING, FORESTRY  
AND AGRICULTURE

Town	Percentage Employed	
	Fishing, Forestry and Agriculture	Commerce
Alikalia	94.7	2.5
Baoma	47.5	10.2
Foindu	45.0	16.0
Gandorhun	67.5	12.2
Gerehun	62.5	13.5
Kailahun	41.0	19.3
Jaiama (N.K.)	66.8	9.3
Kamakwie	47.1	6.2
Kasiri	44.8	5.9
Largo	42.3	1.2
Lungi	56.9	6.8
Kukuna	91.2	1.2
Mano	45.7	24.3
Masingbi	62.2	16.8
Panguma	41.3	12.8
Pendembu	42.0	20.9
Rokupr	45.2	19.1
Tombo	20.7	4.3
Tumbodu	44.9	10.8

Locationally (Fig. 1.4), most of these agricultural, farming and fishing centres are found in two almost parallel belts having a north-north-east to south-south-west alignment. They are essentially absent from the south where their non-existence is not a reflection of the absence of these primary activities, but a direct result of the fact that towns are few in the extreme south.

Knowledge of the main areas shows the predominance of one type of primary activity over the other two. In Kukuna for example, the high percentage is mainly due to agriculture, and the 3.7% of the employed people engaged in commerce concentrate on the selling of consumer goods and the purchase of agricultural products. Hence Kukuna may be regarded as an agricultural settlement. Similarly, Mambolo is an agricultural centre, and the 12.3% employed in manufacturing, process an agricultural product—rice. In Tombo, on the other hand, fishing is the most important activity, and the 4.3% employed in commerce are mainly concerned with the buying and selling of fish. 17.0% of Panguma's employed population work mainly in the saw mills, and although agriculture is important, forestry seems to be the most predominant activity. Consequently, Panguma like Alikalia is an important centre for forest activities.

The relative unimportance of this occupational group in centres such as Bo (9.8%), Freetown (2.7%), Kissy (4.5%), Lunsar (8.4%), Pepel (5.8%), and Wilberforce (1.7%), seems to show that as an urban centre grows in population and increases in functional complexity, agriculture, fishing and hunting are replaced by services, industries, and commerce. The three most important centres in this occupational group have populations just above 2,000.

According to international concepts, an urban centre is essentially a large settlement engaged mainly in secondary and tertiary activities. Consequently, the twenty towns with a predominance of primary activities, have no claim to urban status; they are merely overgrown villages; a reflection of the youthful state of urban development in the country.

Towns where Water, Gas and Electricity form an Important Occupational Group (NA + SD) = 2.9%

Since the use of gas is not widespread, gas being manufactured only in Freetown, we shall concentrate, in the analysis, on water and electricity. This group includes all towns where more than 2.9% of the working population are engaged in water and electricity undertakings. Only four towns - Lumley (4.7%), Lungi (13.2%), Magburaka (2.9%), and Port Loko (3.5%) - fulfill this condition. In Lumley, this percentage may be a direct result of the number of people employed in the collection,

purification and distribution of water in the town and at the Guma Valley Water Project. Contrarily, in Magburaka and Port Loko most of those working in this occupational group are employed by the electricity department. In Lungi, however, the 13.2% are mainly engaged in the collection and purification of water, and in the generation of electricity for the airport.

In all these towns, this occupational group is never the most important. In Lumley, for example, other more important groups are services (29.4%), commerce (18.5%), agriculture, forestry and fishing (16.5%), construction (16.3%) and manufacturing (8.6%). In Lungi, agriculture, forestry and fishing (50.9%) are more important, whereas in Magburaka, commerce (30.2%), services (23.5%), agriculture, forestry and fishing (17.7%), manufacturing (12.4%), transport, storage and communication (7.1%), and construction (5.7%), all employ more people. This is also the case at Port Loko, where commerce (25.2%), agriculture, forestry and fishing (20.0%), services (15.7%), manufacturing (14.3%), construction (14.1%) and transport, storage and communication (6.7%) are more important.

Since this occupational group never forms the most important sector in any of our towns, it could therefore be regarded as an ancillary activity that gives increased status to a town, but may never be the raison d'etre for town development.

Mining and Quarrying Centres (NA + SD) = 44.3%

Because of the unimportance of quarrying in Sierra Leone towns (except in Freetown, and Bo), we could designate towns in this group as mining towns. A mining centre may be defined as a large settlement having over 44.3% of its working population engaged in mining. On this basis, mining towns in Sierra Leone are Barma (53.4%), Fomaia (65.2%), Gondama (45.4%), Hangha (59.6%), Peyima (56.4%), Yengema (50.6%), Yormandu (48.1%), and Lunsar (51.8%). Except in Yormandu and Lunsar (Table 1.5), mining employs at least three times as many people as commerce, and in all these towns, it is the most important occupational group. Hence mining may be an important town-forming factor.

TABLE 1.5

## RELATIVE IMPORTANCE OF MINING AND COMMERCE

Town	Percentage Employed	
	Mining	Commerce
Barma	53.4	17.6
Fomaia	65.2	10.3
Gondama	45.4	10.1
Hangha	59.6	11.9
Peyima	56.4	14.1
Yengema	50.6	12.9
Yormandu	48.1	17.4
Lunsar	51.8	17.8

Mining settlements may be divided into two main groups: diamond mining centres and iron ore mining towns. In Barma, Fomaia, Gondama, Hangha and Peyima, alluvial diamond mining is predominant, whereas Yengema's status as a mining town is due to the fact that it is the headquarters of the Sierra Leone Selection Trust, and therefore has many mining camps. All the towns in which diamond mining is important are found in a triangular belt with apexes at Hangha, Gondama and Yormandu (Fig. 1.4). Lunsar is essentially an iron ore mining town; it is the creation of that activity.

Manufacturing Towns (NA + SD) = 15.3%

Centres with over 15% of their working population engaged in manufacturing are Blama (16.5%), Bo (15.6%), Kailahun (16.4%), Hastings (18.3%), Kabala (16.4%), Kenema (22.0%), Koidu (18.1%), Koindu (15.6%), Makeni (19.9%), Panguma (17.0%), Pujehun (17.1%), Segbwema (15.5%) and Wellington (17.5%). In all these towns, except Hastings and Panguma, commerce employs more people (Table 1.6). Even in Hastings and Panguma, manufacturing is not the most important activity; agriculture, forestry and fishing being the predominant occupational group.

Manufacturing in Sierra Leone towns ranges from simple domestic crafts to modern automated industries. In most of our manufacturing towns, domestic craft is paramount. At Blama, for example, we have the manufacture of miscellaneous

TABLE 1.6

## RELATIVE IMPORTANCE OF MANUFACTURING AND COMMERCE

Town	Percentage Employed	
	Manufacturing	Commerce
Blama	16.5	38.1
Bo	15.6	28.6
Hastings	18.3	16.1
Kailahun	16.4	19.3
Kabala	16.4	22.1
Kenema	22.0	31.0
Koidu	18.1	30.2
Koindu	15.6	39.2
Makeni	19.9	31.2
Panguma	17.0	12.8
Pujehun	17.1	20.1
Segbwema	15.5	24.0
Wellington	17.5	24.3

food products like foofoo, cassava bread, rice porridge and Kooskoos agidi. The production of all these food products is in tune with Blama's status as a commercial, transportation, storage, and communication centre. Manufacturing is only an ancillary to the other two related occupational classes.

Similarly, manufacturing in Koindu, Panguma, Pujehun, Kailahun and Segbwema concentrates on the production of miscellaneous food products and handicraft such as wood carving, cloth weaving and basket making. In Kabala and Makeni, it is mainly in the form of slaughtering, preparation and preservation of meat, and the dyeing of native and imported cloth, gara, wander and wax-work. Although the manufacture of food products is important in Bo, the construction of furniture and the manufac-

ture of aerated carbonated water and soft drinks are the main industrial establishments. In other words, there is a nice blend of modern manufacturing and domestic crafts. In Panguma, the saw mill is the most important manufacturing concern, and employs the bulk of those working in manufacturing. At Wellington, modern industries (a brewery, a distillery, a paint factory and a tobacco factory) are responsible for the 17.5% of the town's working population being employed in industries. The percentage will increase when the Sierra Leone Produce Marketing Board's Palm Kernel Mill and other industrial concerns come into operation in the next few years. Kenema's importance as a manufacturing centre is due to its forest industries notably timber milling and furniture making. The manufacture of soft drinks and miscellaneous food products are also important. The two most important manufacturing centres are Makeni (mainly concerned with domestic craft) and Kenema (mainly geared towards forest products).

Towns Where Construction is Important (NA + SD) = 11.1%

Centres where construction is concentrated may be defined as those localities where more than 11.0% of the gainfully employed population are engaged in construction: Goderich (27.5%), Kenema (12.4%), Lumley (16.3%), Murray Town (16.6%), Pepel (32.8%). Of all these towns, Pepel and Goderich are the most important since the concentration is more than three

standard deviations above the mean. This very high percentage in Pepel reflects the labour demands in the town in 1963, when the Milton Margai ore loading pier was under construction, and the Marampa-Pepel mineral railway was being renovated. At Goderich, one had the building of the Milton Margai Training College; a few residents of that town were also employed at the Guma Dam site. Lumley's 16.3% in 1963 was partly made up of those working at the Guma Dam, and partly of people constructing modern private residential buildings on the outskirts of Freetown. In Murray Town, one can relate this high percentage to the large number of people who were engaged in the construction of the Sierra Leone Grammar School, and the building of residential houses. At Port Loko, the renovation of the airfield explains the importance of construction, whereas in Kenema, the building boom reflecting the vigourousness of the diamond trade, was the main reason why 12.4% of the town's labour force was engaged in construction.

Locationally, all the towns (except Kenema and Port Loko) are rather close to Freetown (Fig. 1.4). The high percentage of construction in some suburbs of the capital partly points to the move by middle and upper class people to stay in the quieter and somewhat cooler suburban areas and drive daily to work. The contrasts between the old Victorian houses of parts of Freetown and the modern concrete ones of the suburbs are already very evident.

Commercial Towns: (NA + SD) = 27.5%

Centres with more than 27.4% of their population engaged in commerce are Blama (38.1%), Bo (28.6%), Bonthe (33.4%), Freetown (31.6%), Kenema (31.0%), Koidu (30.2%), Koindu (39.2%), Magburaka (30.2%), Makeni (31.2%), Moyamba (27.5%), Rotifunk (28.0%) and Waterloo (36.7%). Of these, the two most important are Waterloo and Blama. In Blama, Kenema and Koidu, the high percentages employed in commerce reflect the development of the diamond trade which has led to a mercurial increase in the numbers of hawkers and petty traders, of retail shops and petrol stations. Bo's commerce is heavily weighted in the trading sector, although the diamond trade is also fairly important. The predominance of commerce in Bonthe is essentially because it is the marketing centre for fish caught around Turner's Peninsula and in the Sherbro River. People from practically all sections of the country, notably the east and north, come to Bonthe to buy fish. Furthermore, the town is also an important collecting centre for agricultural produce: piassava, palm kernels, palm oil and rice from the mechanical rice cultivation scheme around Gbap. Retailing and petty trading area also viable commercial activities. Rotifunk and Waterloo, towns at heads of navigation, are important marketing and collecting centres: Rotifunk is the collecting centre for fish, and agricultural commodities produced in the Bumpe-Kukuli river basin. Retail trade is also important since goods brought

down from Freetown by rail are sold to people bringing fish and agricultural products to the town. Waterloo has a similar commercial structure due to the fact that it is not only an important marketing and retailing centre for places like Russell, Benguima and Matindi, but it is also a large nodal centre—hence its secondary status as a transport and communication centre. Freetown's outstanding monopoly of banking and other financial institutions, insurance and real estate, wholesale and retail, selling of automobiles and automobile parts, petroleum and oil distributions, and its attraction for hawkers and petty traders, is reflected in the fact that 31.6% of the active employed population are engaged in commerce. Makeni, a railway terminus, is the most important marketing, banking and collecting centre of the north. Consequently, retail trade is brisk and petty traders are very numerous. It is the only northern town with European commercial firms. Although Magburaka is not as important as Makeni, it, in the main, duplicates the commercial activities found in Makeni except for the absence of commercial firms. Furthermore, though not a rail terminus, it is an important bridging settlement. Moyamba is a district headquarters, a prominent railway station, and the centre for the production and sale of ginger; hence its commercial importance. Koindu is a frontier town famous for its domestic crafts and weekly fair. Consequently many people are either directly engaged in commerce or its

related activities. No wonder commerce, manufacturing, transport, storage and communications employ 62.7% of the working population.

Out of a total of twelve commercial towns, only three (Koindu, Koidu and Bonthe) are not on the railway; four (Koidu, Blama, Bo and Kenema) are either diamond mining centres or ports. Waterloo and Rotifunk, as previously stated, are towns at break-of-bulk. Bo, Bonthe, Freetown and Waterloo are also important transportation, storage and communication centres. In conclusion, we may state that commerce in all these localities is, to a large extent, a reflection of their importance as transportation nodes, and the nature of their hinterlands.

Towns where Communications, Storage and Transport are Important:  
(NA + SD) = 9.3%

Centres where more than 9.3% of the employed population are engaged in this occupational group are Bo (9.7%), Bonthe (12.4%), Freetown (18.2%), Hastings (13.0%), Kissy (19.1%), Waterloo (10.3%), and Wellington (14.2%). Of these towns, Freetown and Kissy are the most important having concentration values above three standard deviations from the mean. This high percentage in Freetown is a direct result of this town's status as the only port in the country; goods leaving or entering the country must pass through it. This town is also the headquarters of the Sierra Leone railway and has railway

repair yards in Clinetown close to the Quay. Furthermore inter-urban and intra-urban transports hinged on buses and taxis are also well developed. Consequently many people work as deck officers, engineer officers, deck ratings, engine-room ratings, drivers and firemen, drivers of motorized vehicles, guardsmen and brakemen (railway), inspectors and supervisors in railway transports, inspectors and supervisors in road transport, and traffic controllers and dispatchers. In addition, Freetown also has an internal and external telephone system. Some people are therefore employed as telephone operators and supervisors, and radio communication operators. No wonder 18.2% of the town's population are employed in transport, storage and communications. Unlike Freetown where transport, storage and communication seem to be of equal importance, in Kissy, storage seems to outweigh the other two. This is because of the oil installations of the different oil companies - Shell, Mobil Oil and Texaco. Since the Road Transport Workshop is in Kissy, transport is the second most important aspect of this occupational group. In Wellington, this sector is mainly geared to manufacturing industries in the Industrial Estate; manufacturing and transport, storage and communications employ about 31.6% of the working population of the town. At Hastings, the presence of an airport, coupled with the town's nodality, help account for its being an important communicational and transport centre. Similarly, Waterloo's 10.3% is because it is both a

nodal centre, and an important railway station. All the towns so far discussed are part of the Greater Freetown agglomeration: the area with the highest population density, with the largest number of cars, and the most industrialized part of the country. Outside this belt (Fig. 1.4), only Bonthe and Bo are important transport, storage and communication centres. Bo is at the centre of a nationwide road network, and also has an internal bus and taxi service; hence its communicational importance. Not only do launches ply between Bonthe and many mainland centres like Matru, Gbap, Sembahun, and Gbangbatoke, but launch repair yards are also found in the town. Furthermore, it has an internal and external telephone system, and a Post Office. Many people therefore work in transport and communications. The town is also an important storage centre for rice produced in the mechanical rice cultivation area of the Kittam estuary.

On the whole, it may be noted that transport, storage and communication are important occupational activities only in the coastal areas; the notable exception being Bo.

Service Towns: (NA + SD) = 23.1%

Centres with this percentage employed in services, are Bo (24.1%), Kissy (24.5%), Lumley (29.4%), Magburaka (23.5%), Murray Town (37.5%), Pujehun (30.7%), Sefadu (25.9%), and Wilberforce (61.7%). Towns in this group may be divided into two main classes: Localities where defence is important; and

centres where other services (administration, education, medicine and recreation) are outstanding.

Murray Town and Wilberforce (centres with the highest concentrations of services, are the important places for the army. In these towns, commerce is unimportant, and people employed in the army either as commissioned officers or privates, or special officers, form the bulk of the working population. The fact that the Juba Military Barracks are supposed to be part of Lumley explains why 29.4% of that town's population are employed in the services. In effect Murray Town, Wilberforce and Lumley may be regarded as military towns. In the other service towns, administration, education and medicine seem to be more important. In Kissy, two factors are responsible: the presence of the Senior Civil Service Quarters at "Dockyard", and the Low Cost Housing Estate largely occupied by Junior Civil Servants. Although Bo has lost its position as the headquarters of the Chief Commissioner of the Protectorate, it still has many people employed in administration. Now the expanding hospital, and the growing educational facilities in the town, make it an important servicing centre. In this town, however, commerce offers alternate employment facilities as in Magburaka. In Pujehun, administration and education employ more people than commerce. A reflection of both the limited number of alternate employment facilities, and the relative decline of commerce in the town. Commerce and services employ

about 50.8% of Pujehun's working population. If the percentage employed in primary activities (20.9) is included, we see that only 28.3% of Pujehun's population work in other occupational sectors. Since Sefadu is the headquarters of the Kono District, it has the residence of the administrators and their staff. This town and Koidu form a twin settlement with functional specialization: Sefadu in administration, and Koidu in commerce (30.2%).

Of the above service towns, six (Magburaka, Pujehun, Wilberforce, Kissy, Bo and Sefadu) are administrative centres, only two are not. Hence the relationship between towns and administration.

An examination of Fig. 1.4 shows the dominating influence of a zone fifty miles radius from Freetown. There is also a group of unclassified towns where no particular type of function is obstrusive enough.

The above classification has tried to put towns into single occupational or functional groups. This method is faulty since it may give an idea of high functional specialization in our towns. Furthermore, although a particular town may belong to two or more of the eight groups, it is rather difficult to get this impression of functional complexity from this analysis. To solve this problem, important functions in each town (a function's importance being defined in terms of the magnitude of its deviation above the mean), are grouped together.

Here the following abbreviations are used:

<u>Functional Group</u>	<u>Abbreviations</u>		
	+1SD	+2SD	+3SD
Agriculture	A	A2	A3
Electricity, Gas & Water	E	E2	E3
Mining & Quarrying	M	M2	M3
Manufacturing	Ma	Ma2	Ma3
Construction	C	C2	C3
Commerce	Co	Co2	Co3
Transport, Storage & Communications	T	T2	T3
Services	S	S2	S3

The towns are thus classified according to the above list of abbreviations. From Table 1.7, the multiple functions of towns becomes evident. Blama for example is a centre where commerce is the most important activity and manufacturing the second most prominent. Similarly Freetown is a communication town where a large number of people are employed in commerce.

Even this multiple functional analysis, is disadvantageous since it assumes that the eight occupational sectors are of equal importance in towns in the country. In addition it does not distinguish truly urban functions from rural ones. In effect, no clear distinction has been made between city-forming (basic) and city-serving (non-basic) functions. Here attempt will be made to solve these problems.

Many attempts have been made by various workers to

TABLE 1.7Functional Characteristics Of Centres (with over 2,000 people)WESTERN AREA

Freetown .....CoT3  
 Wilberforce .....S3  
 Goderich .....C3  
 Hastings .....MaT  
 Kissy .....CT3S  
 Lumley .....E2CS  
 Murray Town .....CTS2  
 Waterloo .....Co2  
 Wellington .....MaT2

SOUTHERN PROVINCE

Baoma .....A2  
 Bo .....MaCoT2S  
 Bonthe .....CoT2  
 Gerehun ....A  
 Gondama ....M  
 Manó .....A  
 Moyamba ....Co  
 Pujehun ....MaS  
 Rotifunk ...Co

NORTHERN PROVINCE

Alikalia .....A3  
 Lunsar .....M  
 Kabala .....Ma  
 Kamakwie .....A  
 Kasiri .....ACo  
 Kukuna .....A3  
 Lungi .....A3E3  
 Rokupr .....A

Magburaka ..ECoS  
 Tombo .....A3  
 Makeni .....Ma2Co  
 Pepel .....C3  
 Mambolo ....A3  
 Masingbi ...A3  
 Port Loko ..EC

EASTERN PROVINCE

Barma .....M  
 Blama .....MaCo2  
 Fomaia .....M  
 Foindu .....A  
 Gandorhun .....A3  
 Hangha .....M  
 Jaiama (N.K.) .....A3  
 Kailahun .....AMa  
 Kenema .....Ma2CCo  
 Koidu .....MaCo

Largo .....A  
 Koindu .....MaCo  
 Yengema ....M  
 Yormandu ...M  
 Panguma ....AMa  
 Pendembu ...A  
 Peyima .....M  
 Sefadu .....S  
 Segbwema ...Ma  
 Tumbodu ....A

establish methods for analysing the basic-non-basic concept of urban functions. Most of these methods are based on either very detailed census results, or comprehensive and well documented research material and up-to-date regional surveys of trade, consumption, migration and output. In contrast, censuses in most

underdeveloped countries, including Sierra Leone are very skeletal, and crude research material is not easily available. Consequently, most of the techniques so far developed will not be very useful in the Sierra Leone context where the occupational table (in the 1963 Census), is divided into only eight broad and amorphous groups. It is, for example, difficult to apply Homer Hoyt's six-step concept<sup>10</sup>. The techniques of Mattila and Thompson<sup>11</sup> for measuring the economic base of towns may be used for Sierra Leone since the crude data (employment figures) are available for the country. These workers put forward three indices:- The unadjusted index of local specialization which shows the importance of an occupational group to a locality relative to the importance of an occupational sector to the whole country. This index is calculated from the formula:

$$\frac{e_i}{e_t} \quad \text{where: } e_i \text{ is local industry employment}$$

$$\frac{e_i}{E_i} \quad e_t \text{ is local total employment}$$

$$\frac{E_i}{E_t} \text{ or } \frac{e_t}{E_t} \quad E_i \text{ is national industry employment}$$

$$\frac{E_i}{E_t} \quad E_t \text{ is national total employment}$$

The adjusted index of local specialization serves a similar function to the unadjusted one, but

"the national quantities are adjusted by subtracting the local economy from the national economy to eliminate the overlap"<sup>12</sup>.

This is calculated from the formula:

$$\frac{e_i}{e_t}$$

$$\frac{E_i - e_i}{E_t - e_t}$$

The index of surplus workers shows the importance of an activity in a particular town relative to the importance of the other occupational groups in that locality. Here this index (S) defined as the absolute number of 'surplus' workers in an occupational group is calculated thus:

$$S = \frac{e_i - e_t}{E_t} E_i \quad \text{or} \quad e_i - \frac{e_t}{E_t} E_i$$

Of the first two, the unadjusted form is preferred because it is easier to calculate, and the final result is as informative as the adjusted one. Since this unadjusted index not only ranks activities

"according to degree of local specialization, but in addition, .... serves as an indirect measure of 'surplus' workers relative to total local employment"<sup>13</sup>,

it may be used instead of the index of surplus workers. S will only be calculated after it is evident from the unadjusted index of local specialization that a particular locality has an index greater than one for any activity. The usual deduction being that a value greater than one shows

"that the locality has 'extra' workers, produces a 'surplus' of the good or service, and 'exports' this surplus"<sup>14</sup>.

It is only after it is established that a particular activity or industry is basic, that it becomes necessary to measure that degree of basicness by calculating the absolute number of 'surplus' workers presumably producing for 'export'.

Analysis of the unadjusted index of local specialization (Table 1.8), shows that in all centres with over 2,000 inhabitants, except Alikalia, Kukuna, and Tombo, agriculture, forestry and fishing is not a basic urban occupational group in Sierra Leone. Justifying this, is the fact that the mean unadjusted index for this sector is only 0.38. Calculations of S for these three centres showed that in Alikalia the 'surplus' workers are 106, in Kukuna 117, and in Tombo 211. Here these surpluses consist essentially of forest workers - forestry planters, rubber tappers, loggers, fire patrols, forest patrol guards.

A casual glance at Table 1.8, shows in the first instance that gas, water and electricity are basic activities; the unadjusted index being above one in 32 of the 60 localities included in this analysis. The degree of basicness ranges from 50.0 for Lungi to 1.5 for places like Blama, Koindu and Gandorhun. The mean urban figure of 4.6 shows how basic is this activity. In most of the centres where it is very basic, the agricultural et al. sector is unimportant. Lungi's case should not be regarded as an exception because agriculture is important in one section of the town, whereas electricity and

TABLE 1.8

## UNADJUSTED INDEX OF LOCAL SPECIALIZATION FOR LOCALITIES (2,000 + )

CENTRE	OCCUPATIONAL GROUP								TOTALS
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
1. Alikalia	1.2	-	0.04	0.2	0.1	0.3	0.1	0.3	2.4
2. Barma	0.6	-	6.6	0.8	0.3	1.5	0.5	1.0	11.3
3. Boama	0.2	-	10.6	0.1	0.4	2.9	1.0	0.7	16.3
4. Blama	0.3	1.5	0.4	3.4	1.0	6.3	4.5	3.6	21.0
5. Bo	0.01	3.5	0.2	3.1	5.0	4.7	4.8	7.6	28.9
6. Boajibu	0.3	-	6.8	2.1	0.5	3.2	1.5	2.0	16.4
7. Bonthe	0.2	1.0	0.4	2.5	1.5	6.6	6.2	6.8	25.2
8. Fomaia	0.2	2.0	13.0	1.0	0.1	1.7	0.1	0.03	18.1
9. Foindu	0.6	-	6.4	1.0	0.1	2.6	0.5	0.1	11.3
10. Freetown	0.003	10.0	0.06	2.4	4.5	6.2	9.1	7.3	39.6
11. Gandorhun	0.8	1.5	0.1	1.6	1.0	2.0	1.5	1.6	10.1
12. Gerehun	0.8	3.5	1.4	1.2	0.5	3.0	1.2	1.3	12.9
13. Goderich	0.5	4.0	0.02	1.2	13.5	3.4	2.1	1.4	26.1
14. Gondama	0.5	-	9.0	1.0	0.5	1.6	0.6	0.3	13.5
15. Hangha	0.2	0.4	10.9	1.4	0.4	2.2	1.1	0.6	17.2
16. Hastings	0.3	0.4	0.8	3.6	4.5	2.6	6.5	5.0	27.3
17. Jaiama (N.K)	0.9	1.5	0.1	1.4	0.3	1.5	1.3	2.0	9.0
18. Jaiama	0.4	1.0	8.4	1.4	0.4	2.1	0.5	1.4	15.6
19. Kabala	0.4	5.0	-	3.2	2.5	3.6	3.5	4.8	23.0
20. Kailahun	0.5	5.0	0.4	2.2	1.5	3.5	2.7	4.3	21.1
21. Kamakwie	0.6	1.0	0.2	2.0	0.5	4.2	3.1	3.1	14.7
22. Kambia	0.4	5.0	0.4	2.8	1.5	4.0	2.8	5.9	22.8
23. Kasiri	0.6	-	-	3.0	0.5	4.4	2.9	2.1	13.5
24. Kenema	0.1	5.0	0.2	4.3	6.0	6.1	2.2	5.4	29.3
25. Kissy	0.05	15.0	0.8	2.5	6.5	3.4	19.5	8.1	45.8
26. Koidu	0.2	10.0	2.0	3.6	2.0	6.0	4.1	3.7	31.6
27. Kukuna	1.2	-	0.2	0.4	0.2	0.5	0.5	0.3	3.3
28. Largo	0.5	0.4	8.0	0.1	0.1	1.0	0.5	0.3	10.9
29. Lumley	0.2	25.0	0.1	1.6	8.1	3.0	1.9	1.8	49.7
30. Lungi	0.7	50.0	-	1.5	-	1.9	3.3	2.1	58.6
31. Lunsar	0.1	10.0	10.0	1.5	1.5	2.9	1.3	2.2	29.9
32. Koindu	0.3	1.5	0.2	3.3	1.5	6.5	3.8	2.2	19.3
33. Magburaka	0.2	15.0	0.06	2.5	2.5	6.0	3.5	7.8	37.6
34. Makeni	0.2	10.0	0.04	3.8	3.5	6.1	3.5	3.8	30.9
35. Mambolo	1.0	-	-	2.4	0.5	1.1	5.5	1.2	11.7
36. Mano	0.6	0.5	-	2.3	1.0	4.0	3.8	2.3	14.5
37. Masingbi	0.8	-	0.4	1.8	0.3	2.8	1.4	2.2	9.7
38. Matru	0.4	2.0	-	2.5	2.5	4.4	3.1	6.4	21.3
39. Moyamba	0.4	15.0	0.02	2.2	1.0	4.6	2.1	7.5	32.8
40. MurrayTown	0.2	10.0	0.4	1.6	8.2	2.4	3.2	11.9	37.9
41. Panguma	0.5	1.5	2.4	3.5	1.5	2.1	4.2	1.6	17.3
42. Pendembu	0.5	3.0	0.02	2.9	4.5	3.6	3.6	1.8	19.8
43. Pepel	0.08	0.4	8.8	0.6	16.3	1.3	1.8	0.6	29.9
44. Peyima	0.2	-	11.2	1.6	0.5	2.3	0.6	0.6	17.0
45. Port Loko	0.3	15.0	0.1	2.8	7.0	4.2	3.3	5.2	37.9

TABLE 1.8 (Contd.)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	TOTALS
46. Pujehun	0.3	1.5	0.1	3.4	1.5	3.3	1.9	10.2	22.2
47. Rokupr	0.6	5.0	-	1.8	0.5	3.4	2.2	4.8	18.3
48. Rotifunk	0.4	2.5	-	2.7	1.0	4.6	3.9	5.0	20.1
49. Sedu	0.4	-	7.4	2.2	0.4	2.6	1.5	1.8	16.3
50. Sefadu	0.5	3.0	1.0	2.5	1.5	1.5	1.8	8.6	20.4
51. Segbwema	0.5	2.5	0.2	3.1	1.0	4.0	2.2	4.4	17.9
52. Sukudu	0.4	0.3	8.8	1.4	0.3	1.1	0.3	0.3	12.9
53. Tombo	1.2	-	-	0.4	0.05	0.6	0.3	0.2	2.8
54. Tumbodu	0.6	0.3	5.8	1.5	0.2	1.7	5.3	1.8	17.2
55. Waterloo	0.2	10.0	0.06	2.2	3.5	6.1	5.1	5.1	32.3
56. Wellington	0.2	10.0	0.2	3.5	4.5	4.5	7.0	3.8	33.2
57. Wilberforce	0.03	0.5	0.2	1.0	4.5	2.4	1.7	30.6	40.9
58. Yamandu	0.5	-	6.4	1.5	0.5	2.4	0.5	1.3	13.1
59. Yengema	0.2	1.0	10.2	1.5	1.5	2.1	2.8	1.7	20.5
60. Yormandu	0.3	0.5	9.6	0.2	0.5	2.9	0.5	0.7	15.5
$\sum X$	22.9	276.3	172.1	121.6	137.1	196.3	160.6	231.6	
$\sum X/N$	0.38	4.6	2.8	2.0	2.2	3.3	2.7	3.9	

NOTE:

- (a) = Agriculture, Forestry and Fishing  
(b) = Gas, Water and Electricity  
(c) = Mining and Quarrying  
(d) = Manufacturing  
(e) = Construction  
(f) = Commerce  
(g) = Transport & Communication  
(h) = Services.

water are predominant in the other (the airport area). The calculation of S for selected towns - Lungi (75), Lumley (32), Kissy (84), Freetown (776), Matru (1), and Panguma (1) - also confirms the high basicness of this activity. But since electricity and water are not (except in the Freetown Peninsula) 'exported' to contiguous rural areas, the high basicness of this occupational group may be a reflection of its employment potential; its ability to attract people to towns. In Kissy for example, out of a total of 92 employed in this sector, 84 possibly came from outside the town. Though only a quasi-basic activity, electricity and water are attractive fields of employment for people from rural areas and depressed sections of the country.

The mining and quarrying sector seems to be another basic activity, although it is less basic than that discussed above since only 21 localities have an unadjusted index above one. In this group, the indices include 13.0 for Fomaia, 10.4 for Lunsar, 9.0 for Gondama, and 1.4 for Gerehun. These high indices are due to the influx of people to the diamond and iron ore mining areas. The mean, for this sector, of 2.8 mirrors general movements to the mining areas. In fact, mining seems to be a more potent city-forming activity than electricity and water. This relatively low index for mining is because it is an activity that influences all settlements in certain regions resulting in the production of new patterns. Conversely, the

electricity and water sector is more concentrated in a few important towns.

Although modern manufacturing is centred in a few towns like Freetown, Wellington, Bo and Kenema, domestic crafts are rather widespread. Confirming this, is the fact that 47 centres out of a total of 60, have unadjusted indices above one and the urban mean is 2.0.

Construction is only a basic activity in 26 localities. But because of the high degrees of basicness in these localities, for example Goderich (13.5), Lumley (8.1), and Pepel (16.3), the mean index for centres above 2,000 is 2.2. This is even higher than for manufacturing.

One of the most interesting results from this analysis is that concerning commerce. As would be expected, 56 of the 60 localities considered have unadjusted indices of over 1.0 and the mean for all the sixty localities is 3.3. In effect, this means that about two out of every three people working in commerce in towns serve rural areas. Variations from centre to centre are, however, expected (Table 1.9).

TABLE 1.9

'SURPLUS' POPULATION IN COMMERCE FOR SELECTED LOCALITIES

Town	Total in Commerce	Surplus
Baoma	120	51
Blama	594	504
Bonthe	508	418
Kamakwie	256	198
Koindu	284	241
Sukudu	121	25

As expected, communication, transport and storage <sup>FORM</sup> from an important basic activity group in towns; 46 towns have indices above one. The mean of 2.7 shows that for every three people engaged in communication, transport and storage in localities above 2,000, about two serve rural areas. The concentration of this sector in towns is natural since urban centres are the communicational and commercial hubs of the country.

Services are also an important basic activity with 46 centres having an unadjusted index of local specialization above one, with the mean of 2.9 for all localities included in this analysis.

From the above, it is now clear that besides the first group — agriculture, forestry, and fishing — all the other occupational sectors, are essentially basic activities. In other words, they are capable of providing

"the export surplus which generates the net income stream upon which the economic well-being of the area's inhabitants is founded".<sup>15</sup>

Subsequent analysis will exclude the agricultural occupational group.

Some occupations have a high mean basicness but are found in only a few towns whereas other occupations are more widespread but have relatively low mean unadjusted indices. To allow for this, a simple weighting system was devised whereby

if an occupational group was important in fewer than 10 localities it was allocated one point, if important in 11-20 localities it was allocated two points and so on. The mean unadjusted index of local specialization for each occupational group was then multiplied by the appropriate number of points (Table 1.10).

TABLE 1.10

DEGREE OF BASICNESS OF OCCUPATIONAL GROUPS FOR LOCALITIES (2,000+)

Group	Unadjusted Index (a)	No. of centres (b)	No. of Points (c)	(a)(c)
Agriculture, etc.	0.38	3	1	0.4
Water, etc.	4.6	32	4	17.4
Mining & Quarrying	2.8	21	3	8.4
Manufacturing	2.0	47	5	10.0
Construction	2.2	26	3	6.6
Commerce	3.3	56	6	19.6
Transport, etc.	2.7	46	5	13.5
Services	3.9	46	5	19.5

The result gives rise to a hierarchy of urban occupational activities. Commerce is the most important, closely followed by services, then water, gas and electricity. Next we have transport, storage and communications, then manufacturing, mining and quarrying, construction and finally agriculture, forestry and fishing.

A functional classification of Localities with over 2,000 people:

This final classification will include a consideration of the total number of functional units in different urban centres (column two of Table 1.1), the sum of the unadjusted indices of

local specialization for each locality, and the degree of concentration of occupational groups in individual towns based on standard deviations above the mean (that is, Table 1.7).

In Table 1.7 are substituted the values in column five of Table 1.10. Where there is a concentration of 2SD the values are doubled, and for 3SD they are tripled:

	+1SD	+2SD	+3SD
Agriculture, etc.	0.4	0.8	1.2
Construction	6.6	13.2	19.8
Mining & Quarrying	8.4	16.8	25.2
Manufacturing	10.0	20.0	30.0
Transport, etc.	13.5	27.0	40.5
Gas etc.	17.4	34.8	52.2
Services	19.5	39.0	58.5
Commerce	19.6	39.2	58.8

To the results obtained, were added those of total basicness for each town (see Table 1.8). Furthermore, the sums of functional units in each town (Column two of Table 1.1) were added to the above two figures (Table 1.11).

The calculation of Spearman's Rank Correlation Coefficient between columns (x) and (d) of Table 1.11 showed that there was only a limited degree of correlation since the coefficient of 0.496 with 57 degrees of freedom was only significant at the 0.0005% level. This low degree of correlation to some extent reflects the influence of Freetown on its suburbs (Wilberforce, Lumley, Goderich, Murray Town, Kissy, Hastings and Wellington). Although most of these are relatively small centres, they have high functional indices. When Freetown and its suburbs were considered as a single conurbation and the rank correlation

TABLE 1. 11

FUNCTIONAL CLASSIFICATION OF CENTRES ABOVE 2,000 POPULATION

Centre	Population (x)	Modified Table 1.7 (a)	No of Functional Units (b)	Index of Basicness (c)	Sum of (a)(b)(c) =
Freetown	127,917	60.1	131	39.6	230.7
Bo	26,613	76.1	50	28.9	155.0
Kenema	13,246	46.2	34	29.3	109.5
Kissy	13,143	66.6	19	45.8	131.9
Makeni	12,304	39.6	26	30.9	96.5
Lunsar	12,132	8.4	13	29.9	51.3
Koidu	11,706	29.6	18	31.6	63.0
Yengema	7,313	8.4	11	20.5	39.9
Wilberforce	6,950	58.5	12	40.9	111.4
Magburaka	6,371	56.5	26	37.6	120.1
Segbwema	6,258	10.0	15	17.9	42.9
Bonthe	6,230	46.6	21	25.2	92.8
Jaiama (N.Y)	6,064	--	3	15.6	18.6
Port Loko	5,809	24.0	19	37.9	80.9
Yormandu	5,469	8.4	1	15.5	24.9
Kailahun	5,419	10.0	16	21.1	47.1
Barma	5,280	8.4	--	11.3	19.7
Blama	5,073	49.2	15	21.0	85.2
Wellington	4,958	37.0	9	33.2	79.2
Peyima	4,625	8.4.	1	17.0	26.4
Kabala	4,610	10.0	17	23.0	40.0
Moyamba	4,564	19.6	20	32.8	72.4
Murray Town	4,564	59.1	10	37.9	107.0
Boajibu	4,33	--	4	16.4	20.4
Rokupr	4,151	0.4	9	18.3	27.7
Pepel	3,793	19.8	5	29.9	54.7
Kambia	3,700	--	13	22.8	35.8
Jaiama (N.K.)	3,616	1.2	8	9.0	18.2
Mambolo	3,595	1.2	4	11.7	16.9
Kamakwie	3,572	0.4	7	14.7	22.1
Rotifunk	3,520	19.6	7	20.1	46.7
Fomaia	3,385	8.4	-	18.1	26.5
Waterloo	3,215	39.2	9	32.3	80.5
Panguma	3,100	10.4	6	17.3	33.7

TABLE 1. 11 --- (contd.)

Centre	(x)	(a)	(b)	(c)	(d)
Sukudu	3,097	-	1	12.3	13.9
Hastings	3,022	23.5	8	27.3	58.8
Tombudu	2,955	0.4	1	17.2	18.6
Largo	2,940	0.4	1	10.9	12.3
Yamandu	2,910	--	3	13.1	16.1
Matru	2,909	--	12	21.3	33.3
Hangha	2,895	8.4	3	17.2	28.6
Gondama	2,861	8.4	-	13.5	21.9
Tombo	2,837	1.2	1	2.8	5.0
Baoma	2,722	8.4	4	16.3	28.7
Pendembu	2,696	0.4	9	19.8	29.2
Kasiri	2,585	20.0	2	13.5	35.5
Foindu	2,559	0.4	1	11.3	12.7
Sedu	2,507	--	2	16.3	18.3
Masingbi	2,425	1.2	2	9.7	12.9
Mano	2,286	0.4	9	14.5	23.9
Gerehun	2,266	1.2	2	12.9	16.1
Gandorhun	2,207	1.2	3	10.1	14.3
Lungi	2,170	53.5	10	58.6	122.1
Koindu	2,130	29.6	2	19.3	50.9
Alikalia	2,118	1.2	-	2.4	3.6
Kailahun	2,038	1.2	3	3.3	7.5
Pujehun	2,034	29.5	17	22.2	68.7
Goderich	2,034	19.8	17	26.1	62.9
Lumley	2,015	60.9	7	49.7	117.6

coefficient was re-calculated, the result was a coefficient of 0.574 with 49 degrees of freedom. In addition to this influence of an expanding metropolis on its suburbs, the influence of mining was also observed. When the mining centres (places with more than one Standard Deviation above the mean of concentration) were excluded and the rank correlation re-calculated on this basis, the result was a coefficient of 0.595 with 39 degrees of freedom. Correlation was still only significant at the 0.0005% level.

Hence it is evident that because of the recent nature of urbanization in the country, and the importance of mining and agriculture, there is no very evident correlation between the population size of an urban centre and its functional importance. This functional classification is also hampered by the fact that the occupational table did not include centres with under 2,000 people. In spite of this, we could tentatively define an urban centre in the country as a place with at least one thousand people, and having a minimum of two central place functions (Table 1.1). Furthermore, agriculture should be unimportant whereas services and commerce should be predominant. This low population threshold enables us to examine the processes of urbanization since it includes large villages, small centres with many urban functions, large localities with few basic activities, and important commercial and administrative towns in the country.

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CHAPTER 2THE GROWTH AND DISTRIBUTION OF TOWNS

Although urbanization is incipient and large urban centres are very few, a comparison of Figs. 2.1 and 2.2 shows that whilst many towns have grown, a few having grown very fast, some of the smaller and average ones have shown marked decline. These trends are understandable since urban areas are organisms characterized by mutability; morphological and demographic stagnations are very uncommon features of towns. Melvin has categorized settlements in West Africa into: compound, sub-village, village, town and city.

"Each of these categories becomes functionally more complex and larger in size in the order mentioned". 1

There is also the constant movement of places up and down the rank-size graph - former villages like Koidu becoming large towns, whereas former large centres like Taiama are now small unimportant settlements.

In this chapter we shall concentrate on:-

1. The Traditional Pattern.
2. Factors Changing the Traditional Pattern.
3. The Resultant Patterns:
  - (a) The 1927 network
  - (b) Factors modifying the 1927 pattern
  - (c) The 1963 pattern
4. Comparison of the 1927 and 1963 Patterns:
  - (a) Distribution of towns
  - (b) The urban-size hierarchy

### 1. The Traditional Pattern

Historians tell us that Sierra Leone was settled by a series of waves of migrations from the savanna regions of the north and north-west. The "colonization" of the country has scarcely stopped, as the attraction of diamonds led to a new phase of migration from neighbouring countries. Since the development of large, mature urban centres presupposes a region which, inter alia, has been long settled and has experienced political and social stability, large scale urbanization in Sierra Leone is very young; being generally associated with the colonial period. This is generally the case in the forested regions of West Africa. As Gamble puts it,

"in pre-colonial times large towns in West Africa were comparatively few, and there was nothing comparable with the urban life which has grown up in the river valleys of the Tigris, Euphrates, Indus and the Nile in the Near and Middle East"<sup>2</sup>

It would be erroneous, however, to feel that there were no fairly large settlements in the country for many early visitors to Sierra Leone noticed large centres: Fernandes and Pereira in the early sixteenth century, observed along the Bullom shore a town they called Manguy (now Mange) having about 1,000 inhabitants; Laing writing at a later date (about 1825) also noticed the presence of important centres such as Ma Bung (Mabang) which

"is of considerable size, standing upon

nearly a square half mile of ground, and is better built than the generality of Timanee (i.e. Temne) towns; it may contain about 2,500 inhabitants, in the proportion of three females to one male and two children to one adult"<sup>3</sup>.

In addition, he also mentions a town, Ma Yosso, which

"is the principal town on the eastern frontiers of the Timanee country.....; it is considerably larger than Ma Bung"<sup>4</sup>.

Laing also saw a few large settlements in Koranko land. Kamato for example had about 1,000 inhabitants and was

"built upon the pinnacle of a hill, and quite inaccessible, except by its two entrances"<sup>5</sup>.

Furthermore, in Sulima territory he noticed large places like Sangooia (Sinkunia), Moosaiah (Musaia), and Falaba, a town

"which covers a large extent of ground in a beautiful valley, hemmed in on all sides by gentle acclivities"<sup>6</sup>.

As he puts it,

"the principal towns belonging to the Soolimas are all situated in Kooranko; these are Falaba the capital, Sangooia, Semba, Moosaiah and Kondodogroe, containing in all about 25,000 souls"<sup>7</sup>.

In the eastern sections of the country, the existence of some important centres may be inferred from statements like:

"no chief as we know then ruled in Luawa; but every town with its neighbouring villages was ruled over by its headman ..... Towns therefore were set more widely apart and the people were gathered more in these towns where they could protect each other more easily than now"<sup>8</sup>.

Although a few towns (settlements which might not today be regarded as towns) were scattered all over the country, documentary evidence shows that urban centres (functionally and morphologically) were lacking. The factors which were to generate them were absent in pre-colonial Sierra Leone. The traditional type of settlement was, in the main, clusters of hamlets around a large village which was the headquarters of the chief. In Mendeland for example,

"a traditional view is that the original settlement ..... was on peaceful lines ..... (and) was on rather sparse ..... lines"<sup>9</sup>.

Little concludes that

"the picture which emerges ....(was) of a number of villages each with its outlying hamlets, subsisting on a combination of hunting and primitive agriculture"<sup>10</sup>.

It was only after 1890 when the Mende came in contact with European influences that

"more attention was given to agricultural than to war-like pursuits"<sup>11</sup>.

The beginning of settled life may be regarded as the inception of urbanization among the Mende.

This pattern of settlement was also common among the Temne, Koranko and Yalunka areas of the north and north-west. Chiefs were not heads of chiefdoms but of large villages (which Laing calls towns) since it was assumed that being head of a large village, logically made one lord over the surrounding hamlets. In Temneland, for example, Sedi Banki was

"the chief of a town called Massama, on the left bank of the Scarcies".<sup>12</sup>

The size of the head village, was usually proportional to the chief's sphere of influence.

The above settlement pattern was the result of the socio-political atmosphere of that time; the town being to the natives of a particular area a sort of acropolis where they felt themselves protected during wars. Since the large central village gave security to the inhabitants of its smaller villages, the villagers had to show allegiance to the ruler of that settlement by the payment of protection fees. As Laing observed in the case of Falaba and its environs:

"the inhabitants ... are bound by the custom of the country, to give the king three days' labour a year, one to sow his rice, another to weed, and a third to reap it".<sup>13</sup>

This custom of working for the king or chief was, until very recently, prevalent all over the country. The chiefs were able to make two large farms a year because of the help they got from their subjects. With this, and with the gifts they received from travellers, they normally became opulent and powerful.

The large villages which were the social hubs for the surrounding country, were founded in connection with (i) warfare or (ii) fishing and hunting.

(i) Warfare: Before the colonial period, hereditary chieftaincy was not very important; for powerful warriors usually became chiefs of their country. When this happened,

instead of transferring to the former chiefdom headquarters, they often made their village the new capital. Because of a warrior's military prowess and charisma, people from the surrounding settlements often migrated to the new capital; by this process of in-migration, the new "central place" grew. In the Luawa chiefdom, for example, when Kailundu became chief of the Luawa confederacy, he "made Sahabu his capital and called it Kailahun".<sup>14</sup> With Kailahun established as the main town in the confederacy, Kailundu advised the people to build bigger towns for their own security. Thus, concludes Hollins, "Baoma was now built, and Giehun extended".<sup>15</sup> Similarly, Little records that among the Mende, certain towns sometimes become paramount for the same reasons. Here Panguma, Bumpe, Mongarai and Tikonko are typical.

Examples of towns founded by warriors are not only limited to Mendeland; they are found all over the country. Falaba in the north, for example, was "stabilized and made the centre of Yalunkaland by Manka Suri".<sup>16</sup>

(ii) Hunting & Fishing: Some people have tended to feel that warfare was the only *raison d'être* for town development in pre-colonial times. Gamble, for example, states that

"in pre-colonial times large towns in West Africa were comparatively few ..... such towns as there were, were generally inland centres where powerful rulers had established themselves"<sup>2</sup>.

This seems to be an unwarrantable generalization. What we may say is that warfare may have been an important catalyst in the

growth of many already established settlements. One other potent factor for town development in the country was gaming.

"Many accounts relating to the founding of present towns in (Sierra Leone) describe how they originated out of the killing of an elephant by a hunter and his party. There, whilst killing the animal and consuming its flesh, they would erect a few temporary huts ..... The reputation of the kill would attract outsiders; more huts would be set up, and the settlement grew into a large village under the leadership of the original pioneer ..... On the river banks the situation was repeated. Fishermen seeking fresh and more profitable grounds would naturally settle where they found the fish plentiful and in the same way, the more skillful and successful communities would attract other settlers to them".<sup>17</sup>

These villages sometimes grew at a faster rate if they became military centres -

"the original hunting, fishing and agricultural settlements were now transformed into primitive fortresses. Each parent village or small village of any strategic value for military or administrative purposes was strongly stockaded".<sup>18</sup>

## (2) Factors changing the Traditional Pattern.

The traditional settlement pattern was gradually altered when "the spirit of the new age in the outside world had reached this land of Sierra Leone".<sup>19</sup> This spirit, epitomized by the growth of overseas trade, and the establishment and spread of colonial rule, led to the development of large settlements. These

"began to come into existence around administrative posts, traders taking advantage of the security thus offered, and these in turn often become centres of networks of roads and collection points for local produce".<sup>20</sup>

The present distribution of towns reflects the interaction of many factors including the slave trade, overseas trade in general, the spread of administration and the development of efficient communication systems.

The first major type of intercourse between Sierra Leone and Europe was the buying of slaves by people like Hawkins. Consequently, slave forts (e.g. Bunce Island), and large European and native slave centres (e.g. Port Loko, Shenge, and York Island) developed at estuaries (notably that of the Sierra Leone River) and along the coast. Hawkins stated that during one of his slave raids on coastal settlement he "assaulted a town of eight thousand inhabitants".<sup>20</sup> Another visitor John Sarracoll (in 1586) noticed

"on the south-east side of the harbour ..... (a settlement with) about two hundred houses, and walled about with mighty great trees and stakes so thick than a rat could hardly get in or out".<sup>21</sup>

Towns not only developed because of flourishing slave trade, but its abolition led to the founding of Freetown and other towns including Waterloo, Lumley, and Aberdeen. One peculiarity of such towns is that unless other activities are introduced into them they tend to decline after some years. This may help explain why many former slave settlements such as Kent, Tombo and York have shown such marked decline.

Although there was trade between the Niger watershed and north-western Sierra Leone even as early as 1820, in the country as a whole, the beginning of the colonial era was the force which broke the vicious cycle of producing mainly for home consumption. The demand for tropical products - dyes, palm oil, etc. - in Europe stimulated agriculture in the interior (especially in the south, west and south-east), and resulted in the development of ports like Sulima, Mano Salija, and Bonthe. In addition, towns also grew at the highest navigable points of rivers where a break-of-bulk was important. Bandajuma on the Mano, Pujehun on the Waanje, Matru on the Jong, Port Loko on the Rokel, Mange on the Little Scarcies and Kambia on the Great Scarcies are typical examples. From these centres, produce were sent to one of the ports for export to Britain. These towns may have also flourished because they were protected by the trader's gun and later by the Colony Administrators. Inland, the institution of commercial agriculture led to the growth of agricultural collecting settlements (Bwedu, Dia, Tikonko, Kenema, Bo and Hangha).

This urban pattern was made more complex in some sections and simplified in others by the construction of the railway (1896-1916) which passes through the main agricultural areas of Sierra Leone. For the first time the interior of Sierra Leone had a quick and direct link with the coast - the more civilized, and more politically stable section of the country. One can imagine how this led to the breakdown of social traditions, the change of customs, and a new type of urban pattern.

Since all cities are dependent on efficient external transportation, this rail factor destroyed "the symmetry of the central-place arrangement"<sup>22</sup>, and resulted in (i) the gravitation of existing towns to the railway - Songo, Moyamba, Bo, Waterloo, Yonibana, Makeni; (ii) the development of new marketing and collecting centres like Yoyema and Ronietta; (iii) the growth and fast expansion of former villages whose economic life became revitalized - Mano, Makeni, Magburaka; and (iv) the stagnation or decline of towns at heads of navigation. Thus when the railway was built

"towns grew up to meet particular needs .... Along the routes, villages, which often marked stages in construction, were revitalized. Trade centres grew up along the lines, particularly at the rail heads."<sup>2</sup>

Moreover

"settlements at the highest navigable points of rivers .... which were important in the early days of colonization, have tended to decline or stagnate as ... road and rail communications developed".<sup>2</sup>

With the railway, the urban pattern became complex in the agricultural areas, but simpler in others.

The proclamation of a Protectorate over the hinterland of the country in 1896 was the beginning of district and provincial administration in the country. This either reassured the urban status of certain settlements or helped elevate some villages. When the provinces and districts were delimited

for example, many towns (Kwelu, Karene, Falaba, Pendembu and Bandajuma) were made district administrative centres; this might have helped their early growth. Furthermore, in the middle of the 1920's, Port Loko, Panguma, Kenema, Pujehun, Sumbuya, Sembehun, and Zimi (Makpele) had also become important district centres and their growth was accelerated.

In 1927, the urban network seems to have been not only the result of purely physical fixation elements, but also the interaction of all these discussed agents. Mining and road transport were unimportant and had little or no effect on the 1927 urban settlement pattern (Fig. 2.1).

### 3. The Resultant Patterns

(a) Analysis of the 1927 network<sup>23</sup>: By 1927, urbanization was evident, and most towns were ports, agricultural collecting centres and towns at heads of navigation. Some, however, were administrative centres, but since central administration was then in its infancy, we may conclude that it was not a prominent factor in determining the functional importance of a place. We are therefore more concerned, in this analysis, with agricultural and trading centres. Because of the unavailability of data to determine the amount of retail trade at that particular period, concentration is on demographic-spatial relations. For as Browning and Gibbs observe,

"there are reasons to believe that they (demographic and spatial relations) ... partially reflect and

condition functional relations amongst (towns)".<sup>24</sup>

This is especially true in purely agricultural areas as in Sierra Leone where the bulk of towns in 1927 had less than 2,000 people (Fig. 2.1). The few with more inhabitants were mainly on the coast and along the railway. Actually, the distribution of urban centres in 1927, shows a pattern which is rational in the light of the socio-economic and anthropological conditions prevailing in the country at that time. Consequently, towns were not evenly distributed. Calculations of the mean distances between towns and their nearest neighbours for 1927 show that in Sierra Leone, some sections, A, have mean nearest neighbour distances of about 16 miles, whereas in some others, B, it is 5 miles, and in the north and extreme south, C, it is around 60 miles (Fig. 2.3). From the formula <sup>25</sup>  $Hd = 1.11 \sqrt{\frac{A}{N}}$  (where Hd is the hypothetical distance, A the area of the country in square miles, and N the number of towns), it may be calculated that the hypothetical distance between towns in 1927 was 16.9 miles.

Table 2.1 shows that it is only in A that the hypothetical mean distance nearly approximates to the actual one. In region B however, the observed mean distance is less than the hypothetical whereas in C, it is more than the calculated Hd value.

Generally,

"if the actual distance equalled the hypothetical, there would be no concentration of ... (towns); accordingly, when the actual distance is expressed as

TABLE 2.1

ACTUAL & HYPOTHETICAL MEAN DISTANCE BETWEEN TOWNS, 1927 AND 1963

Region	No. of Towns		Actual Mean Distance between Towns and Nearest Towns (in miles)		Hypothetical Mean Distance Under Conditions of an Even Spatial Distribution of Towns (in miles)		Actual Mean Distance as Per Cent of Hypothetical	
	1927	1963	1927	1963	1927	1963	1927	1963
Sierra Leone	111	160	=	=	16.9	14.5	=	=
A	24	30	14-18	14-18	16.9	14.5	94.7	110.4
B	83	117	4-6	4-6	16.9	14.5	29.6	34.5
C	4	10	55-60	55-60	16.9	14.5	355.0	414.0
D	=	3	=	70	=	14.5	=	483.0

(Area of the whole country is 27,925 sq.miles)

a per cent of the hypothetical ... , the resulting figure is a measure of the extent to which the ... towns are dispersed rather than concentrated, with values approaching 0.0 indicating minimum dispersion and values approaching 100.0 indicating maximum dispersion".25.

Several conclusions may be made regarding the spacing of urban centres in 1927. Firstly, in a belt stretching east-west across the country, towns were relatively evenly spaced; the actual distance between them being close to the hypothetical one. For Browning and Gibbs have noted that

"if a regularity exists, the distance separating each ... (town) from its nearest neighbour would be close to the mean distance for all the ... (towns) in the country".27

Many factors seem to explain this even spacing: As the railway generally passed through this belt, its importance as an element of town fixation and growth, might help explain this logical spacing. In the west, for example, towns like Songo, Rotifunk, Moyamba and Mano on or close to the railway were evenly spaced and in a linear pattern. Around the railway towns such as Bo, one had secondary equidistant linear patterns which were, in the main, perpendicular to the urban zone along the rail. This pattern fits in with Ullman's observation that

"in many cases central places are strung at short intervals along an important transport route, and their tributary areas do not approximate the ideal circular or hexagonal shape but are elongated at right angles to the main transport line".28

It is also in this region that the majority of towns at heads of navigation were found. Here the fairly even spacing of the rivers, in the main, explains the ensuing pattern which was epitomized in the area around Kambia where the average spacing was near the national mean. The fact that the spacing of these towns was similar to those along the rail may be due to central place forces.

Secondly, in the extreme east and south-east, there was a marked concentration of towns with average distances between them being about five miles. Most of these towns were small (similar to Christaller's Marktort); the few large ones being along the railway. This was possibly because they were local collecting centres of agricultural commodities, since the different areas with this type of pattern are important agricultural regions. Another area with such a cluster is centred on Falaba and Bafo-dea in the northern livestock district. In contrast, the eastern and south-western ones are associated with the main areas of oil palm, coffee and cocoa production.

Perhaps historical factors may also help explain these eastern and south-western clusters. Little, writing about this section of the country, the area mainly inhabited by Mende and related tribal groups, observed that as a Mende village expanded, some of its inhabitants would move to another site and found a new village with its out-lying hamlets. This process of settlement fission resulted in an increase in the number of large

villages. A young, ambitious warrior (a Kailundu, a Nyagua or a Ndawa) often founded a town or large village, which was often named after him. Hence we have Kailahun (after Kailundu), Kabala (after Bala). With the introduction of commercial agriculture, these settlements became centres for agricultural products, and have grown; the rate of growth seems to be directly related to the size of their hinterlands. As Kar observed for the region around Calcutta, the location of these first order urban centres

"is invariably conditioned by a rich agricultural area around, a nodal situation or a favourable water-way".<sup>29</sup>

Thirdly, in the extreme north of the country, towns were very few and in the far south absent. The absence of towns in the south is partly due to the presence of swamps, mangrove forest and infertile sandy soils. Thus settlements of any appreciable size did not develop except at heads of navigation - areas which were, in the main, more suitable for town fixation. These towns (Sumbuya, Pujehun, Bandajuma), became important for the collection, from more southern negative regions, of products which were eventually sent by launch to Bonthe. In essence, the northern paucity of towns may be explained partly in terms of relief and partly in terms of human activities. Even a casual glance at a relief map shows that the north-eastern frontier is mountainous. These mountains not only inhibit settlement development generally, but also militate against urban development.

The absence of towns in this area contrasted with the large number on the interior plains. This northern part was also unsuitable for the large scale growing of cash crops. Even today, when one finds agricultural experimentation all over the country, the north is still a region of livestock farming and, in common with other livestock regions of Africa, towns were very few. The settlement pattern was essentially dispersed with secondary nucleation; areas of secondary nucleation serving as collecting centres. An impression of the dispersed nature of towns in this area may be obtained if one imagines that north of Makeni, there were no towns within fifty-five miles.

Actually, the mean distances between large towns and their nearest neighbours were, on the whole, regular (Table 2.2); it was only in the case of Port Loko that it exceeded 8.5 miles, but in most other cases, it was between 4.0 and 7.5 miles. In spite of this apparent regularity in their spacing, three main concentrations were evident: there was a western cluster in the Freetown Peninsula, a southern-central group around Bo, and an eastern concentration including Manowa, Lago, Pendembu and Kailahun.

Furthermore, the deviations of the nearest neighbour distances of large centres were fairly small (Table 2.2). Since

"the average deviation of ... (towns) from the national mean provides an indication of regularity in the distance separating ... towns and their nearest neighbours",<sup>27</sup>

we may conclude that there was also a general regularity between the spacing of large centres and their nearest neighbours.

TABLE 2.2  
DISTANCE BETWEEN TOWNS (above 2,500) AND THEIR  
NEAREST NEIGHBOURS, 1927

Town	Rank of Pop. Size	Distance between each Town and its Nearest Neighbour (in miles)	Deviation of Distance of each Town From National Mean (in miles)
Freetown	1	4.0	5.6
Wilberforce	2	4.5	5.1
Bonthe	3	5.0	4.6
Kissy	4	5.6	4.0
Bo	5	8.3	1.3
Pendembu	6	6.1	3.5
Largo	7	7.1	2.5
Manowa	8	6.0	3.6
Bumpe	9	7.5	2.1
Segbwema	10	4.6	5.0
Kailahun	11	5.6	4.0
Port Loko	12	19.0	9.4
$\sum X$	-	83.3	50.4
$\sum X/12$	-	6.9	4.2

In addition to the above, the mean distance between towns in the same population class was directly proportional to the size of that class, (Table 2.3). This fits in quite well with the observations of Christaller and others that

"the greater the size of the urban centre the greater the distance between it and the nearest larger centre".<sup>31</sup>

TABLE 2.3

MEAN DISTANCES BETWEEN TOWNS, 1927

Town Size	Mean Distance (in miles) Between:	
	Towns in the same pop. class	Nearest pop. class
Above 50,000	-	42.5
7,000 4,000	41.0	36.0
3,999 3,000	25.0	14.0
2,999 2,000	22.7	5.0
1,999 1,000	8.0	-

Even as early as 1927, Freetown's primacy was very marked; for it had about 2.91% of the country's population and 3.6% in the Freetown agglomeration. The town's index of primacy (i.e. two-city index) was 8.08, and the four-city index was 3.32. All these showed the great difference between Freetown and other urban centres in the country.

(b) Factors modifying the 1927 pattern: The 1927 network was considerably altered by factors such as mining, road construction, increased birth rate due to improved medical facilities and increased occupational opportunities in towns. These factors resulted both in an increase in the number of settlements above 1,000 and in the size of some urban centres notably Freetown, Bo, Kenema, Koidu-Sefadu.

The beginning of gold mining in the Sula Mountain-Kangari Hill area in 1927 led to the growth of large settlements either in the many river valleys that dissect these ranges or at the topographic junction between the north-eastern highlands and the interior plains. During this period, settlements like Bumbuna, Makali, Baomahun, Gobwebu, Magboloko, Mongeri, Mabonto, Matotoka, and Magburaka, grew fairly fast.

The decrease in the output of gold in the 1940's (compare the 1932 output of 15,604 ozs. troy to the 1946 output of 199 ozs. troy) coincided with the steady increase in the mining and export of iron ore. Thus most large settlements in the gold mining area became moribund, but a few like Magburaka and Bumbuna continued to grow because of administration, increased retailing, and easy accessibility by roads. The history of Mabonto epitomizes that of a typical moribund town in this area. That town was at one time preferred as an administrative centre to Magburaka and continued to be the headquarters of the Tonkolili District until 1952 when the whole machinery was moved to Magburaka. The ruined houses of the administrators remind visitors of that prosperous

phase. While the towns in the gold area decayed, settlements like Lunsar, Pepel and Marampa grew and are still growing because of iron mining. Some unemployed gold miners might have found new jobs in the Marampa iron ore mines and at Pepel, the ore port. Furthermore, in the 1940's chrome ore mining, which was started in 1937, induced the growth of Hangha, the main mining centre.

Though diamond mining was in progress in the 1940's, it neither encouraged the mercurial growth of existing towns, like Jaiama Nimi Koro and Kainkordu, nor the growth of mushroom towns. Mining then, was solely in the hands of the S.L.S.T. (Sierra Leone Selection Trust). Any increase therefore in the population of settlements like Yengema and Sefadu was due to S.L.S.T. employees. In the mid-1950's, however, even before the granting of alluvial mining licences, the desire to get rich quickly made people migrate to the diamond mining Eldorado of the middle Sewa and Mano River valleys. Mobility to this area was increased when the government started issuing alluvial diamond mining licences in 1956. The results of this movement included the neglect of agriculture with serious consequences, and the phenomenal growth of settlements in the mining area. Small villages like Yamandu, Peyima and Koidu grew very fast and new settlements such as Mana Junction, Koi and Bondayilahun, developed ex nihilo. Within a north-south belt which is roughly bounded in the south by Kenema and in the north by Yamandu and Yengema, towns have developed so fast that the resultant urban pattern

(1963) bears little resemblance to that of 1927.

In addition to the above, the development of mines also led to the growth of new communities near them.

"In some cases ... (they were) organised by the Company concerned (Marampa); in others ... (they were the) result of spontaneous and uncontrolled growth (Lunsar)".<sup>2</sup>

Besides mining, commercial rice growing in the Scarcies river valleys in the north-west caused the development of small towns as agricultural centres. Similar settlements may have developed in the southern mechanical rice cultivation area around Gbap, but the relative susceptibility of this area to flooding and the very recent introduction of mechanical cultivation may help explain their absence.

Although the influence of fishing on urbanization is comparatively small, the growth of some coastal urban centres like Yeliboya (in Samu chiefdom), Plantain (Kagboro) and Katta (Kagboro), is directly the result of this.

In the country as a whole, road communication helped both to augment the importance of certain towns (Makeni, Magburaka, and Port Loko), and aid the decay of others. The moribund nature of Yonibana for example is partly because the town was side-tracked by the main Bo-Freetown road. Since the influence of roads as elements of town fixation really became important when mining in the country became very vigorous, the present pattern of urban settlements reflects communication influences working conjointly with the natural resources of the different sections

of Sierra Leone. Thus along the new routes,

"villages, which often marked stages in construction were revitalized. Trade centres grew up along the lines"?

The increase in urban retail trade has also helped in attracting rural people to towns, where they hoped to get paid jobs and live in a semi-sophisticated society.

(c) Analysis of the 1963 pattern: According to the 1963 census, there were 160 places with over 1,000 inhabitants in 1963. This gives a hypothetical mean distance between towns of 14.5 miles. Generally, on the basis of the actual mean nearest neighbour distance, the country was divided into four regions (Fig. 2.4). It was only in region B that the actual mean distance was less than the hypothetical one; in the others, it exceeded it in varying percentages (Table 2.1) - the largest variation being in region D. Thus only B had minimum dispersion. In the others, increased dispersion was evident, and in D, it was at its maximum. Regions of urban concentration, B, were found in the west (the Mambolo - Kambia region), the Freetown Peninsula, around Makeni and the Kayima - Matru - Koindu triangle (Fig. 2.4). These sections are either commercial agricultural areas, mining regions or important trading centres. In the livestock areas of the north and the fishing and subsistence agricultural regions of the south, towns were relatively widely spaced. Furthermore, urban centres were few or almost absent in the mountainous and swampy areas of the north-north-east, and the south and south-west respectively (Fig. 2.2).

The mean distance between the largest towns and their nearest neighbours ranged from 2 miles (for Kissy) to 33 (for Bonthe) (Table 2.4) giving an average mean distance of 11.2 miles. This was close to the hypothetical one of 14.5. As the average mean was closer to the hypothetical one in 1963 than in 1927, it may be inferred that there was a more even scatter of towns in 1963 than in 1927 (compare Figs. 2.1 and 2.2).

TABLE 2.4

DISTANCE BETWEEN TOWNS (above 6,000) AND THEIR  
NEAREST NEIGHBOURS, 1963

Town	Rank of Pop. Size	Distance be- tween each Town and its Nearest Neighbours (in miles)	Deviation of distance of each Town from National Mean (in miles)
Freetown	1	3.0	11.5
Bo	2	10.0	4.5
Kenema	3	9.8	4.7
Kissy	4	2.0	12.5
Makeni	5	10.0	4.5
Lunsar	6	24.4	9.9
Koidu	7	4.4	11.1
Yengema	8	6.4	8.1
Wilberforce	9	3.6	10.1
Magburaka	10	24.1	9.9
Segbwema	11	8.8	5.7
Bonthe	12	33.3	28.8
Jaiama (N.Y)	13	5.5	9.0
$\Sigma X$		145.3	120.8
$\Sigma X/13$		11.2	9.2

The mean distance measurement between towns and their nearest neighbours may be used as an index of urban concentrations for the smaller the measurement, the greater the clustering of towns. On this basis (see Table 2.4) we should expect greater concentration

of urban centres around Koidu, Freetown, Kissy, Wilberforce, Jaiama (Nimi Yema) and Yengema, than around Lunsar, Magburaka or Bonthe. This is confirmed by the map of Town Sizes, 1963 (Fig.2.2).

#### 4. Comparison of the 1927 and 1963 Patterns.

(a) Distribution of towns: Between 1927 and 1963, the geographical distribution of towns in the country changed considerably. There has been increased urbanization in the Kambia-Mambolo area of the north-west, around Makeni, and in the Matru-Kayima-Koindu triangle. In the Mambolo-Kambia area, for example, there were 23 places with over 1,000 people in 1963 in contrast to only 3 in 1927. Similarly, in the Kayima-Koidu-Jaiama-Barma region (a section of the triangle) there were 29 such centres in 1963, but only 8 in 1927. In fact individual towns have also grown considerably during this period; Koidu from 96 to 11,706, Bo from 3,780 to 26,613 and Mambolo 1,152 to 3,595.

In contrast, certain areas especially the agricultural south, have experienced urban decay. Within a belt bounded by Kenema, Manowa, Barma and Blama, for example, the number of towns has decreased from 41 in 1927 to 27 in 1963. Similar changes are evident east of a line joining Daru, Kenema and Pujehun where it has decreased from 15 to only 5. Individual settlements have also experienced depopulation; Giehun's population decreased from 2,094 to 1,975, Manowa from 3,030

to 1,844, Daru from 2,250 to 1,753, and Bumpe from 2,952 to 1,812.

Actually not all sections of the country have experienced population change, for in some areas like the Luawa administrative "peninsula", the Kabala-Falaba belt, and the Freetown Peninsula, the number of towns has remained practically constant although internal promotions and demotions of settlements are evident in each Belt.

The general internal redistribution of urban centres, has also been reflected in an increase in the size and number of towns. There were in 1963, 160 places with over 1,000 inhabitants, as compared to 111 in 1927. This gives an increase of 44.5%. Furthermore, in 1927, 91 towns (with a total population of 118,108) had between 1,000 and 1,999 inhabitants, but in 1963, there were 101 such places with a total population of 117,099 (Table 2.5). In essence there was no marked increase in the number of very small urban centres. Great changes, however, were evident in some of the other population-size groups: in 1927, no towns had between 8,000 to 27,000 inhabitants, but in 1963, there were six such settlements. Although urbanization is still incipient, the evident increase in the number of large towns reflects more retail trade, expansion in mining and accelerated rural-urban migration.

TABLE 2.5

SIZE CATEGORIES OF URBAN PLACES, 1927 & 1963

Population Size	Total Population		No. of Towns		% of Urban Population		Cumulative %	
	1927	1963	1927	1963	1927	1963	1927	1963
1,000 - 1,999	118,108	117,09	91	101	50.9	22.3	100.0	100.0
2,000 - 3,999	42,367	92,662	16	34	18.6	17.7	49.1	77.7
4,000 - 5,999	8,171	58,686	2	12	3.7	11.3	30.5	60.0
6,000 - 7,999	6,849	39,816	1	6	2.9	7.5	26.8	48.7
8,000 - 9,999	=	=	=	=	=	=	=	=
10,000 - 11,999	=	11,706	=	1	=	2.3	=	41.2
12,000 - 13,999	=	50,825	=	4	=	9.7	=	38.9
14,000 - 19,999	=	=	=	=	=	=	=	=
20,000 - 26,999	=	26,613	=	1	=	5.2	=	28.2
27,000+	55,359	127,917	1	1	23.9	24.0	23.9	24.0
X	230,854	524,694	111	160	100.0	100.0	=	=

(The 1927 figures are derived from the 1927 village books - see Introduction; those for 1963, from the 1963 Census).

Freetown's share of the total urban population has changed very little (compare 23.9% in 1927 to 23.4% in 1963). What has changed, is her share of the national population (Table 1.6). Although the gap between the population of Freetown and that of other large urban centres is still great, there are signs that it is gradually closing. This is evident from the comparisons of the Index of Primacy, the Two-City Index, and the Four-City Index for 1927 and 1963 (Table 2.6). The differences show that Freetown's rate of growth is less than those of places like Bo, Kenema and Koidu. In other words, the rate of growth of administrative-cum-mining centres is higher than that of purely administrative and trading centres.

TABLE 2.6

PRIMACY OF FREETOWN, 1927 AND 1963

	1927	1963
% of National Population	3.1	5.8
Index of Primacy	8.1	4.7
Two-City Index	4.5	3.3
Four-City Index	2.3	2.0
Freetown Agglomeration as % of total pop.	3.6	8.7

(Source: the 1927 village books and the 1963 Census)

(b) The urban-size hierarchy: The curve of city rank-size rule has been described as a curve of "probabilities of distribution". In spite of this, it is an interesting tool for the examination of the hierarchy of urban centres within a geographically bounded territory. On the whole, the two rank-size graphs (Fig. 2.5) for 1927 and 1963 are very similar (being broadly concave) and the 1963 one is, in the main, an elongated form of the 1927 graph. The two graphs show a preponderance of smaller towns, and large urban centres are on the whole, very few. But a close look shows, however, that the 1927 graph is more concave than the 1963 one. This generally smooth concave outline of 1927 is a reflection that the urban network at that time was not influenced by the strongly deforming forces (mining, mechanical agriculture, and roads) which played an important part in producing the 1963 urban pattern. Of the four towns responsible for the bulge in the graph of 1963, two (Koidu and Lunsar) are major mining towns, one (Makeni) is a principal administrative and retail trading centre, and the last (Kissy) is an important outlet for the excess population of Freetown.

The actual rank-size graphs, are completely different from the hypothetical expected ones (Fig. 2.5). In 1927 for example, only five towns (Kailahun, Port Loko, Sah, Daru, and Panguma) had their actual population almost the same as the expected ones. In 1963, however, only two towns (Koidu and Jaiama Nimi Yema) had populations very similar to the expected ones.

TABLE 2.7

APPLICATION OF THE RANK-SIZE RULE TO LARGEST TOWNS (above 2,500) IN SIERRA LEONE, 1927

Town	Rank of Popu- lation	Reciprocal of Rank	Actual Pop.Size (a)	Expected Pop.Size (b)	Differ- ence between (a) & (b)	Differ- ence as % of (a)	Differ- ence as % of (b)
Freetown	1	1,00000	55,359	31,306	24,053	43.4	76.8
Wilberforce	2	0,50000	6,849	15,653	8,804	128.5	56.2
Bonthe	3	0,33333	5,400	10,435	5,035	93.2	43.8
Kissy	4	0,25000	4,391	7,826	3,435	78.2	43.8
Bo	5	0,20000	3,780	6,261	2,481	65.6	39.6
Pendembu	6	0,16667	3,714	5,217	1,503	40.5	28.8
Largo	7	0,14286	3,312	4,472	1,160	35.0	25.9
Manowa	8	0,12500	3,030	3,913	0,883	29.1	22.6
Bumpe	9	0,11111	2,952	3,478	0,526	17.8	15.1
Segbwema	10	0,10000	2,790	3,130	0,340	12.2	10.9
Kailahun	11	0,09091	2,772	2,846	0,074	2.6	2.6
Port Loko	12	0,08333	2,700	2,608	0,092	3.5	3.5
$\Sigma$	-	3,10321	97,049	97,145	48,386	549.6	374.1
$\Sigma$ /N	-	-	8087,417	8095,417	4032,167	45.8	31.2

TABLE 2.8

APPLICATION OF THE RANK-SIZE RULE TO LARGEST TOWNS (above 6,000) IN SIERRA LEONE, 1963

Town	Rank of Population	Reciprocal of Rank	Actual Pop. Size (a)	Expected Pop. Size (b)	Difference between (a) & (b)	Difference as % of (a)	Difference as % of (b)
Freetown	1	1,00000	127,917	80,600	47,317	37,0	54.7
Bo	2	0,50000	26,613	40,300	13,687	51,5	31.6
Kenema	3	0,33333	13,246	26,867	13,621	102,9	52.6
Kissy	4	0,25000	13,146	20,150	7,004	53,5	32.8
Makeni	5	0,20000	12,304	16,120	3,988	32,4	23.8
Lunsar	6	0,16667	12,132	13,434	1,302	10,7	9.8
Koidu	7	0,14286	11,706	11,514	0,192	16,4	16.6
Yengema	8	0,12500	7,313	10,075	2,762	37,7	16.2
Wilberforce	9	0,11111	6,950	8,956	2,006	29,0	22.5
Magburaka	10	0,10000	6,371	8,060	1,689	26,5	19.6
Segbwema	11	0,09091	6,258	7,327	1,069	17,0	14.6
Bonthe	12	0,08333	6,230	6,717	0,487	7,8	7.2
Jaiama (N.Y.)	13	0,07692	6,064	6,200	0,136	2,3	2.2
$\Sigma$	-	3,18013	256,250	256,320	95,263	424,7	314.2
$\Sigma$ /N	-	-	19,714.615	19,714.615	7,328.154	32,669	24.169

Analysis of the largest urban centres in 1927, and 1963, (Table 2.7 and 2.8) also shows clearly the disparity between expected and actual populations - a reflection that the rank-size rule

"although in many cases a reasonable approximation to the actual distribution of towns by size, has no logical basis."<sup>31</sup>

For the 12 largest towns in 1927, the over-all index of deviation from the rank-size rule is 24.8%, whereas in 1963 it is 15.1%. These figures give

"a good over-all measure of the lack of conformity to the rank-size rule;... (and since) the greater the per cent, the less the conformity,"<sup>31</sup>

the 1963 pattern, therefore, conforms far more than the 1927 one.

Furthermore, these percentages of deviation represent

"the per cent of (town) residents who would have to move from one ... (town) to another to bring about a perfect correspondence between the urban hierarchy and the rank-size rule."<sup>31</sup>

Comparison of the actual and expected graphs (Fig.2.5) shows that some of the conclusions of Browning and Gibbs<sup>33</sup> hold true for Sierra Leone:

- (i) that the larger the town the greater the difference between its actual and expected size (Tables 2.7 & 2.8).
- (ii) that the smaller the urban centre, the greater the dissimilarity between its actual and expected size.
- (iii) that the larger the town (except in the case of Freetown) the more its hypothetical size exceeds its actual one.

Some of their conclusions are not, however, true for Sierra Leone, viz.,

- (iv) that the smaller the town, the greater its theoretical size exceeds its real one. In Sierra Leone, the opposite seems to be true, since the smaller the urban centre the more the actual population exceeds the expected size. (Compare the actual population of Masingbi, 2,425, to its expected population of only 1,450).

To these conclusions we may add that for fairly large urban centres, the direction of the deviation from the rank-size rule is negative; the expected population of fairly large towns being larger than their actual population.

The urban network of the whole country is far from stable; it will remain unstable as long as the main agents dictating the spatial distribution of towns are ephemeral. The urban mesh will only be stable if these temporary deforming forces either become neutralized by more permanent factors like agriculture, administration, retail trade and industries or completely replaced by more rooted and less effervescent agents.

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CHAPTER 3URBAN POPULATION

When the settlement unit of the country was the village with outlying hamlets, the inhabitants of a particular settlement were from a single tribe; often from a single kinship group or, from a lineage. This homogeneity of population was evident to many early writers. Laing writing about Maboom in 1825 said that it consisted

"of two towns, old and new ... the former inhabited by Timannees and the latter by a few families of Madingoes, who emigrated, a few years since from the territories of the Alimane Amara".<sup>1</sup>

Here the few Madingoe families lived in a separate settlement close to the old town of Maboom. Goddard making an appraisal of that period observed that

"one could put one's finger on a map and say, 'in this country there are Temnes and no Konos; in this Susus but no Mendes'; and while some fusion may take place as the result of intermarriage on the borderland of two totally different races, it may be accepted as generally true that most of the several races have established themselves in different portions of the country and ... they hold very closely to the usually clear-cut boundaries they have established for themselves."<sup>2</sup>

If there was territorial homogeneity, then there was urban ethnic unity. The fear of war, suspicion of people from another clan or village, problems of social cohesion within the group and possible breakdown of traditions were all factors that militated against ethnic heterogeneity at that time within towns.

### 1. Factors Leading to Ethnic Heterogeneity

The homogeneity of ethnic composition of towns was changed by many factors, including trade, missionary activity and the spread of educational and medical facilities, the institution of the Protectorate, the construction of the railway, mining, road construction, and employment facilities in towns. These have also resulted in increased population mobility and accelerated rural-urban migration.

During the slaving period, people of different tribes, and from different towns, suddenly found themselves in the same plight and under the same roof. Their reaction towards one another was, firstly hatred, secondly reconciliation to circumstances, and thirdly mutual co-operation. This breakdown of tribal feelings and affinities was therefore very marked in the coastal and estuarine slave settlements like Port Loko (previously called Bake Loko), York Island and Shenge.

With the abolition of the slave trade and the arrival of the Maroons and the Nova Scotians (around 1800), settlements developed in the Freetown Peninsula close to native villages. Around Freetown, for example, were native settlements like King Tom's, Pa Demba's, King Jimmy's and Pa Maquoit's. At first, friction inevitably arose between the natives and the liberated slaves. In Freetown after Captain Savage had returned to Britain,

"King Jimmy gave the settlers three days warning to quit the settlement. Then in revenge

for the burning of his own town,  
he burnt it down".<sup>3</sup>

Later, co-operation became the rule; for when the French sacked Freetown in 1794, some of its inhabitants

"were sheltered by the Temne. Pa Demba whose town lay to the south ... took in refugees".<sup>4</sup>

With such favourable relations between these groups, the natives gradually moved to Freetown; first as traders exchanging vegetables, for imported goods, then as labourers. Here one sees the first traces of ethnic diversity and the breaking down of social traditions. So great was the influx of natives to the settlement of Freetown, that the Colonial Office was asked to

"pass an Ordinance to expel aliens, only allowing a limited number in to trade ... and to restrict ... the number of Kru, (who were) ... no longer necessary to a Colony where there was much unemployment"<sup>5</sup>.

The settlers felt that these people deprived them of a living.

The influence of the slave trade on ethnic integration was limited to coastal areas. For in the interior the first important agent was missionary activity. Ever since missionaries came to Sierra Leone - the Church of England (1804), the United Brethren Churches (1855), the Catholic Mission (1864) - they have tried to breakdown tribal fears and customs in three main ways. Firstly, they preached parables like the "Good Samaritan" and told people about the famous words of Christ - 'Love thy neighbour as thy self.' Here they impressed on the people that every

other Sierra Leonean (whether Mende, Temne, Fula, or Limba) was a neighbour. Secondly, mission schools were instituted where people from different tribes were taught together. A typical example of this, was the influx of provincial children to Freetown for secondary education. The present Prime Minister (a Mende), was educated at St. Edward's School; and Mr. Siaka Stevens, the Leader of Opposition (a Limba) at the Albert Academy. Tribal affinities were gradually disintegrating. Thirdly, mission hospitals and dispensaries were developed, making people of different tribal backgrounds live together - a factor important in the development of urban tribal heterogeneity. During the early part of this century, for example, there was an important hospital in Gbangbaia (Bonthe District) under the famous Dr. Huntley. People from all over Sierra Leone came to this hospital. Thus the triple activity of the missions has helped in creating peace and an atmosphere suitable for detribalization.

Complementary to missionary activity was "commodity" trade which was in existence since the end of the 16th Century. By the late 19th Century, therefore, there were signs of trade co-operation between different tribal people. Traders from the Niger watershed and Fabela for example, usually travelled south-westwards to exchange rubber, gold, ivory, hides and calabashes at Kambia, Rokel and Robari for groundnuts, ginger, kola nuts, and rice. Similarly trade developed between interior settlements (Panguma, Tikonko, Kailahun), and coastal towns like Mano Salija,

Pujehun, Sulima and Bonthe. Actually, this trade reduced tribal fears and introduced new ethnic groups into towns. For when people came to trade a few often stayed and married. At that time, it was common for a Mende when asked about a male relation to say "Ie ya Ndoleihun" (that is, he has gone to stay in other parts of the country). Brave young people suffering least from Oedipus complex were often described as those who may leave home to settle somewhere else.

In the late 19th century two other factors, the proclamation of the Protectorate (1896) and the Hut Tax War (1898), also aided ethnic admixtures. The former, a move to make chiefs settle disputes by peaceful means, made defence against neighbours unimportant but encouraged trade between them. Fear of neighbours was replaced by co-operation. The first test of this change of attitude was in 1898 when some chiefs (notably in Temneland) co-operated and tried to resist paying tax.

The peace that ensued after the Hut Tax War, and the eventual completion of the railway (1916), encouraged increased internal mobility, accelerated urbanization and tribal diversification within towns. The railway, in some ways, preached the same doctrine - peace - as that which stimulated the proclamation of the Protectorate. It was

"calculated to impress the chiefs and their war-boys that the future

lay with peace, mission schools and Manchester cotton; that the old order... had passed away for good"<sup>6</sup>.

The change from hostility to peace really impressed Alldridge when he wrote:

"can it really be possible that two trains full of peaceable travellers should actually be starting from this remote place ... (Bo) so near to scenes that only ten years ago had been the centres of the native rising, and of the most terrible massacres which then took place?"<sup>7</sup>

That peace really induced internal migration for even as early as 1908 tribal heterogeneity in towns was evident; Provincial people started migrating to Freetown. Towards the end of the 19th century (about 1894), Konoland, for example, was unknown,

"but so rapid was the change that in 1908... (Alldridge) was able in Freetown to engage for ... his hammock, boys who had come down from ... Kono country looking for work"<sup>8</sup>.

By the mid-1930's therefore the ethnic complexity of many towns was fairly marked. This is evident from the tribal compositions of towns given in the Military Report on the Colony and Protectorate of Sierra Leone, 1933 (Table 3.1):

The late 1920's and the early 1930's witnessed the generation of a new agent, mining, which will not only influence urbanization but will also considerably alter the demographic

compositions of towns. In 1926 Dr. Junner discovered iron ore in the Marampa-Tonkolili area, and gold in the Sula Mountain/Kangari Hill region. Furthermore,

"in 1930 the first diamond was discovered in Kono country, a land poor, remote, and stricken with sleeping-sickness. (Then) chrome ore was found in 1937 most strategically located near the railway at Hangha".<sup>9</sup>

TABLE 3.1  
ETHNIC COMPOSITION OF SOME TOWNS, 1933

Town	Tribal Composition
Rotifunk	Sherbro, Mende, Temne
Mabang	Temne
Shenge	Sherbro
Panguma	95% Mende
Taninahun	Mende
Boajibu	Mende
Njala	Mende
Dodo	Mende
Tungie	95% Mende, few Temne
Samaia	Susu
Pendembu (Pendembu Chiefdom)	Loko, some Fula
Batkanu	Loko
Kamakwie	Limba, Temne

Mining in general, resulted in large internal migration to the mines. In fact it is estimated that gold mining attracted

about 30,000 people, iron mining many thousands, whereas diamond mining is still attracting annually more than 30,000 people with different tribal and social backgrounds.

Certainly

"the mines - diamond, chrome, iron and gold - have created a new class, in the last twenty years: the beginnings of an industrial proletariat. It is by many restless young men considered a more desirable status than that of the farmer. At Lunsar, a thousand or more hangers-on wait hopefully for jobs in the ore workings; or if discharged for any reason, hang on because they dislike the alternative. At Lunsar, and to some extent at Yengema, the 'detrribalized' native has made his appearance, but not as a creole, with his eyes set on an education leading to a white-collar job. He is a workman owing no allegiances, ambitious only for his pay and what it will bring".<sup>10</sup>

Similarly, in Kenema, Gamble noted that

"the rush to the diamond areas in the middle 1950's brought many strangers and led to a great increase in the population".<sup>11</sup>

These internal movements are very markedly reflected in the ethnic composition of mining towns. In Lunsar, for example, where

"the dominant tribe ... is Temne (70% of the population) ..... many other people have been drawn to the area - Limba and Loko from the north, Koranko from the north-east, Kono from the east, Vai from the south-east, Sherbro from the coast,

Susu from the north and from Guinea. In early days when people were unused to moving freely about the country, each major tribal group had its own sector in the town, but with the passing of time this has broken down. There are more non-Fulbe in Fula town than Fulbe. There is one Mende household in Mende Street, and .... few Limba in Limba town"<sup>12</sup>.

This marked tribal admixture is also evident in Kenema where beside the Mende (over 60% of the total population) one also

"finds not merely people from other parts of Sierra Leone such as Limba, Loko, Temne, Sherbro, Vai, Kono, but also individuals from all over West Africa: Mauritians from north of the Senegal, Serakuli (Maraka) from Mali, Wolof and Mandinka from the Gambia, Jola from the Casamance, Fulbe, Susu and Madingoe, Guinea, Kru, Grebo, Bandi, Gola, Kpelle and Kissi from Liberia, Ga from Ghana, Yoruba, Hausa, Ibo, etc. from Nigeria, as well as representatives of the various expatriate firms - Greek, French, German, Indian and English - Irish priest and nuns, and American Peace Corps teachers"<sup>13</sup>.

In addition to mining, the social and employment attraction of fairly large important urban centres are too much for the young people from rural areas and moribund towns to resist. Movements to a particular centre is not therefore restricted to certain regions. Kenema's attraction (Fig. 3.1) for example is not just limited to its immediate sphere of influence. This desire for employment also helps to explain the large

influx of provincial people to Freetown (Table 3.2) with the result that it is no longer a haven of Creoledom (Table 3.3).

TABLE 3.2

NEW REGISTRANTS IN FREETOWN BY TRIBE, 1953

Tribe	Total
Temne	435
Mende	396
Limba	339
Loko	137
Fula	134
Madingoe	56
Sherbro	44
Susu	63
Kono	49
Kissi	43
Other Sierra Leone Tribes	52
<b>Total</b>	<b>1,748</b>

(After M. Banton, West African City, O.U.P. 1960, Table 8, p.61.)

Sometimes, purely sociological factors have induced people to migrate to towns. Banton, it may be noted, had observed that some migrants preferred living in Freetown because there is "more money, more food and more freedom"<sup>14</sup> freedom from native traditions, from agriculture and from a monotonous way of life. Moreover, some people came to the towns because

"as lorry boys, they could get their relatives cheap rides, could do a profitable trade in vehicle spare parts and got tips instead of thanks ...

TABLE 3.3

## ETHNIC COMPOSITION OF FREETOWN, 1963

Tribe	Population
Creole	27,730
Fula	6,533
Gallinas	91
Gola	6
Kissi	774
Kono	540
Krim	29
Kroo	4,461
Koranko	257
Limba	18,410
Loko	5,842
Madingoe	3,141
Mende	12,561
Sherbro	3,051
Susu	3,865
Temne	30,595
Vai	88
Yalunka	124
Others	7,695
No Tribe	2,124
<b>Total</b>	<b>127,917</b>

(Source: The 1963 Census)

TABLE 3.4

## REGISTERED UNEMPLOYMENT IN FREETOWN, 1957-61

Year	January	July	October	December	Total
1957	1,549	1,184	1,770	1,964	6,467
1958	2,503	1,670	2,820	2,920	9,913
1959	3,507	2,630	3,770	3,237	13,144
1960	3,886	3,462	4,314	4,456	16,118
1961	4,080	3,228	4,594	5,230	17,132

(From Annual Reports of the Labour Dept.,  
Sierra Leone, 1957-61)

with prospects of promotion to driving, it was an attractive opening which drew even literate youths who had been to school".<sup>15</sup>

In essence, the

"town is both an attraction and an influence. It attracts people for a variety of reasons: to seek paid employment either temporarily or permanently, to satisfy the desire for travel and adventure made possible by improved means of communications, to escape from the restraints of customary society, to attend schools more readily available in towns, and for the educated, to enjoy the greater opportunities for intellectual and cultural pursuits".<sup>16</sup>

These agents of detribalization have also disrupted our traditions and customs which are indeed in a melting pot.

## 2. Effects of Urban Ethnic Heterogeneity

Migrations to towns inevitably result in problems like unemployment and adjustment to an individualistic society. People usually migrate to urban areas with the hope of getting a job, but in some cases they are disappointed. This results in high urban unemployment figures as in Kenema and Lunsar where in 1962, Gamble,<sup>17</sup> from sample surveys, observed that 8% and 13% of the male population respectively were unemployed. In Freetown, similarly, the high unemployment figures (Table 3.4) are still increasing.

Even the Government was concerned about this, for the appraisal of the situation by the end of 1961 was not very optimistic:

"Since more and more people continued to drift from arable land in search of gainful employment, the unemployment situation was more acute than ever before, and the situation caused much concern to both the government and the trade unions. There were fears that lack of employment might lead to an increase in crime, but fortunately the subsequent rapid strides in industrialization in the territory made all concerned quite optimistic about employment prospects".<sup>18</sup>

This report also noted that

"the absence of any change in the unemployment situation ... was due to the influx of farmers to the city and large provincial towns in search of other jobs to avoid the time and effort spent on farming with crude implements and the expense involved in mechanized farming which they could not afford. The tightening up of restrictions on illicit diamond mining also drove a number of disillusioned illicit miners to the doors of the employment exchanges to register in the hope of gaining a steady employment".<sup>19</sup>

Actually, the urban unemployment situation is worse than this since not all unemployed residences are registered. Furthermore,

"seasonal migrants do not register with the Employment Exchange but obtain work through a friend or do a casual labour. Many men hang round the Freetown streets and on hearing the call 'Woruk! Woruk!' run to

earn 6d by carrying home some heavy goods that the purchaser has just bought".<sup>20</sup>

In addition to the above, the influx of immigrants to towns also results in problems of good accommodation. Since before migrating to urban centres most of the migrants were either farmers or engaged in poorly paid jobs (Table 3.5), they could not afford to pay the rent required for good houses in towns. Where possible, they prefer to stay with friends. In Freetown and Koidu for example, individuals often rent houses and sub-let them to their friends or tribal people at a profit. Such houses are usually overcrowded and unhealthy. Sometimes, these migrants live in shanties either within or close to towns. The shanties of the Limba palm-wine tappers found close to many urban centres in the country are examples in point. In fact this shanty development has reached its maximum in Freetown where tribal shanties occur: Ginger Hall, Dworzak Farm and Kpaama (Mende); Krootown (Kroo); Mendes Street area (Limba). In such tribal enclaves, the tribal customs survive. On some nights for example, one can hear the traditional Mende drums of Ginger Hall from Mount Aureol. Really bundoo initiation ceremonies are still carried on at Kpaama (Brookfields). Banton also observed this when he stated that

"the women's secret societies.... are strong in Freetown; even Creole girls sometimes seek initiation".<sup>21</sup>

TABLE 3.5

## NEW REGISTRANTS BY PREVIOUS OCCUPATION, 1953

Occupation	Total
Farmer	627
Labourer	166
Non-technical tradesman	118
Technical tradesman	186
Domestic servant	209
Scholar	58
Miscellaneous	158

(After Banton, Op cit., p.62, Table 10.)

Among the poor migrants,

"there is a tendency... for labourers, watchmen, and those in the lower income groups to live in the older part of town where houses are poorer and rents cheaper".<sup>22</sup>

Adequate housing is really a problem and despite the evident increase in the number of new residential buildings in Freetown there is still a shortage of housing accommodation. Consequently, overcrowding is not an uncommon feature, particularly among workers in the low income group. No town in the country has sufficient and adequate housing; few have sanitary facilities of the type and extent needed when people live together in close proximity. Thus Sierra Leone towns are still very ill-prepared to receive many migrants from rural life because most

"of the essential material, spiritual and cultural services and opportunities required to give satisfaction to life in towns are for the most part missing; in fact ... (these) towns are not civic entities but rather an agglomeration of people with an incomplete structure for urban living".<sup>23</sup>

On another plane, influx of tribal people into towns has resulted in ambivalent administrative problems. When the number of people from a tribe in a town becomes fairly large, they may elect a tribal headman. Thus the immigrants

"generally have their own tribal leaders or headmen who act as intermediaries between their illiterate followers and the civic authorities ... (they also) perform a host of minor duties in connection with their own people".<sup>24</sup>

Tribal headmen are present in many large towns, and in Freetown, for example, there were about 40 in 1965. The growing interest of the government in these elections shows that political factors are becoming important even at such levels.

Furthermore, this urban social change brought about by ethnic heterogeneity has led to the development of tribal associations similar to those that prevail in rural areas.

The organization of the voluntary associations

"involves the continuation of European offices and procedure ... with traditional practices of dancing and drumming and a strong emphasis on fraternity and sociability ... Such groups provide an important link between the modern institution brought in by the Europeans and the traditional life of the countryside;....."

they substitute for the lineage and other kinship groups by providing their members with companionship and mutual aid, solace and protection".<sup>25</sup>

These associations also provide the means of consultation and arbitration especially where the tribal headman is also a senior member of the association. Actually, among poor migrants social relations are primarily in terms of the ethnic group to which an individual belongs rather than according to social and economic criteria.<sup>26</sup> In other words, kinship and tribal affiliation play a part in towns which becomes increasingly important as literacy decreases.

The idea of associations and tribal organisations is sometimes extended to the religious domain. In Freetown for example, it is

"one aspect of a fresh surge of tribal awareness... which has been visible in political and social organization; ... tribal politics, national politics and mosque politics are all at times involved with each other. The creation of tribal unions and tribal societies show the same impulse in other forms".<sup>27</sup>

Tribal churches, like the Limba and Mende ones in Freetown, and mosques are becoming common. Commenting on the mosque situation in Freetown (1959), Proudfoot states that

"the new mosques - the Temne, the Madingoe, the Fula, and the Hausa - are all very large and advertise the ecclesiastical architecture of the Near East; a particular tribe was responsible for the building of each; and the tribal vernacular are - except

in the case of the Madingoe - either being used already within them or about to be introduced"28.

Associations and tribal headmanship are all devices which aim at making tribal minorities feel at home in towns. In addition they ease the change-over from tribal to the sophisticated life of modern commercialized urban societies. These associations make ethnic integration impossible and may lead to dual standards of behaviour.

Even the individual tribal family has problems in the heterogeneous population of towns since it becomes detached from the kinship group. This isolation, Little contests,

"joins husband and wife together in a more intimate association"28.

Sometimes because of economic imperatives, certain young girls, who come to towns, take to prostitution. They frequent hotels like the City Hotel of Freetown, night clubs and cinemas such as the Metro of Makeni, the Capitol of Kenema, and Opera of Koidu. Furthermore, some of the children of migrant families are not well-cared for, consequently they become delinquent and finally become hardened criminals.

Ethnic heterogeneity involves adaptations to a new environment, and these often result in the development of tribal microcosms in the urban macrocosm. Problems like increased prostitution, delinquency, housing and unemployment are also consequences of this heterogeneity. But whether ethnic diversity in towns is bad or good, it is now inevitable and solutions have to be found. Some people have suggested

urban industrialization as a cure, but industrialization in places like the Rhodesian Copper Belt, has proved that it is not a solution. Increased industrialization would lead to an ever increasing flow of migrants to the town. A rational appraisal within the context of regional planning and rural rehabilitation is required. The present urban population is heterogeneous, and each town, in the main, has different demographic characteristics.

### 3. Demographic Analysis of Present Urban Population

The demographic characteristics of Sierra Leone towns reflect the interaction of many factors like trade, administration, agriculture and mining. The effects of all these are evident in the sex ratios, the age-sex compositions, and fertility rates.

(a) Sex Ratios: Of the total urban population of about 536,736, 254,887 are females, and 281,849 males. Thus there is an excess of males in contrast to the slight female excess in the whole country. But not all urban centres have an excess of males: some like Rotifunk, Kukuna and Manowa have extreme female excesses; Jaiama Nimi Yema, Sefadu and Peyima have large male excesses, whereas some others have either a slight excess of males (Koidu, Baoma, Goderich) or females (Pujehun, Matru, Bwedu) (Fig. 3.2).

The majority of towns in the country have only small excesses. Slight excesses of males are generally found in the Freetown Peninsula, in a belt stretching south-westwards from Bo to Bonthe. In the north, Kabala is the only centre with

this characteristic. Other towns in this category are scattered all over the alluvial diamond area. Possible reasons for this excess of males are employment opportunities in some large towns (Bo, Kabala, the Greater Freetown area), and mining (Lunsar, Koidu, Jaiama Nimi Koro). The fishing towns of Plantain and Katta also show this slight surplus.

Small excesses of females are found in the Makeni-Magburaka area, in the Mambolo Region, in the north in general, and along the railway line (outside the diamond mining belt). In the Magburaka-Makeni area, they possibly reflect the decline in gold mining in the Sula Mountains/Kangari Hills region and the resultant movement of young adventurous men to the mines especially those at Marampa. It has been observed<sup>30</sup> that a large percentage of the labour force at the Marampa mines comes from within forty miles radius. Whereas in the Mambolo area, they are probably due to rice cultivation which requires a lot of unskilled female labour during the transplanting and weeding period. But in the north, it seems to be the result of the influx of unmarried young Fula from Guinea.

In this group of slight excesses fall all the towns (except Jaiama Nimi Yema) with over 6,000 inhabitants, and all the District headquarters (except Sefadu). As the size of the urban centre increases, with increased commerce, there is a tendency towards a balancing of sexes; one important factor aiding this being administration.

But areas of slight excesses do not seem to show any very interesting distributional patterns; the variations in sex ratios being what one may expect in normal scatter diagrams. More important are centres with extreme urban sex ratios - those with excesses of either males or females less than or greater than one standard deviation from the mean (Fig. 3.3). Such urban centres fall into two groups; those with a large surplus of females (more than 1,196 females per 1,000 males); and those with a marked excess of males (less than 706 females to 1,000 males). Towns in the latter category are all (except Yeliboya) found in the diamond mining region of the middle Sewa River valley. But not all towns in this area have such extreme male excesses; those with this peculiarity are the recently established mining ones with practically no urban functions. Confirming this is the fact that of the 28 towns with extreme excess of males, only 3 are administrative centres (Table 3.6). It seems that as an urban centre matures, and other functions like commerce and administration are introduced, the ratio between the sexes tends to even out. Hence Koidu and Kenema have only slight surpluses of males. The large excess of males in Sefadu, an administrative centre, is probably because relations of government officers stay there, although these relatives are engaged in diamond mining.

TABLE 3.6

## TOWNS WITH EXTREME EXCESS OF MALES, 1963

Town	Chiefdom	Females/1,000 Males
Yamandu	Sando	510
Tefeya	Sando	644
Gbambradu	Sando	365
Bagbama	Sando	601
<u>Jaiama</u>	Nimi Yema	546
Dorgboya	Nimi Yema	349
Niawama	Nimi Yema	299
Sedu	Nimi Koro	579
Barma	Wando	390
Moindu	Wando	561
Gendema	Wando	592
Dema	Wando	320
Peyima	Kamara	550
Sukudu	Kamara	495
<u>Boajibu</u>	Sumbaru	648
Fomaia	Gorama Mende	370
Bondayilahun	Gorama Mende	384
Konta	Gorama Mende	586
Hangha	Nongowa	595
Gerehun	Nongowa	632
Koi	Nongowa	648
Gendema	Tikonko	469
Foindu	Lower Bambara	550
Baoma	Kandu Lappiama	583
Levuma	Kandu Lappiama	704
Yeliboya	Samu	682
<u>Sefadu</u>	Gbense	638
Kponima	Jaiama Bongor	556

(Towns underlined are administrative centres)

Outside the diamond mining region, only Yeliboya, a fishing settlement, has such sex characteristics. Men who go there fishing tend to leave their families on the mainland. The population of this settlement may not, therefore, be regarded as stable.

Thus it may be inferred that towns with extreme male excesses are mainly diamond mining centres without any other important urban functions. Other types of mining - iron ore, bauxite, rutile - are not capable of instituting such demographic extremes.

Urban centres with a large surplus of females are generally found in a north-east/north-west belt, and in the Luawa "Peninsula". Such towns are generally small and except Rotifunk, and Kukuna, have populations less than 2,000. This means that with an increase in the urban population there tends to be a balancing between the sexes. Practically all towns in this group are found in purely arable and livestock areas where polygamy and traditions are still deep-rooted. Furthermore, employment opportunities are absent, and the young men have migrated to more prosperous sections of the country. The fact that the old men, who are also the tribal authorities have many wives, and thus deprive the young men of partners, coupled with the fear of paying "woman damages" also helps induce the movement of the young men. Actually many traditional chiefs hate to see young well dressed men in their towns, and every means possible are done to discourage them and thus encourage them to move. No wonder out of a total of 17 places with extreme excess of females 8 are chiefdom headquarters (Table 3.7).

TABLE 3.7

TOWNS WITH EXTREME EXCESS OF FEMALES, 1963

Town	Chiefdom	Pop.	Females/1000 Males
<u>Rotifunk</u>	Bumpe	3,502	1,210
<u>Kukuna</u>	Bramaia	2,038	1,277
<u>Manowa</u>	Pejewa	1,844	1,192
Bali	Mambolo	1,539	1,247
Gberio Timbeko	Sulima	1,532	1,236
<u>Binkolo</u>	Safroko Limba	1,482	1,252
Baiima	Mandu	1,471	1,205
Potoru	Barri	1,433	1,211
Rochen	Yoni	1,377	1,199
Nyandehun	Luawa	1,183	1,355
<u>Damballa</u>	Salenga	1,165	1,206
<u>Bafodea</u>	Wara Wara Bafodea	1,104	1,384
<u>Songo</u>	Koya	1,062	1,231
Baoma	Luawa	1,059	1,353
<u>Masungbo</u>	Makari Gbinti	1,038	1,338
Bendu	Yawei	1,027	1,377
Katima	Mambolo	1,012	1,209

(Towns underlined are administrative centres)

(b) Population Pyramids: Although the urban age-sex pyramids are intrinsically different from each other (Fig. 3.4), similarities between some of them results in regional patterns. The age-sex structures of towns in the diamond mining area of the middle Sewa River valley, for example, show the disproportionately large number of men in the

active age of 15-64 years (Fomaia 63.4%, Peyima 52%, /group  
Gondama 59.8%). There is also a corresponding bulge in these  
pyramids on the female side. Hence the very large proportion  
of people in the active age group (Gondama, 78.2%; Peyima, 74.1%;  
Fomaia, 81.6%). If a stable pyramid tapers upwards, then the  
bulge in the active age group is symptomatic of the high rate  
of in-migration from other towns to the mining region. The  
greater mobility of men is, however, very evident.

Contrasting with the large proportion of people in the  
15-64 years age group, is the small number of children under  
five years of age. In Gondama for example, there are only  
7.8% of the population in the less-than-five years age group.  
This shows that the movement of adults is not usually associated  
with that of their children. The fact that towns fringing the  
main diamond mining area (Masingbi, Yamandu and Gandorhun)  
have completely different age structures, makes the pyramids  
of these mining towns more conspicuous.

But not all towns in the mining area have these demographic characteristics. The pyramids of Yengema, Koidu, Jaiama (Nimi Koro) and Panguma are more rational. These older mining administrative urban centres have more stable populations than the more recent mining ones.

Iron ore mining, unlike diamond mining, has not such a deforming influence on age structures, because of the stability of the labour force; most of the labourers have families. The

only peculiarity about the pyramids of Lunsar and Pepel is that after the 30-34 years age group, there is a marked decrease in the number of people in the older age groups. A young active population is required for the arduous tasks of iron ore mining.

In the agricultural areas of the east and north-west, the pyramids generally show a high proportion of young children. The relative balancing of the sexes in the active age group is an indication that both males and females have parts to play in agriculture.

The main livestock areas of the north show similar excesses of young children but in the active age groups, the abnormality of the pyramids in the male section points to large-scale migration to more prosperous regions (see pyramids of Alikalia and Kukuna in Fig. 3.4). On the corresponding female side there is an almost perfect gradation to older age groups.

The pyramids of main administrative centres - Bo, Freetown, Kenema, Magburaka, and Kailahun - are not very abnormal. They show places with stable populations geared towards administration, commerce and other activities characteristic of large towns. The largest and most important administrative and retailing urban centre, Freetown, has a less distorted pyramid reflecting the equal opportunities for employment for both males and females.

In the Freetown Peninsula, some urban centres (Kissy, Lumley, Murray Town and Wilberforce), show age-structures which are, in the main, similar to those of Freetown. These towns, suburbs of Freetown, tend to harbour the population over-spill of the capital. The well-developed means of transportation in the Freetown area means that staying in the suburbs and working in the capital creates no real problems. Thus migration from the suburbs to Freetown is practically non-existent. The pyramid of Wellington a town on the fringe of Greater Freetown, begins to show the influence of migration to Freetown - the distance/cost relationship has started becoming important. Farther away, in the Peninsula, migration to the capital increases. Hence the truncated nature of the active age groups of Hastings, Goderich and Waterloo. Waterloo is an example of a moribund town in the Freetown Peninsula and its pyramid closely resembles, in outline, that of Bonthe, another moribund town.

Waterloo, Hastings and Goderich have a relatively large proportion of old people; a direct result of the return of older people from Freetown to these settlements to enjoy a tranquil retirement and die. Other towns with this demographic characteristic are Kukuna, Mano, Largo and Pendembu. These are old traditional settlements with a relatively stable population. The profile of the pyramid of Mano, however, is distorted by the employment opportunities in Moyamba and Bo.

A comparison of the mean urban pyramid to that of individual ones shows that those of the large administrative centres (especially Freetown), are similar to that of the mean. This is understandable and points to the influence of Freetown and Bo on this mean pyramid.

In common with the national pyramid, one finds a strikingly small number of children between the ages of 10 and 14 years; a characteristic which has been noticed in other countries of tropical Africa. As T.E. Smith observed,

"in many of the towns of Tropical Africa, children under 5 are adequately represented and the relative deficiency in the total number of children lies in the 5 - 15 age-group, and particularly between the ages of 10 and 15".<sup>31</sup>

Table 3.8 provides age breakdowns of a number of towns having special features. These include diamond mining towns, (Sedu, Barma), an iron ore mining town (Pepel), an agricultural centre (Mambolo), a moribund town (Waterloo), a town from a predominantly livestock area (Alikalia), a traditional town (Pendembu) and administrative centres (Freetown, Bo). The large proportion of children in Waterloo, Mambolo, and Alikalia, contrasts with the relatively small one in Barma and Sedu. Waterloo and Pendembu have a fairly large number of older people. Waterloo, for example, has 17 times as many old people as Barma. But Barma, Sedu and Pepel have a disproportionately large percentage of their population in the active age group. It is evident, therefore, that moribund towns and urban centres

## AGE AND SEX INDICES FOR SELECTED TOWNS IN SIERRA LEONE, 1963

Indices	TOWNS							Pepele		
	F'Town	Barma	Sedu	Waterloo	Mambolo	Alikalialia	Pendembu		Bo	
<u>% of Total Population in each Age Group.</u>										
0 - 14	37.9	17.9	23.7	41.9	39.1	41.0	37.1	40.1	31.9	
15 - 64	59.08	81.7	75.5	51.3	58.9	56.0	56.6	57.5	66.7	
65 +	3.1	0.4	0.8	6.8	2.0	3.0	6.3	2.4	1.4	
<u>Dependency Ratio</u>	43.1	22.5	32.4	95.3	70.1	78.9	77.1	73.8	49.9	108
<u>Index of Aging</u>										
Male	8.1	5.1	4.4	15.8	6.4	6.0	16.3	6.2	6.6	
Female	8.6	9.7	2.9	16.5	3.7	9.0	17.6	5.7	2.2	
Total	11.5	7.5	3.5	16.1	5.1	7.4	16.9	5.1	4.4	
<u>Sex Ratio</u>										
Total	110.8	256.3	172.7	95.5	91.8	83.5	92.5	101.5	124.3	
0 - 14	94.3	91.9	72.9	105.0	107.8	115.2	93.4	98.5	87.0	
15 - 64	124.0	337.0	234.4	79.9	80.5	64.4	92.4	103.5	145.8	
65 +	88.3	575.0	110.0	100.0	188.0	77.7	86.8	107.5	264.3	
<u>Per Cent Male</u>										
Total	52.5	71.9	63.3	48.8	47.9	45.5	48.1	50.3	55.4	
15 - 64	59.9	81.6	75.5	49.0	58.8	75.0	56.5	57.5	66.7	

in purely agricultural areas have large proportions of young and older people; whereas mining towns have high percentages in the active age group.

In Table 3.8, the Dependency Ratio was calculated for the different towns from the formula:

$$\text{Dr} = \frac{(0 - 14) + (65 +)}{(15 - 64)} \times 100$$

Here also one finds the contrast between moribund and agricultural towns with high dependency ratios and mining centres with fairly low ones. Since

"the lower the ratio .... the more 'productive' the population because of a lower dependency load",<sup>32</sup>

then the population of the mining towns are more productive; and that of Freetown with an average dependency ratio reflects a stable population with diversified activities.

The Index of Aging was derived from the formula:

$$\text{Ia} = \frac{(65+)}{(0 - 14)} \times 100$$

The contrast between mining centres with low indices and moribund and traditional towns with high indices is also evident.

The Sex Ratio (Males / Females x 100) shows the small proportion of women in the active age group in the mining towns, in contrast to the excess of females in agricultural towns like Mambolo and Alikalia. This difference is also evident from the per cent male in the different urban centres (Table 3.8).

(c) Child-Woman Ratio: Because of the lack of figures on birth rates, the Child-Woman Ratio was calculated for each town from the formula:<sup>33</sup>

$$\frac{P_{0-4}}{f_{15-44}} \times 1,000$$

(where  $P_{0-4}$  is the number of children under 5 years of age, and  $f_{15-44}$  is the number of females between the ages 15-44). The ratios ranged from 825 (Gandorhun) to 366 (Gondama), with a mean of 610. Majority of the towns have ratios varying little from this mean. This group includes many administrative centres, both large and small. As these ratios are close to the mean, they may be regarded as normal, but what seems interesting is the distribution of those with abnormal ratios, that is, those with Child-Woman Ratios less than or greater than one standard deviation.

TABLE 3.9

TOWNS WITH RELATIVELY LOW CHILD-WOMAN RATIOS, 1963

Town	Ratio
Fomaia	403
Foindu	408
Gondama	366
Jaiama (Nimi Koro)	439
Kamakwie	470
Sukudu	401
Tombo	463
Yengema	392

The majority of the towns with relatively low ratios (Table 3.9) are generally found in the diamond mining area, that is, in areas with a relatively small proportion of children. Outside this, only Tombo and Kamakwie (both in the north-west) have such low ratios. In Tombo, it probably reflects the seasonal migration of the active male population to the fishing settlement of Yeliboya, resulting in a lowering of the birth rate. In Kamakwie, the movement of young Limba men to other prosperous areas without their wives possibly results in relatively low fertility.

TABLE 3.10

TOWNS WITH VERY HIGH CHILD-WOMAN RATIO, 1963

Town	Ratio
Gandorhun	825
Goderich	728
<u>Kabala</u>	733
Lumley	722
<u>Lunsar</u>	794
<u>Magburaka</u>	756
<u>Makeni</u>	740
<u>Port Loko</u>	737
<u>Pujehun</u>	732
<u>Rokupr</u>	740
Waterloo	763

(Towns underlined have hospitals)

Urban centres with very high Child-Woman Ratios (Table 3.10) are generally found in the livestock areas of the north-north-east, in a belt including Lunsar, Magburaka

and Makeni, and in the Western Area. The former two are important Muslim regions with widespread polygamy. Although it is sometimes believed that polygamy does not necessarily mean high birth rates, one feels that with the presence of hospitals in most of these towns, the crude birth rate is not only high but infantile mortality is considerably reduced. Also, a stable population is prone to have higher Child-Woman Ratios than unstable changeable ones like those of the diamond area. In the Freetown peninsula, the high ratio is a result of the long contact with Western civilization, and the availability of good and reliable medical services.

The different urban centres of the country have in most cases different and special demographic characteristics, but on the whole one may distinguish between centres with stable populations geared towards agriculture, animal husbandry, administration and commercialism, and those with unstable populations considerably influenced by large-scale in-migration. Whether in terms of Sex Ratio, or Child-Woman Ratio or in the analysis of the Age structure, this contrast is always very evident.

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SECTION B

TOWN SITES & INTERNAL PATTERNS

The uncompromising polemics between determinists and possibilists seem to continue unabated; though, of course, people have tended to make their position more ambiguous. Griffith Taylor regards himself as a "stop - and - go" determinist, Febvre <sup>was</sup> is a neo-possibilist, whereas some others think they are neo-determinists. In every field of geographical study, there is always a case for both determinists and possibilists, not least in settlement geography. The sites of some towns - at confluences, heads of navigation, bridges, fords, the junction of two physiographic regions - are essentially dictated by purely physical geographical agencies; other factors - nodality, communications, politics - determine the siting and location of others. Thus

"towns grow in particular places to discharge necessary functions, among which it may be that one is of primary importance, so that it may justifiably be regarded as the *raison d'etre* of the town."<sup>1</sup>

In studying towns sites, there are

"at least three aspects..... (which) have significance for the student or urban geography: the topographical features, as elements of fixation for town development; the influence of topography

on the plan of the town; and the created landscape of the town as it modifies the regional site by urban expansion."<sup>2</sup>

This created landscape, as a result of urban expansion, consists of the alteration of the physical site, and the resultant human patterns of land use and house types.

In this section, the sites and internal patterns of towns in Sierra Leone are discussed.

CHAPTER 4ELEMENTS OF FIXATION

Considering the "elements of fixation", towns of Sierra Leone may be divided into the following categories:-

## 1. Towns on Rivers:-

- (a) Confluence towns
- (b) Ferrying towns
- (c) Bridging towns
- (d) Twin towns due to the influence of rivers
- (e) Towns at heads of navigation
- (f) Towns at defensive river sites
- (g) Left bank sites
- (h) Other river sites

## 2. Towns at the Junction of Two Dissimilar Topographic Regions

## 3. Coastal and Estuarine Towns:-

- (a) Coastal towns
- (b) Estuarine towns

## 4. Nodal Towns

1. Towns on Rivers

Melvin says that

"in West Africa, it has been historically expeditious to locate urban centres where they best served the function of defence and where they were accessible to trade routes,

agricultural land and a potable water supply."3

Although this factor of water supply is not as predominant in West Africa as in desert areas like the Sahara (outside the Nile river valley), it is still an important factor for the siting of towns in Sierra Leone (Fig. 4.1) especially where rivers also serve as communication routes, and as means of defence.

(a) Confluence Towns: Examples of towns sited at confluences include Yonibana between the Polo and the Kamaranka streams; Port Loko at the fork of the Port Loko Creek and the river Bankasoka; Gandorhun between the Tungarai river and the Borya stream. Confluence towns fall into several classes:-

( i) towns restricted entirely to the space between the two rivers constituting the confluence. That is, at the confluence fork - Yonibana, and Gandorhun.

( ii) those found on both sides of one or two of the confluent streams. Port Loko for example has spread out on both sides of the Kamaranka stream and the river Bankasoka. Similarly, Matru has developed on the banks of the Tondovoi stream.

(iii) a few towns engulf the whole confluence. Moyamba for example occupies practically all the banks of the Yambatui and the Njawulai rivers. In the same way, Kenema has spread

out on all sides of the Dambaye and Salami streams.

The first pattern, is mainly associated with mature river valleys whose banks are susceptible to flooding. Buildings are not found close to the river since the presence of swamps, forests and other factors militate against their spread to the other banks at the confluence. In Yonibana, for example - especially the Old Town - the other banks of the Kamaranka and the Polo are either swampy or forested; the forested section being regarded as sacred society bush which is taboo.

The development of the second and third types reflect more favourable geographical conditions on practically all sides of the confluent rivers. This availability of land means that towns are less compact than those of (i) and ribbon development is common.

(b) Ferrying Towns: Before the colonial period, ferrying centres were more numerous than bridging towns as only a few of the large rivers could be bridged by primitive devices like the hammock bridge. Generally, ferrying settlements developed when footpaths converged on a river (Magburaka), when there was another settlement on the opposite bank (Magburaka-Makump, Moyamba-Salina Town), and at places relatively favourable for the siting of towns in an otherwise

negative marshy area. In fact

"the usual explanation for the choice of one bank over the other is given in terms of the contrast between wet and dry land."<sup>4</sup>

Examples of towns founded on such sites are Matru on the Jong, Sumbuya on the Sewa, and Kambia on the Great Scarcies. Ferrying points however, avoided areas of entrenched drainage because of landing difficulties, and the use of primitive methods. Only in a few instances, as in the case of Sumbuya, has a ferrying town developed on a site with incised drainage (Fig. 4.2). Actually, this town's growth was partly due to the presence of paired terraces on both sides of the river, with each pair acting as a landing platform at particular times of the year. During the dry season, from November to July, the lower terraces are utilized, but in the rains when the river floods, the upper pairs are used. Furthermore, the relatively flat land over-looking the river, and the fertile flood plains suitable for agriculture, made Sumbuya become both a nodal and a trading centre. The town's functional importance made ferrying inevitable.

(c) Bridging Towns: Before the proclamation of the Protectorate (1896), bridging towns were essentially found by small streams which could be easily bridged by primitive methods. With the introduction of wheeled transport, bridging towns have gradually increased in number; many ferrying towns

are now bridging centres. Bumpe, for example, was a ferrying point until a modern bridge was constructed in 1955. Similarly the ferry at Taiama, on the Jong, was replaced by a bridge in 1957. This change from ferry to bridge is increasing especially with the desire of the Government to construct bridges on all the main roads. But the replacement of a ferry by a bridge in a particular town is dependent on many factors like the importance of the town itself both as a commercial and a socio-administrative centre, and the volume of traffic on the road. This latter factor helps to explain the construction of bridges at Taiama and Bumpe on the Freetown - Bo road.

(d) Twin Towns: In Sierra Leone, as in the Akwapin-Togo Ranges of Ghana, twin towns are fairly common, and rivers are important factors for such developments. In Moyamba, for example, Salina and Kebbie towns are separated from the old town by the Yambatui; in the same way as the Bankasoka river makes old Port Loko geographically distinct from the new section. Sometimes when bridges replace ferries between twin towns, intercourse between the two sections becomes increased and easy. Thus the bridging of the Bankasoka in Port Loko resulted in closer intercourse between the two sections on either side of that river, just as the bridging of the Yambatui river increased mobility between the old town and the Salina section of Moyamba.

(e) Heads of Navigation: Towns at heads of navigation or break-of-bulk include Matru (on the Jong), Pujehun (on the Waanje), Sumbuya (on the Sewa), Rotifunk (on the Ribbi) and Kambia (on the Great Scarcies). Such towns are essentially nodal centres with the network of roads varying directly as the economic importance of the surrounding region. Generally, Martindale has observed that

"the primary reasons for location of cities are found in transportation. A break in transportation even if it involves no more than a transfer of goods from one carrier to another involves much equipment and many facilities. Thus, it is at the mouths or key points of rivers, meeting points on hills and plains and other such areas that city formations appear".<sup>5</sup>

Centres at heads of navigation may be sub-divided into:-

- (i) those whose waterways are navigable throughout the year, as at Matru and Kambia.
- (ii) those which can only be reached by sea at particular times of the day. This is generally common in regions affected by tidal fluctuations as in the case of towns like Port Loko and Gbangbatok which are situated at the heads of navigable creeks.
- (iii) those only reached by river at certain periods of the year (Sumbuya, Bandajuma). Such places are not affected by tidal fluctuations but greatly influenced by the seasonal variations in the volume of river. Sumbuya for

example can be reached by launches only during the rainy season - mostly between July and October - and for the rest of the year it is only accessible by roads. The importance of these towns, therefore, seems to vary seasonally.

We may also categorize towns at heads of navigation based on alternative communication facilities (Fig. 4.1, Table 1.4):-

(i) towns served by roads only - Matru, Sembehun, Sumbuya and Port Loko.

(ii) towns served by both road and rail. Here examples are Rotifunk and Waterloo. Generally, it seems that towns served by both rail and motor roads are commercially more important than those served by either rail or road (Table 4.1).

TABLE 4.1

TYPES OF TOWNS AT HEADS OF NAVIGATION

Alternate means of communication	Navigable throughout the year	Navigable at certain times of the year	Navigable at certain times of the day
Served by motor roads	Kambia Matru	Bandajuma Sumbuya	Gbangbatok Port Loko
Served by rail	=	=	=
Served by motor road and rail	Rotifunk	=	Waterloo

From the table, we see that as far as Sierra Leone is concerned, certain sites are merely hypothetical. This is a

reflection of the youthful state of our communication system, the absence of a rail network, and the country's small size which considerably reduces the number of examples available.

(f) Defensive River Sites: Defence as a factor for the siting of towns was very important during the periods of internecine warfare. A characteristic of these towns is that protection is generally offered by the river on one side, except in a few cases such as confluence towns, like Moyamba (on two sides) and Port Loko (on three sides), and centres situated in deep meandering loops. River site defence may be improved by:-

( i) the presence of interlocking spurs like those on the lower courses of many of the main rivers of Sierra Leone (Bandajuma, Daru).

( ii) the presence of incised meanders make bridging or ferrying difficult, and thus increase the defence of the town. Sumbuya on the Sewa (Fig. 4.2) is situated on such a site. The bridging of the river at that point has not yet been feasible and even ferrying was expensive and dangerous especially during the rainy season when the river is in flood.

(iii) very large and deep rivers make bridging, ferrying or fording by an enemy difficult. The Great Scarcies, for example has helped to protect Kambia from the pushful and

warlike people of the north-west in the same way as Tiber helped to protect Rome from her enemies. The three agents so far discussed form what is called "promontory sites".

(iv) the presence of tributary valleys give additional protection to a town (Moyamba, Port Loko and Magburaka).

(g) Left Bank Sites: The main types of river sites discussed may be seen on Fig. 4.3. The lower and middle courses of the Rokel were chosen for case study because being an area of topographic homogeneity, potential town sites were not seriously limited by topography. On this river, one has examples of bridging towns, ferrying towns, confluence towns and other towns founded because of many abstruse reasons - probably as agricultural collecting centres.

An interesting feature about the sites of towns on the Rokel is that most of the large settlements are mainly localized on the left bank of the river (Fig.4.3). Here the distribution and positioning of the main bluffs and larger river terraces help to explain this phenomenon.

Perhaps, in addition, historical factors may help explain this strange distribution of large settlements. Possibly the people south of the river were "civilized" and preferred living in towns than those in the north. Furthermore, they were sedentary agriculturalists practising some amount of commercialism whereas those in the north were essentially nomads.

These conjectures seem to conform with historical evidence.

For

"by 1600 the Temnes and Bulloms had merged with the Mani, and the country was divided roughly at the Sierra Leone river - Loko, Susu, Yalunka and Limba (in the north) against Temne, Bullom and Mani (in the south).<sup>6</sup>

The Mani on the south of the river were sedentary agriculturalists more prone to living in large centres than the nomads of the north. Hence in the south large settlements developed at favourable geographical points.

This peculiarity is also found along other rivers. The main towns of the Great Scarcies, the Little Scarcies, the Rokel and the Gbangbaia are on the left banks; they are on both banks of the Jong, and on the right bank of the Sewa, the Waanje and the Moa.

(h) Other River Sites: Apart from the types of river sites we have discussed, there are other river settlements which do not fall into any of the groups. Among such riverine towns are those founded because of social unconformity. In such cases, the river acts as a boundary between the conformists and the nonconformists; the Jew having no dealing with the Samaritan. Here Magburaka on the Rokel is a typical example. It was during one of the initiation ceremonies in Makump - on the opposite bank - that some people who did not wish to be initiated crossed the river and founded a settlement called Magburaka.

("Gburaka" in Temne means the uninitiated, and "Magburaka" the place of the uninitiated). The founding of the town on this site was mainly due to social escapism because the area is not very conducive to settlement development. The present long trail of ribbon development shows how buildings try to avoid both swampy areas and regions susceptible to flooding (Fig. 4.3). In spite of this site disadvantage, Magburaka has grown relatively fast partly because of nodality. It has now completely dwarfed all the settlements on the right bank. This phenomenon of new towns, better placed as regards trade and communications, superseding old ones has also been observed by Burghardt when he stated that the largest towns in the United States

"have developed precisely at the points where routways converge or where goods are transferred from one medium of transportation to another."<sup>7</sup>

A town, he concludes, that is a few miles from this point even if it had the early start, was superseded by a new town at the nodal point. Hence Magburaka surpassed the towns on the right bank (Mabala, Gberi and Makump).

## 2. Towns at the Junction of Two Dissimilar Topographic Regions:

Towns which have developed at the junction of physiographic regions often act as the meeting points of cultures and the centres of social and economic intercourse between

people from different geographical regions. Such towns are often scenes of conflict. Port Loko for example was the scene of many years of warfare between the Temne and the Loko. At times the town came under Temne rule and at others under the jurisdiction of the Loko. We may divide towns on such sites into four groups (Fig. 4.4).

(a) Towns situated at the junction of tidal swamps or flood plains and predominantly level or undulating land, like Waterloo and Rokupr. Waterloo for example, is situated mainly between the 50' and 100' contours but the land to the east is generally below 50' whilst to the west it rises steeply to heights of above 100'. The siting of the town may have considerably influenced its development as a market centre. Fish and vegetables which are products of the lowland to the east, and crops like cassava and potatoes from the highlands to the west, are all sold in the daily market of the town.

(b) Towns like Bwedu, Hangha and Falaba which are situated at the junction of predominantly level or undulating area and regions with steeply undulating topography, may be categorized into: those found in arable regions (Daru, Bandajuma), in livestock districts (Falaba), and in mining areas like Hangha which was previously the chrome mining centre (Fig. 4.5). All these towns have a certain common feature - a well developed market.

(c) Towns situated at the break of slope between steeply undulating land and areas that are predominantly hilly or mountainous. Here examples include Bwedu and Dia (in the east and south-east), Jaiama (in the diamond mining area), and Kamakwie (in the west)

"situated on the slope of a hill which falls to swampy land on the north-west, and south"<sup>8</sup>

In fact Kamakwie was a frontier town and the hilly section, in the east was a favourable site for watching out for enemies. Most of the towns in this class are found in frontier areas which were previously politically unstable. Here we may infer that the primary settlements (that is the present core of these towns) were on the predominantly hilly regions which could be easily defended. But as the importance of a defensive acropolis became less pressing with the decrease in inter-tribal wars and the explicit delimitation of the boundary between Sierra Leone and Guinea, most of these towns have tended to "migrate" to more favourable sites fringing these highlands. In most cases, these new sections superseded the acropolis which remained to carry out specialized functions. In Kamakwie, for example, the core-area is now associated with the hospital, the Mission compound and the Government Rest House, whereas the "new" section has become a centre for trade, communication, and commerce. Similarly in Segbwema, the old town is associated with the Methodist Mission, and the

chiefs' compound; the new section is identified with trade and local entrepreneurship.

(d) Few towns have developed on generally negative geographical sites like the junction of predominantly hilly or mountainous region and mountainous and steeply undulating land. The growth and development of Woama and Baiama on not dissimilar sites is a function of defence, mining and the easy availability of water (Fig 4.6). Such towns often occupy amphitheatre-like locations easily accessible by valleys which serve as communication routes.

### 3. Coastal and Estuarine Towns

Trade and defence have been important factors responsible for the siting of towns along the coast and at estuaries. Before colonial rule, defence was one of the paramount factors for settlement fixation but later, trade became more important especially along the coast. Hence large settlements developed in coastal and estuarine areas.

As regards their actual sites, shelter from waves and wind was very important since

"vessels may need to wait in a congested port for a berth to become available; they may be required to halt for customs or quarantine purposes; in some circumstances they may call to disembark by tender a few passengers and mails, without berthing at a quay, when again calm water is necessary."9

Thus bays, coves and protected estuaries were preferred to headlands for the localization of settlements.

(a) Coastal Towns: These include all coastal towns not actually sited at estuaries. Such towns (Shenge, Bonthe, Pepel, Kent, Freetown) are generally sheltered from the direct action of waves and wind (Fig. 4.7) by either coves and bays (Shenge and Kent) or islands (Bonthe, and Pepel). In some other cases, as in Freetown, protection is offered by a peninsula acting as a natural breakwater.

Some of these coastal towns like Freetown, Pepel and Bonthe have developed as ports due not only to the suitability of the site, but also because of the productivity of the hinterland (Freetown) and mining activities (Pepel). Freetown for example, developed as a port because of its natural endowments, and its accessibility by road and rail from all parts of Sierra Leone. In order to assist Freetown to handle the bulk of the country's trade, the natural harbour was improved. Pepel is a specialized port exporting ore from Marampa. But Bonthe is now virtually moribund; it lost most of its trade because of the silting of the harbour, the increase in the size of ships and the growth of the railway-road network which considerably reduced its economic hinterland.

(b) Estuarine Towns: Certain large coastal centres have developed at the estuaries of rivers - Kychom at the mouth of the Great Scarcies, Tumbu at the mouth of the Small Scarcies, Sulima

at the estuary of the Moa, and Taigbe on the Kittam (Fig. 4.8).

Estuarine towns are

"well provided with shelters - in that a long narrow body of water is protected by banks on either side."<sup>10</sup>

The protection of these towns may be improved by islands, especially windward ones, which help protect the town and its waters from strong winds. At Taigbe for example, the presence of many islands resulted both in the development of many deep and navigable distributaries and in protecting the settlement from strong winds and heavy seas. As Taigbe is not served by roads, contact with other areas is mainly by sea. Kychom, on the Great Scarcies, is sited on a similar site.

Sometimes, offshore bars and spits help give additional shelter to estuarine settlements. Sulima at the mouth of the Moa is a typical example (Fig. 4.8). The protection offered by the spits against swells and heavy seas coupled with the fact that the river was navigable some distance upstream helped the development, in the 1920's and 1930's, of Sulima as a port. The presence of custom houses and stores are proofs of the one time prosperity of the town. But the continuous growth of the spits, resulting in the gradual shallowing of the entrance to the harbour, have now made it impossible for large launches to reach Sulima. Consequently as launches only reach it at high tides, most of its trade has

been diverted to Freetown and, to a small extent, Bonthe. Here is a typical example of how geographical factors which at one time aided the growth of the town, now toll its death knell as a port.

#### 4. Nodal Towns

Because of trade and agriculture, many towns have developed at junctions (Fig. 4.1) including :

(a) Road/rail junctions which were change-over points from one medium of travelling to another. Since this involved break of load, storage facilities developed, and the consequent increase in the population of these towns resulted in the establishment of a market. People in the vicinity brought goods to sell either in the market or on the train. As the settlement's population grew and new functions added, it became an urban centre with a very marked sphere of influence. Bo, Makeni, Moyamba, Daru, Pendembu, Mano, and Kenema are localized at such sites, and their development post-dates the construction of the railway.

(b) The junction of roads, which before the colonial period were places where traders, gamblers, thieves and cannibals met. Consequently these junctions usually developed settlements which grew by leaps and bounds especially if trade increased and the hinterland was prosperous. The phenomenal growth of Koidu in the last twenty years for example has been a result of nodality and its location in the diamond mining region; buyers from Freetown usually met their customers either

at Koidu or Blama or Kenema. The growth of Ngananiya (meaning crossroads) is due to the importance of a road junction in the diamond mining area.

(c) Road termini where huts were built in which people sat, drank and chatted whilst waiting for lorries. In addition, huts acted as storage places for goods in transit. When the number of lorries visiting the terminus increased, more huts were built and the presence of a trader or a shop was the first sign of permanent settlement. Huts were then gradually changed to houses and by a process of accretion the town grew and subsequently surpassed older towns in the vicinity. In the 1920's for example, Gbangbaia (in the south-south-west) was bigger than Matru, but with the construction of a motor road to Matru in the 1930's, the town grew fast and it is now larger than Gbangbaia. Furthermore, it has also taken over many of the functional activities of that town. The transfer of the hospital is an example in point. Other towns found at such sites include Masingbi, Jaiama Nimi Yema, Alikalia and Gbangbatok.

Roads and railways themselves have also been significant elements of town fixation. In some areas the communication line followed the establishment of permanent settlements and joined them. Only in a few cases was the town side-tracked (Yonibana, Mange, Yele). Sometimes, where this happened, the town either became moribund, or if the distance from the main road was short, it tended to gravitate to the road. The old

settlement then either fossilized or decayed. This trend may be seen in operation at present in some centres like Matotoka, Mabonto, Mange, and Yele.

The importance of communications as elements of fixation is also evident from the ribbon developments characteristic of many Sierra Leone towns - Magburaka, Bo, Kenema, Freetown-and from the large number of street villages - Binkolo, Fadugu, Sinkunia.

Although one predominating factor may be responsible for urban location, most towns exhibit several factors (Fig.4.1). Magburaka, for example is not only a bridging (previously a ferrying ) settlement but also a nodal town, a marketing and an administrative centre. Kambia is at the head of navigation but it is also a ferrying point, a nodal and an administrative centre. Kabala is a gap town as well as a marketing, nodal and administrative centre. Similarly, Bo and Kenema are nodal towns, and important trading and administrative settlements. One also sees the interaction of these many factors in the siting of Port Loko, which is at a break of slope, a confluence, a head of navigation, a bridging point, and is also a nodal town, and an important commercial and administrative centre.

It is evident, therefore, that there is some classificational overlap; but this would have been still evident if towns founded mostly for defensive purposes were treated under a separate category. It was to minimize this that towns founded for defence were treated under the

appropriate sections based on the physical geography of the site.

Advantages of the physical classification

The classificational overlap shows that the sub-divisions of the elements of town fixation are arbitrary. Some people like Sylvester<sup>11</sup> have classified sites of towns on a functional basis. If one were to apply her method to Sierra Leone, an interesting functional classification of sites of towns in Sierra Leone would be evident:-

( i) Town Sites of Strategic Value:

1. Hill-top or steep slopes, e.g. Woama, Baiama
2. Cliffs with sea as defence or bluff with river defence, e.g. Moyamba & Bumpe.
3. Peninsula on coast or in river loop with difficult or easily defended land approach, e.g. Freetown, Kent, Mokele.
4. Island in sea, lake or river, e.g. Pepel, Bonthe, Plantain.
5. Frontier points capable of defence, e.g. Kambia, Falaba, Kabala.

( ii) Town Sites Suitable for Administration:

6. Centrally placed points within the region concerned or points easy of access or both, e.g. Bo at the centre of a purely agricultural region and also a route centre; Sefadu is centrally placed in the diamond mining area.

(iii) Town Sites Well Located for Trade and Industry:

7. River, canal, lake or sea port, e.g. Freetown, Bonthe, Shenge.
8. Bridging or ferry point on river or

strait, e.g. Magbile, Rokel, Magburaka, Matru.

9. Road centre or railway centre with easy access to important region - e.g. Kenema (with easy access to the forestry and coffee regions); Bo with access to practically every part of the country.
  10. Point at junction of dissimilar economic (and often unlike physical) regions, e.g. Kamakwie at the junction of steeply undulating land and land that is predominantly hilly; the steeply undulating land is mainly devoted to agriculture, and the predominantly hilly area to livestock.
  11. Point central for or adjacent to important agricultural, mineral or industrial raw materials, e.g. Koidu and Yengema (diamonds), Hangha (chrome), Kambia (rice).
  12. Point near to important source of power - (no example).
- (iv) Town Sites chosen for their Amenities:
13. Spas and watering places - (no example).
  14. Scenic centres - (no example).
  15. Sites in pleasant surroundings adjacent to large towns, e.g. Wilberforce, Lumley and Hill Station near Freetown.
  16. Sites in pleasant surroundings and comparatively secluded - (no example).

This classification also shows some overlap. Sylvester herself realized that when she said

"several of these features may be combined in one site, just as many functions may be exercised in one town."<sup>12</sup>

An important criticism against this functional classification

is that the physical siting of most towns is held secondary to their functions. Her classification is too theoretical for Sierra Leone; there are no examples of town sites chosen for their social amenities. This seems better suited to the highly industrialized countries where Town and Country Planning has been in progress for many years, and where fossil fuel or hydro-electric power is heavily utilized.

Generally it seems that in the north, water is a more important factor for the siting of towns than in the south. Furthermore defensive centres are closely related to the frontier regions. Actually, nodality as a factor of fixation is very evident in a north-west to south-east belt. A belt which roughly coincides with the Coastal Plain region, except that it includes the area around the railway as far as Pendembu. Bridge towns are mainly localized in areas of thick communication networks. That is, in a strip running west-north-west to south-south-east (Fig. 4.1). Whereas ferrying towns are mainly found on both sides of this belt of bridge towns. In rugged regions like the north-east, relatively flat areas are important localizing factors for town development (Fig. 4.4). In conclusion, it may be noted that although human factors may influence the siting of towns in Sierra Leone, purely physical ones are still more powerful.

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CHAPTER 5URBAN FORMS

In Sierra Leone, there are essentially two types of urban centres: those which have been created and those which have emerged.

"The former have been conceived and founded as towns whereas the latter have emerged without conscious planning".<sup>1</sup>

Generally, as Burke observed with regard to Dutch towns,

"there are far more towns in the latter group than in the former group, the 'planned' towns".<sup>2</sup>

Spontaneous (unplanned) towns tend to exhibit either linear growth or radial growth, whereas planned ones are often of the typical grid-iron or chequer-board pattern with secondary radial/linear development.

1. Grid-Iron Growth

The few examples of grid-iron growth in Sierra Leone occupy a coastal location in the former colony, a region previously associated with trading posts. These towns (Bonthe, Freetown, Waterloo) are essentially the result of the draughtsman's imagination and creation. In Bonthe, the east-west and north-south orientation of the streets closely follows the original plan drawn by G.J. Lawson in 1871. The only difference between his plan and the present layout of the town, is the evident fusion of lots (Fig. 5.1).

This conscious and systematic planning of the layout of such towns is evident in the growth of early Freetown. From the nucleus on the present site of St. George's Cathedral, twelve streets running inland from the coast were laid in 1792, and in that same year, the bush east of the settlement was cleared and a straight line, the present Kissy Road, was laid and blocks of land divided by avenues were cut perpendicular to the base-line.

In chequer-board plans, natural features are generally ignored; the streets cut across swamps (as in Bonthe) and other negative geographical regions. No wonder in Sierra Leone they are related to coastal raised beaches of the former colony (as at Freetown and Waterloo) where its development was relatively easy.

The location of these towns coincides with those areas first affected by Western cultural influences (Fig. 5.2). Since the traditional Sierra Leone town is characterized by narrow lanes and closely packed houses, it may be inferred that the rectilinear layout was an imported style and its implementation was only possible because of the advanced technology - even at that time - possessed by the British who could, to some extent, influence and change the landscape. The grid-iron pattern was also the best way of ensuring equal distribution of area - <sup>the</sup> idea of freehold ownership of land.

The grid pattern has merits and demerits.

"From the point of view of the individual there are many reasons for a man to place his building .... at an angle with buildings nearby and at some distance from them rather than directly in line and adjoining."<sup>3</sup>

Such a position which is advantageous, as regards air circulation and sunlight, is not possible in the grid-iron layout. This is a very great defect for, as the traditional houses are badly ventilated, a reduction in air circulation increases the incidence of air-borne diseases. Furthermore, the radial plan has certain advantages over the chequer-board plan in communication from the periphery to the centre. In Bo, which has developed on a radial plan, movement from the outskirts to the shopping centre is easier than in Freetown. Sometimes also, a particular area, like Waterloo, may be topographically more suitable for other types of street plans than

"insistence upon straight lines mounting hills and falling steeply into valleys".<sup>4</sup>

In spite of these disadvantages, the grid-iron has certain virtues. As a

" generic plan for disparate sites, it is eminently serviceable and if an equitable distribution of property is desirable (as was the case in Freetown during the 1790's), there is hardly any other plan conceivable. It can be extended

indefinitely without altering the fundamental pattern or the organic unity of the city."<sup>4</sup>

This pattern is easily laid out; hence it appealed to the Georgian colonisers. Unlike the radial and rectilinear plans, it is compact, and empty lots are not as numerous as in the former two cases. A comparison of the built-up areas of Bo (radial) and Freetown (grid-iron) shows that in the former there are many empty interstitial areas, whereas in the latter practically every lot is used.

The grid plan, as Stanislawski observed, is only possible in either a totally new urban unit (as was the case in Bonthe and Freetown) or an area with a centralized control. It may also indicate colonial status as was the case in Sierra Leone during the period when the chequer-board planned towns were built.

## 2. Unplanned Growth

Towns with unplanned growth generally

"show layouts ... determined by the ... patterns of agricultural land, though these in turn may to a greater or lesser degree clearly reflect the influence of site conditions".<sup>5</sup>

The main types of unplanned growth are: (a) radial growth, and (b) linear growth.

(a) Linear Growth: Although this is the predominant type in the country, we find marked clusters of it in the

north-west between Kambia and Magburaka; in the south-west around Matru, and in the east around Daru (Fig. 5.2). Generally however, linear growth seems to be predominant nearest Freetown. The gradual decrease in its dominance eastwards, with its practical absence from the eastern frontier areas, possibly shows that linear growth is related to regions of political and social stability where defence is not an important factor for town localization; That is, those sections which first came under British rule. The bulk of settlements with this type of growth are situated on predominantly level or undulating land; they are either few or generally absent in predominantly hilly or mountainous country. Furthermore, it is common along the main communication routes whose importance in trade and travel makes them vital elements for town fixation. At many junctions also, the type of growth is essentially the intersection of two rib plans (at Segbwema, Mano, Rotifunk, Baoma). In the Kabala area, with a predominance of radial growth, communications are relatively poor, urban centres are isolated and to some extent autonomous, and linear growth is practically absent.

There are essentially three types of linear growth: the simple linear type based on a highway, and usually referred to as the "rib plan", the rectilinear development of rib plans and the intersection of two rib plans (Fig. 5.2). The simple rib plan type of growth is predominant in the country; the others are generally more localized (Fig. 5.2).

One may postulate stages in the growth of linear towns:

Stage 1 is the rib plan, where houses and all other activities are clustered along the road as at Tikonko, Kukuna and Rokupr. These towns are generally settlements which are on the threshold between a village and a town.

Stage 2 is characterized by further development resulting in the intersection of two rib plans. This shows the growth of roads in other directions and a corresponding increase in the importance of the town. Here examples include Mano, Jaiama (Nimi Koro), and Rotifunk.

Stage 3 is reached when there is either a gradual infilling of the interstitial areas between the two rib plans, or a rectilinear development of rib-plan. Sometimes, stage 3 is partly the result of later improved planning by Government officials, and Missionaries. In Matru, for example, little is left of the old nucleus; new streets are being laid out. Actually, a well developed rectilinear rib-plan is similar to a grid-iron pattern but the difference being that the former is a "spontaneous" growth, whereas the latter is a conscious creation.

In regions with a predominance of linear growth, one often sees that around towns in stages 2 and 3, are clustered those which are characterized by both simple radial growth (one nucleus), and linear rib-plan growth. This is the case around Daru, Matru, Baoma, Sembahun (Fig. 5.2). Such clusters reflect the conglomeration of small settlements around larger

ones which are generally the social, political, and commercial centres connected to the neighbouring settlements by motor roads, tracks and footpaths. Generally, the large urban centres grow at the expense of those around, since they offer employment for people from the neighbouring centres.

Since radial growth is predominant in the eastern frontier areas, and linear growth is associated with coastal areas of political stability, it may be concluded that linear growth, resulting in the development of street villages and towns, is a fairly recent introduction; its development is based on the existence of roads, favourable geographical conditions and a cordial political atmosphere.

Linear development has merits and disadvantages. It is not as compact as the radial or grid-iron towns, and is not therefore the most suitable form in areas where defence is important in town development. In addition, the general absence of a central meeting place for communal effort like bridge building is also another disadvantage; individualism and anonymity seem to characterise it. Furthermore, in some towns experiencing linear growth, the parallel rows of houses along a street may practically cut off other subsequent rows from the main road. The long ribbon developments in some towns are unconscious moves to solve this problem.

Linear growth, however, has some advantages. Since most of the houses are along the main streets, intra- and inter-urban

movement is not a real problem. In essence almost everybody has the same advantages as regards proximity to the main streets and horizontal expansion (as in the case of the grid-iron plan), is easier than in the radial type.

(b) Radial Growth: This type of growth is sporadically localized and clusters are only found along the eastern frontier. Radial growth seems to be associated partly with areas of negative terrain where linear expansion is impossible because of spatial limitations in all directions, and partly with regions where defence was an important factor in the siting of towns. Hence radial growth is dominant in frontier areas and mountainous regions where compactness was a feature in town building because it minimized the problem of constructing walls and other defensive stockades.

There are generally three types of radial growth: those with one nucleus (Kamakwie), those with two nuclei (Kenema, Magburaka), and those with more than two nuclei (Bo, Sefadu, Makeni, Moyamba). Towns with a single nucleus are generally found in isolated patches all over the country; those with more than one nucleus seem to be regional centres as the more developed forms of linear growth (Fig. 5.2).

A look at Fig. 5.2 shows that:

(i) Towns with more than one nucleus are generally centres around which cluster the simpler types of radial growth and some types of linear growth (especially the rib-plan and the intersection of two rib-plans). Here Sefadu, Koidu, Bo, and Yele are typical examples.

(ii) The presence of towns based on the intersection of two rib-plans close to radial growth with multiple nuclei, shows that the latter are also related to areas of road convergence. The routes may connect a town either to many rib-plan settlements, or to many radially developed centres with one nucleus.

(iii) Most large towns of radial development have more than one nucleus (e.g. Bo, Magburaka, Koidu/Sefadu); it is only Kabala that has one. This partly reflects the poorsity of roads in the Kabala area and partly the fact that the town was previously a defensive acropolis with some amount of autonomy.

Unlike the linear types, where it was possible to postulate stages in their growth, the different types of radial growth may have developed ab initio. Towns which developed from a single village by a process of accretion will have one nucleus; but those which grew from two villages will have two nuclei; and in the generalized case, a town which developed from 'n' villages will have 'n' nuclei.

Similar to the planned and linear types of growth, radial development has both disadvantages and advantages. It is very difficult to enlarge especially in areas like Sierra Leone where technology is still relatively primitive.

"The most difficult shape ... to enlarge satisfactorily is the circular (radial) form with roads converging towards the centre".<sup>6</sup>

Added to this, the general movement of traffic towards the centre of the hub or hubs may result in traffic jams and the slowing down of general mobility as in Bo and Makeni. In Bo, where one of the hubs is centred on the Lorry Park and the Market, traffic congestion is frequent during the morning hours when people are either going to work or out of town. Another disadvantage is that because of the layout of the streets, only a few houses face the main streets; all the others are situated on lanes and alleys where wind circulation may be difficult, and insolation greatly reduced.

On the other hand, this type of growth is more related to physical factors than the others; the main streets follow gaps and passes which are natural routeways (Kabala, Kikuna). Movement to the centre of such towns is comparatively easier, though traffic jams are inevitable at certain periods of the day.

### 3. The Type of Growth most suitable for Sierra Leone:

Most towns and villages in Sierra Leone

"have just grown in a higgledy piggedy fashion, with no attention paid to contours, road drainage, breeze, or anything else, save that of grouping the houses together".<sup>7</sup>

In spite of this, one may postulate the most favourable type of urban growth for the country having in mind the available technology, house types, and capital.

In the grid-iron pattern

"no attention is paid to contours, breeze or natural beauty"<sup>7</sup>.

Consequently, soil erosion becomes rife and the ecological balance is tipped. The drains and gutters become filled with silt as in Freetown. In fact "the grid-iron street pattern ... is a result of shortsighted economy and of rationality untempered by aesthetics"<sup>8</sup>.

Furthermore, the chequer-board plan

"uses too many roads of equal importance and is expensive"<sup>7</sup>.

Thus it is not ideal for countries with more pressing needs than the development of a street pattern for aesthetic reasons. But its easy extension in any direction is advantageous in a country like ours where towns are inevitably going to increase considerably.

The radial type of growth has advantages of easy movement to the centre and in its development, physical conditions of site are considered but its difficulty of expansion (except along the streets) does not recommend it as the type suitable for a country, like Sierra Leone, on the threshold of urbanization.

With the linear type of growth

"'growing room' can be achieved more easily in horizontal oblong-shaped plan running parallel to the main road."<sup>6</sup>

Hence like the grid-iron, it may be easily extended resulting in a rectilinear development of rib-plan. Because of these

and the ease of construction even with crude implements, the linear type of growth seems to be the best type for Sierra Leone where political stability has made defence minimal but there are still pressing socio-economic problems. The construction of towns based on the whims and caprices of a draughtsman whose primary aim may partly be aestheticism is not suitable for Sierra Leone.

#### 4. Resultant Town Forms

Depending mainly on the type of growth, Sierra Leone towns are either compact, loose, or compact with secondary looseness.

Compact towns are essentially characterized by both radial growth and grid-iron growth, although some towns experiencing the simple linear type of growth may be compact. Consequently, compact towns are especially plentiful in the former colony and the frontier areas; in other sections of the country, they are very localized.

Loose urban forms associated with linear growth, are predominant in a north-west to south-east belt which includes Kukuna, Yonibana and Hangha; in other regions, they are very scattered.

Compactness with secondary looseness is very peculiar to the larger towns which grew by accretion. (Bo, Makeni, Moyamba, Kenema). Here, the nuclei, which are generally compact,

are linked together by incipient ribbon development and many interstitial areas are still empty.

The forms of towns in Sierra Leone are the result of the influence of both physical and human factors; but physical geographical agents are still paramount.

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CHAPTER 6THE INFLUENCE OF GEOGRAPHICAL FACTORS ON TOWN PLANS

One question which the student of urban geography should ask himself is

"what sort of settlement developed ... especially how did the topography control the ensuing pattern"?<sup>1</sup>

The importance of physical factors on the forms of towns is also stressed by both Pierre George—

"L'extension et la forme de la ville se modérent sur la cadre physique. La situation et le site s'associent intimement pour donner au plan son originalité",<sup>2</sup>

and Smailes -

"both in the changing outline of its perimeter and in the reorganisation of its internal pattern of land-use, the growing town reflects adaptations to the opportunities and limitations of its site".<sup>3</sup>

In tropical areas and other underdeveloped regions, the influence of the physical environment on town plans is more outstanding than in the developed countries where technology and capital have made possible large scale excavation of mountains and systematic reclamation of land. In underdeveloped countries man has been a pawn of the physical environment; he had never tried to influence it. Consequently, although human factors have important influences on town forms, the physical environment is the most potent. The physical agents include rivers and swamps, plains and highlands,

geology and soils. Other factors are, communications, the surrounding settlement pattern, and the related human activities.

### 1. Physical Influence on Town Plans

(a) The Influence of Rivers: Certain small confluence towns (Yonibana, Kailahun) with limited land for expansion are often compact. Even in some large towns that spread to the other river banks at the confluence (as at Moyamba and Port Loko), each inter-riverine section shows some spatial isolation and compactness; ribbon development and urban sprawls are practically absent. On the whole, therefore, confluences encouraged the development of compact settlements.

Besides inducing compactness, rivers also aid the development and growth of twin towns. Here, depending on the number of tributaries, they may divide a town into  $n$  sections when one has either  $n-1$ , or  $n$  or  $n+1$  tributaries. Twin development, for example, is feasible when there are two, three or four tributaries at the confluence. Examples of twin towns include Matru, Taiama, and Mano (Figs. 6.2, 6.3). In the same way, a town may be divided into three sections by rivers as at Kamakwie (Fig.6.1), Moyamba and Makeni (Fig.6.2). In these towns, although the different sections may be physically distinct, they all function as an organic whole. The interrelationship between the sections, may be facilitated by well developed routes and good bridges. In

Moyamba, Pujehun and Port Loko for example, bridges have linked the different sections in commercial, social and political affairs.

Sometimes, two or more towns have developed on opposite banks of a river; such towns may be autonomous in some respects, but have certain educational, administrative, commercial and social links. On the Waanje River, for example, four settlements developed within a radius of about two miles. These centres - Pujehun, Yoni, Massan and Gobaru - are all chiefdom administrative headquarters and the influence of rivers on their plans is evident from Fig. 6.1. The absence of a clear-cut boundary between Yoni and Massan (the two being linked by ribbon development) contrasts with that between Pujehun and Yoni, Gobaru and Pujehun, Yoni and Gobaru. The boundaries between these towns are essentially formed by rivers, the Waanje and its right bank tributary, the Makibi. In contrast, that between Yoni and Massan, is a purely human one; hence there is practically no physical limit to the westward extension of Massan and the eastward development of Yoni.

The poorly developed means of communication, and the general absence of pipe-borne water in the Provinces, has necessitated the localization of many of our towns close to sources of potable water supply. Consequently physical fragmentation of towns by streams is very common in the country.

But not all rivers encourage compactness and twin development, for in the case of larger and wider ones, (the

lower courses of the Jong, the Scarcies, the Rokel) multiple town development is discouraged. Here, bridging is difficult and expensive; ferrying is slow and risky especially when the river is in flood. Intercourse between the banks therefore would be minimal. For these reasons, Kambia, Rokupr, or Magburaka never developed as twin settlements, whereas Yonibana, Moyamba and Port Loko did. It follows, therefore, that over a critical maximum width of a river (say  $n$  yards), twin development is improbable. Thus twin towns are possible when the width of the river is less than or equal to  $n$  yards; and impeded when it is greater than or equal to  $n$  yards.

In some cases, larger rivers also affect urban forms by encouraging the sprawling of settlement along their banks, as at Kambia and Sumbuya. This, of course, depends on the suitability of the river banks. Where there are negative conditions along the bank, the town tends to develop on dry patches either near or away from the river, but any continuous growth is impeded (Kambia, Port Loko, Rokupr, Magburaka). Furthermore, these swamps encourage towns to stretch along roads which run either parallel (Port Loko, Yele and Mano), or perpendicular (Rokupr, Mambolo, Matru) or both parallel and perpendicular to the river bank, as in Magburaka (Figs. 6.2, 6.3).

(b) The Influence of Swamps: Because the draining of swamps

by primitive methods is difficult, and the reclaimed land is generally soft and liable to faults and subsidence, swamps have strong influence on the plan of the traditional Sierra Leone town. The cul-de-sac shape of Mambolo reflects their distribution and orientation. This town is sited on a peninsula of dry land along the Great Scarcies. Internally, the ribbon development along the streets is also dictated by the presence of swamps.

Swamps like rivers also lead to the fragmentation of towns. If swamps are perpendicular to the main axis of the settlement, they tend to sectionalize it. In Magburaka, for example, they not only influenced the town's general outline, but also inhibited growth in the east, north and south. Hence the town's linear development. In Sebgwema, likewise, swamps have influenced the development of the town's plan. The Nyeya river and its related swamps divide it into a northern and a southern section. In fact the western, eastern and south-western limits of Sebgwema are also dictated by swamps. Blama also, is divided into four sections by the river Honiyoei and its associated swamps. In the same way, the plan of Jaiama Nimi Koro is essentially the result of swamps which divide the town into three sections - each being a closely knit unit.

But marshes also determine the forms of the individual sectors; the compactness of the western and northern sectors of Jaiama contrasts with the loose rectilinear form of the central area. The former are hemmed in on almost all sides by

swamps, whereas the site of the latter is more spacious and less swampy. Similarly, the compact forms of Bwedū, Kailahun and Pendembu, and the patchy, isolated growth of Bo, Kenema, Sumbuya and Makeni, all partly reflect the effect of swamps. Even in planned towns (Bonthe, Waterloo) the influence of swamps is evident. In Bonthe, for example, recent spatial expansions have only been possible in the west; in other directions, swamps have halted its growth.

(c) The Effects of Topography: Topography also has some influence on the forms of towns (compact, loose, twin):

Compact urban centres, often defensive sites, are common in mountain areas where room for expansion is limited. In these towns (Yaradu, Falaba), since vertical expansion is not feasible, houses are built on every available piece of land. The settlements are therefore compact and generally have a maze of alleys with closely packed houses. In Bwedū for example, compactness and the absence of grid-iron or star-like road layout are evident; the street pattern resembles that of the old sections of Shiraz or Delhi. Alikalia shows similar urban morphological features - a circular form, many blind alleys, and closely packed houses.

Loose urban forms are, in the main, found in areas of rolling or flat land where the spatial limitations of steep slopes are absent and competition for land is negligible. In

places like Bo, Kenema, Blama and Pujehun which exemplify this feature, small topographic impediments like hillocks, streams and swamps are generally avoided instead of levelled or drained. Hence their amorphous shapes.

We may postulate several stages in the morphological development of loose towns:

Stage 1 is when one has many villages close to each other but separated by minor physical obstacles. Blama, for example, previously consisted of London Town (in the south), Jimi Town (in the east), and Blama village in the north. Whereas Bo was previously one of a number of villages including Kulanah, Ngalu and Messima.

Stage 2 begins by the development of communications linking these villages; intercourse between them increases and each starts showing spatial expansion mainly along the new routes. Many twin towns are now in this stage of evolution. In Pujehun for example, intercourse between Gobaru, Pujehun, Yoni and Massan has increased with roads and subsequent ribbon development. The subsequent fusing of these settlements seems impossible because they are not in the same chiefdom, and there is some amount of functional duplication among them.

Stage 3 is characterized by accelerated ribbon development and the gradual fusion of the villages. The different sections lose their physical separateness, and the whole settlement is then designated by the name of the most important village. Hence though Blama previously consisted of Jimi Town, London Town

and Blama village, the amalgamated whole is called Blama because Blama was politically the most important. Similarly the coalesced villages of Rogbani, Makama, Makeni and Teko are now collectively called Makeni.

Stage 4 is heralded by the draining of swamps, and the diversion of drainage. The interstitial areas are gradually built over and the town becomes an integrated whole. In Sierra Leone, apart from Bo, only towns (Bonthe, Waterloo, Freetown) of the former colony have passed through this stage.

Some towns in Sierra Leone (Alikalia, Yaradu, Peyima) because of defence, first developed on elevated areas, but as defence became less important and trade and communications grew, most of them have tended to gravitate to the valleys. In cases where the slopes are very steep, twin towns - separated by a dead zone along the slope - developed as in Kailahun and Hangha. Because of gradient, in Kailahun for example, different sections, Kissi Town, Kenema Town, Masagba and Masanta Town, are spatially distinct, and only linked together by roads.

Relief is also an important factor for the development of elongated valley towns since it encouraged the canalization of routes in valleys. These routes eventually became areas of ribbon development. In Kabala, Koidu and Sinkunia, examples of such settlements, expansion in certain directions was prevented by gradient.

(d) The Influence of Vegetation: In Mende and Temneland, especially, forests aid the development of compact settlements. These forests act both as means of protection for the settlement and as "society bushes". In some cases, towns (Musaia, Sinkunia, Falaba) are also encircled by huge cotton trees. The forests around towns are associated with evil spirits, and fear of being haunted even keeps enemies at arm's length. Since the nearby forests are generally society grounds, they are regarded as sacred, and it is taboo to cut down any of the trees. Failure to observe this, is believed to bring woe and misfortune to the offender. Any fairly large village, therefore, in Temne and Mende country has its own sacred bush which limits the expansion of settlements in some directions and thus assists compact development. Where people have not feared to incur the supposed anger of the spirits as in Bo, they have cleared the forest. Thus Bo has had more land for expansion than Kailahun or Yonibana. The compact nature of Sembehun, Yonibana, and the towns (Bwedü, Dia and Kailahun) of the Luawa chiefdom have all been affected by the sacred bushes which practically encircle them. (Actually, in the case of the towns of the Luawa chiefdom, compactness is mainly due to topography; forests only accentuated these limits).

In savana regions, loose urban forms may be assisted by easy clearing of vegetation as at Kukuna and Kamakwie.

But vegetation may also promote multiple town development. Since the forests around settlements are taboo, and

thus restrict expansion, with increased population a new section develops outside the precincts of the sacred bush. In Yonibana for example, the growth of the old town with many circular houses and marked congestion is limited in the south and east by "society bush" and in the west by a stream. These limitations may have necessitated the founding of the Rochen Kasumbali section, outside the sacred forest, along the rail.

## 2. Human Influences on Town Plans

(e) The Effects of Communications on Town Plans: Roads are sometimes important factors in the development of twin towns especially in areas where the settlement pattern evolved before the roads were established. After the establishment of routes, older settlements tend to gravitate to them. Consequently, the original settlement either dies or becomes fossilized. The former results in the development of street settlements; the latter in twin centres. Actually, when the direct road from Pendembu to Sandaru by—passed Manowa, the old town, whose growth is impeded by poro bush, ossified and a new centre, Jorhun section, grew up along the road. It is here that commerce is concentrated. From the distribution of circular and rectangular house-types in Blama, it is possible to conclude that the town has migrated to the railway. The large number of traditional circular houses in Jimi Town and London Town in contrast to the rectangular ones of Blama section (on the railway and the Bo - Kenema road), point to the possibility that

Jimi Town and London Town were the old settlements. Moreover, the orderly layout of Blama Town differs from the congestion of Jimi and London Towns. This development of new sections along roads is now in progress at Yonibana, Kamakwie and Kukuna.

Nodality also affects town forms, especially in the lowlands, by the ensuing ribbon development along the main roads. The amorphous star-like shape of Bo, Kenema and Makeni all reflect this influence.

(f) The Influence of Rural Settlement on Urban Forms: The forms of towns are also affected by the density and type of rural settlement. In areas of dense rural settlement, neighbouring villages may fuse through the communication-links between them. At this primary stage of evolution, the settlement pattern is "like beads on a chain", or, more appropriately, like a piece of fishing net with the knots representing villages. By subsequent growth, several villages may fuse to form one settlement. The present Bo previously consisted of many villages including Kulana, Messima, Dodo, and Njagborima. Similarly, Segbwema is a fusion of Kono Town, Susu Town, Jaweguihun and Kameilaguihun.

In areas of sparse rural settlements, development by fusion is not feasible. Urban growth therefore may be concentrated on the functionally most important village which is capable of attracting population from the others. As it grows, the other villages either decay or become moribund. Daru, in the Jawi chiefdom, may have developed into a town by attracting people

from the other contiguous villages. The geographical position of this town on the flood plain of the river Moa, and its establishment as a military base may have been important factors. In the same way, Kailahun emerged as the most important settlement (both politically and economically) in the Luawa chiefdom during the reign of its warrior chief, Kailundu, who conquered the surrounding villages. As it was also a nodal centre, it therefore became an important commercial town. This process of urban growth is now in vogue in the bauxite mining region of Banta chiefdom. In the late 1920's, at the time when the 1:62,500 maps were drawn, Mokbanji was a small village with less than ten huts; larger villages included Komende, Palima, Nyandehun, Jombohun, and Taninahun. With the development of bauxite mining based on Mokbanji, this settlement has outgrown all the others. It is now not only the centre of bauxite mining but also the commercial centre of the whole region. With time, its growth will have adverse effects on towns like Gbangbatok and Gbangbaia about twenty miles away. Even now people come from these places to buy kerosine, petrol and some consumer goods from Mokbanji. As Siddle observed,

"Mokbanji, a mushroom settlement ... is growing rapidly outside the entrance to the washing plain ... Two years ago, the settlement had only 3 huts. The lure of quick returns has brought people to the vicinity of the mine ... Mokbanji is, in fact, an embryonic form of the type of settlement which Sefadu-Koidu and, to a lesser extent, Lunsar

have become: sprawling  
unplanned towns."5

On the whole, urban compactness may be influenced by defence (Daru), spatial congestion in mountain areas, (Yaradu), sacred forests engulfing the town (Bwedu, Dia), and confluences which set limits to the town's horizontal expansion (Moyamba). Whereas twin towns may partly be the result of swamps and rivers which are perpendicular to the alignment of the town (Kamakwie), or to steep slopes between two dissimilar physiographic regions (Sumbuya and Hangha). Extreme ethnic and sectarian segregation may also cause twin development (Njaluahun near Segbwema).

Thus urban plans in Sierra Leone are partly affected by geographical factors and partly by purely human ones notably, defence, tribal characteristics, the economic activities of the area, and the type of rural settlement.

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## CHAPTER 7

THE EFFECTS OF URBAN EXPANSION ON ITS SITE

Although the physical environment greatly influences urban forms, the settlement as it grows may also alter the physical conditions of the site. In this chapter, we shall examine how towns in Sierra Leone have modified their sites.

For

"in the process of urban development, ... sites may be considerably modified. Stream courses may be diverted or carried underground, marshes drained and mud-flats reclaimed, and minor irregularities of relief such as small, steep-sided valleys may be effaced by dumping refuse till they are filled in".<sup>1</sup>

Because of the youthfulness of urbanization and the recent application of modern technology in Sierra Leone, the physical conditions of the sites of towns are, in the main, unaltered - swamps are avoided rather than reclaimed, and any minor relief irregularities are not modified. There is no serious population pressure on the land, and the tripartite competition between settlement, recreation and agriculture is not yet very evident. All these factors tend to reduce the human determination to radically change his physical surrounding.

We may note, however, that the mere idea of building on a piece of land, involves changing the original conditions of the site - whether it is a hamlet, a village, a small urban centre, a town, or a city. What is therefore important is

the degree of change (the clearing of the vegetation is a less radical alteration than terracing and the reclaiming of swamps or mud-flats). In the villages of Sierra Leone, only small features like ant hills and minor undulations are transformed; even the vegetation is influenced only to a small extent. This may help to explain the development of street villages - strassendorf - in the north-west, and the circular villages in the forest regions.

As the settlement grows and defence becomes minimal, the forests or the high grass around it are gradually cleared, the contiguous swamps are used for agriculture, but the locations of buildings are still mainly dictated by the physique of the site. Most of the urban centres with populations less than 2,000 fall into this group.

Even in some large towns like Kabala, Makeni, and Kenema, the site conditions have been little affected. In Makeni, for example, the swamps within the townscape and fringing the CBD are not reclaimed (they are used for horticulture) and the hills around are not utilized for private buildings. Similarly, the swamps between the Yogomaia section and the Kabala area of Kabala have not been built-over, nor have private residential houses crept up the steep slopes of the hills sandwiching the town. In practically all our towns, - e.g. Bonthe, Bo, Kenema, Koidu, Yonibana, and Kambia, (Figs. 8.1 & 8.3) - swamps and rivers are parts of the urban morphology. In these towns,

instead of altering these features, the inhabitants tend to justify their existence. The swamp in Kabala for example, is believed to be the home of a snake spirit. If this area is drained, it is believed, the whole town will be afflicted by plague, and the individuals responsible will die. In the same way, a small hill in the north-west was not, until recently, built-over because of the belief that all houses which had been built on it had been destroyed by the resident demon. People give evidence to justify this point; but a few years ago, the government took over the hill for the construction of teachers' quarters. These houses were not demolished by the spirit. Similarly in Magburaka, swamps are not reclaimed for building because of the feeling that such buildings will be destroyed by the resident spirit and the inhabitants will die. In many other towns also, swamps are often associated with ~~marmaids~~, and hills with the abode of spirits.

As the settlement grows and population pressure increases, land starts becoming a scarce commodity, and the site is slowly remoulded. In Bo, for example, not only has the 'society bush' been cleared and the Kobongoi stream channelled, but the swamps are now gradually being reclaimed. In Bonthe the north-south trending streets pass through a swamp, Heddle swamp, on high embankments. Here although the swamps are not drained, the building of embankments shows some human effort at

changing the environment. The reclamation of the land within the sea wall in Bonthe is also another example. In Koidu/Sefadu, a few houses have been built on the hill slopes, but the swamps are still unaffected. In all these provincial towns, the only marked examples of alterations in the site are found in the government residential quarters which are often on hills. On the whole, however, the environment is only slightly modified, except in Freetown where the site has been considerably changed. All the rivers flowing through it are channelled, the lateritic soils of places like Brookfields have been built over, and private residential houses are gradually creeping up the mountain slopes. Fourah Bay is being reclaimed, and the mountain sides quarried.

In the country as a whole, although the sites of towns have remained practically unchanged, towns built on a grid-iron plan seem to have influenced their site more than those with spontaneous growth; for the construction of a grid-iron pattern presupposes some determination to alter the environment. But even here, the influence is minimal. Because in places like Freetown and Waterloo, the rectilinear system is discontinued in the face of serious physical impediments like the Tower Hill in Central Freetown. Generally, the absence of certain imperatives like population pressure and the latent state of competition between agriculture and settlement for land, have not necessitated the changing of the physical conditions of town sites. What has happened in a few of the towns is that the

landscape around them have been altered by mining (Lunsar and Koidu), and shifting agriculture on mountain slopes (Freetown).

Although the site modifications of towns in the country are relatively small,

"there have sometimes been secular changes in site conditions, especially along coasts and in estuaries that have profoundly affected urban fortunes".<sup>2</sup>

Sulima, it may be noted, was an important port in the 1920s, but the westward extension of a spit at the mouth of the Moa, has helped to stifle it. Similarly, the silting-up of the approaches of Bonthe led to the anchoring of ships a few miles away from the town, and also put a limit on the size of ships that should visit the port. For the same reason, ships stopped reaching York Island (near Bonthe), about forty years ago. In all these towns, the presence of old empty ware-houses may remind the visitor of their one time prosperity; now they are all moribund.

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URBAN LAND USE

Morphologically, the geographical character of a town

"finds expression in the physiognomy of townscape, which is a combination of town plan, pattern of building forms and pattern of urban land use".1

Town plans and the pattern of building forms are discussed in other chapters of this thesis. Here we are concerned, in the main, with urban land use.

An urban centre may be regarded as an organism consisting of many parts all of which work in harmony for the proper functioning of that organism. The urban landscape at any one moment therefore, exhibits the results of adjustments between the physical and human factors of the site. Since man is continuously changing and altering his surroundings, then townscape is dynamic and very mutable. The rate of change of the urban infrastructure seems to be related to the type of society; cities in modern industrial countries have undergone great morphological adjustments. From being purely administrative and defensive towns, the larger ones have also incorporated industries and commerce into their townscape.

Man's imprint on the urban landscape gives rise to activities and land uses that have spatial dimensions and in some cases occupy specific sections of the town. In consequence, Dickinson concludes that

"each city, falls into clearly defined zones, each distinct in its predominant combination of

land uses and consequently as to its economic and demographic character. These zones, in their location, extent and character, depend on both physical and historical conditions."<sup>2</sup>

Generally, some urban centres in Sierra Leone are either incipient, or fossilized; some others have experienced mercurial growth and functional expansion, whereas a few, especially in pre-industrial countries, are functionally large villages. Despite these varying degrees of urban state, the land use of our towns may be functionally divided into:-

#### Main Land Uses

- A. Commerce
- B. Administration
- C. Residence

#### Other Land Uses

- D. Recreation
- E. Religion
- F. Medicine
- G. Transport
- H. Urban open spaces (cemeteries, parks, swamps)

#### A. Commerce

Because of the youthful state of urbanization in Sierra Leone, the different types of retail structure categorized by people like Proudfoot,<sup>3</sup> Bartholomew,<sup>4</sup> and Berry<sup>5</sup> for temperate and well developed urban centres, are not in most cases applicable to Sierra Leone. One important feature of

the commercial structure of Sierra Leone towns is the CBD which Weber<sup>6</sup> defines as

"the major and central area of commercial activity in a city".

In addition, there is usually both the outlying business centre which

"represents in miniature, the same type of retail structure characterising the central business district",<sup>7</sup>

and the isolated all-purpose shops serving areas within easy walking distances.

1. The Central Business District:

(a) Shape: Although Bartholomew says that the CBD is

"a somewhat vague area with no definite boundaries",<sup>8</sup>

attempts have been made by people like Gallion and Eisner<sup>9</sup>, Hartman,<sup>10</sup> Murphy and Vance,<sup>11</sup> to delimit this district.

One feature which seems to emerge from all their attempts is the great importance of commerce over other land uses. Since data are not easily available in Sierra Leone to help calculate indices like the Central Business Height (i.e. central business space divided by total ground floor space) and the Central Business Intensity (i.e. central business spaces divided by total floor space multiplied by 100), only the visual concentration of commerce is used to delimit CBD's in Sierra Leone. Generally, research has shown that there are as many different CBD shapes as there are towns (Figs. 8.1, 8.2, 8.3). Murphy

and Vance, for example, observed that

"in total aspect ... CBD's differ from city to city in size, in shape, in orientation, in location within the urban area, in land use and in other aspects as well".<sup>12</sup>

In spite of these varieties in outline, people have postulated idealised CBD shapes. Hartman claims that it is a "tilted square or a diamond", whilst Murphy and Vance say it is

"more nearly one of a four-pointed area with concave sides, or better still ... a quadrate cross".<sup>13</sup>

The quadrate cross model is not, in the main, applicable to Sierra Leone towns which are generally unplanned. Many of their CBD outlines - Makeni, Port Loko and Kenema - fairly resemble Hartman's diamond or star-like model (Fig. 8.4). Some others are linear and possibly reflect the greater importance of one street over the others. For

"when the two intersecting thoroughfares differ considerably in importance, the district becomes elongated along one axis".<sup>13</sup>

as in Matru, Magburaka, Kambia and Rokupr. Furthermore, where there are "fairly equivalent intersecting axes" a sort of T-square outline (Bonthe and Lunsar) is common.

These CBD shapes seem to be related to

"site, regional setting, city area, city population, extent and buying power of trading area, city age, economic support of the city, wholesale trade, retail trade and other general background information";<sup>12</sup>

to the general street lay-out, railways and roads, water bodies and swamps, areas devoted to public buildings and relief. Of these factors, the latter four inhibit CBD expansion (Fig.8.5) whilst the former ones act not only as areas of CBD development, but also encourage commercial ribbon growth.

(b) Locations of CBD's within Urban Areas: For many reasons, including purely historical factors and the socio-economic importance of a town in its hinterland, CBD's occupy different positions in towns (Figs. 8.1, 8.2, 8.3). In some cases (Bo, Kenema and Makeni) the commercial area is almost central. This is partly because these towns have developed as important trading and nodal settlements having road-links with the surrounding areas. Sometimes, the centrality of the commercial centre is distorted by the differential rate of growth of sections of towns. In Matru, for example, the rapid growth of Bale section, north of the Tondovei stream, has completely dislodged the CBD's centrality.

In many Sierra Leone towns, however, the CBD's are peripheral. A few of such towns are either located on large navigable rivers (Kambia, Rokupr) and creeks (Port Loko), or by the sea (Bonthe). This is so because intercourse with the surroundings is mainly either by water (Bonthe), or by water and land (Kambia, Rokupr, Port Loko, Matru). In the former case the CBD is mainly parallel to the coast reflecting the

importance of the sea front; but in the latter, its alignment is perpendicular to the coast though the whole structure is in most cases tied to it. Only in the case of Matru has relief made this coastal anchoring of the CBD impossible (Fig. 8.4).

Swamps may also account for the fringing location of some CBD's. In Magburaka and Lunsar for example, they have not only prevented commercial expansion, but also halted residential growth in certain directions.

Generally, therefore,

"with very few exceptions, the central retail shopping district is found at the very convergence of all transportation and traffic channels".<sup>14</sup>

A peripheral position shows the influence of swamps and the increasing importance of water transport, which in some cases becomes the only means of communication-links with the town.

(c) CBD Land Uses: Land use in CBD's has been divided into three main groups by Murphy, Vance and Epstein<sup>15</sup>:-

(i) Retail business uses - food, clothing, household, automative, and variety stores.

(ii) Service, financial and office uses - transportation and parking uses, hotels and banks. That is, other CBD activities .

(iii) Non-central business uses.

Land use in CBD's in Sierra Leone may be analysed on these basis.

(i) Retail business uses: These uses seem to fall

into a hierarchy ranging from supermarkets through commercial firms to petty traders. As supermarkets are only found in Freetown, they are not therefore important in CBD lands uses in the country. European commercial firms were formerly more widespread than at present.

Produce purchasing was an important element in their trade, but now that the produce is mainly handled by the Sierra Leone Produce Marketing Board, many branches have closed, the retail element insufficient to cover overheads. Only in certain towns (Bo, Koidu, Kenema, Bonthe) where local purchasing power is exceptionally high are they still present.

Locationally, the firms seem to occupy the most advantageous places in the CBD (Figs. 8.8, 8.11). Where the CBD is linear as in Bonthe, they are generally sited close to the centre of gravity of the commercial lamina. In other cases (notably Makeni) however, they are centrally sited close to the main communication hub. Occasionally as in Bo, the main commercial firms are peripheral to the CBD. This is understandable since they are located at a road junction close to the railway station. Here geographical centrality is tipped by communication advantages which also help explain why, previously, commercial firms in places like Matru, Blama and Sumbuya were located either along main road axis, or a waterfront. Firms sell goods (mainly consumer) either to the Lebanese, Indian and African traders, or direct to the petty traders.

Next in the commercial hierarchy are the African, Lebanese and Indian traders who either buy their goods from the local firms, or direct from Freetown. This group constitutes the most important element in the CBD land use in the country. Among these retailers, the bulk of commerce is still in the hands of the Lebanese who generally cluster along the main roads of towns like Port Loko, Bo, Lunsar and Kailahun. This clustering is sometimes because sons set up shops close to their fathers. Sometimes, African shops between two clusters of Lebanese shops have been stifled and have closed down (Fig. 8.11). For purely historical reasons (they being engaged in commerce before Africans and Indians), their establishments generally occupy conspicuous sites in the CBD (Figs. 8.6, 8.7, 8.10), and where there are commercial firms, the Lebanese shops are located close to them (as in Bonthe, Bo and Makeni).

Although Indian traders came late to the commercial scene and are only found in a few towns, they have, by high bargaining power, occupied advantageous positions in the CBD similar to those of the Lebanese.

Because of the generally selective positioning of European commercial firms, Lebanese and Indian shops, the African traders, who sometimes give only a section of the frontage of their house to commerce, have to fill in the gaps in the CBD's commercial infrastructure.

The retailers (Indians, Lebanese and Africans) sell goods ranging from provisions and ready-made carpets to plastics. They lack functional differentiation for one can get one's requirements from a single shop. As this group constitutes the bulk of the commercial activities in the country, this absence of specialization may be regarded as an index of the immature nature of commercialism in Sierra Leone. The retailers, except in the case of Indian traders, employ practically no other persons outside the elementary family. A Lebanese shop for example, is staffed by the father and his wife, assisted in some cases by their children and relatives. This means that as regards retailing there is practically no journeying to the CBDs for work.

Though petty traders are found in all sections of towns in Sierra Leone, the greatest concentrations are in the CBD (Figs. 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11). Actually this is logical as the petty traders not only buy from the shops (thus trading close to them reduces transportation cost), but they also cater for the same public as the bigger commercial concerns - activities serving the same hinterland always locate at the centre and close to each other.

The CBD is also a favourite place for tailors who sit on the verandahs of the shops coaxing customers to give their materials for sewing. This association is very rational.

Observations generally show that, in most cases, there is close spatial contiguity between the commercial core and the

daily market (Figs. 8.1,8.2,8.3). In Port Loko and Kabala for example, the market is actually within the commercial core; whereas in Kambia, Bo, Magburaka and Matru, it is peripheral. In Bonthe, however, it divides the commercial area into two detached portions; but in Lunsar it is completely isolated, though linked to the CBD by a ribbon of petty traders. Most towns, in the main, have a single daily market but some large centres such as Makeni, Bo and Freetown have more than one. Perhaps with the expansion of some towns, the necessity for creating two or more identical functional units becomes imperative, especially if such centres, like markets, are frequented at least twice a week by a large part of the town's population. Incidence of visits to the daily market seems to be the function of many related factors. As Curry observed,

"the frequency with which a single consumer procures a single good considered in isolation is dependent on the rate of its consumption as well as the average level of stocks held at home. These stocks will be related to the bulk, perishability, price and size of the standard pack of the good in question".<sup>16</sup>

In these daily markets there is generally a tendency for people selling the same goods to occupy particular sections of the market (Figs. 8.9, 8.11). This is not just natural, but is in conformity with Bunge's theory of competitive market areas.

(ii) Other CBD activities: Retailing is not the only activity in the CBD, for banks are usually within it. This

association between financial and commercial uses in the CBD is understandable because banks are most patronized by entrepreneurs, who in turn, may negotiate loans from them. If these two activities were spatially isolated from each other, transportation problems between them may have increased considerably.

In fairly well developed CBD's, like those of Freetown, Bo and Makeni, hotels and restaurants are also present. Workers in CBD activities need places where they can have lunch and some recreation during break.

Thus service, financial and office uses in the CBD are all closely related to the commercial activities of this zone.

(iii) Non-central business uses: As most urban centres in the country are incipient, not all buildings in the commercial core are shops, offices, restaurants, hotels and banks; some are still residential (Figs. 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11). Dwelling houses are generally absent from the centre of the CBD; they tend to increase outwards, until around the periphery they become more important than CBD uses. With time it is possible that residential buildings may be completely replaced by central business establishments. This is now the trend in Freetown.

(d) Dynamism of the CBD: One could postulate stages in the evolution of the CBD's in Sierra Leone.

Stage 1 is characterised by the single isolated all-purpose village shop which is found in many villages throughout the

country.

Stage 2 is reached when there are many isolated all-purpose shops scattered all-over the town. Here there are overlapping spheres of influence and competition becomes latent. This stage is found in most large villages and small urban centres like Yonibana (Fig. 8.7).

Stage 3 is heralded by increased competition between the isolated shops. Consequently, some close down, and a few, possibly because of geographical location, become more important, and in accordance with the gregarious nature of similar activities, new commercial enterprises develop close to them. Here one has the birth of a CBD. Such embryonic CBD's are common in towns like Matru, Pujehun, Rokupr.

Stage 4 is characterised by more commercial complexity (which includes the development of specialized shops like drugstores, shoe shops and restaurants); a youthful CBD evolves, as in Bonthe, Blama, Kenema, Lunsar and Makeni.

Stage 5 the matured stage of the CBD - is heralded by the presence of supermarkets, tall buildings, more specialized shops and the use of multi-storeyed buildings for purely CBD uses. The only example of a matured CBD in the country is Freetown whose commercial centre is still evolving and becoming more complex.

Thus

"as a city grows in size and importance, the central district tends to assume more and more the function of a shopping and style

centre as well as of a specialized personal and professional service district."<sup>17</sup>

Besides evolutionary dynamism, the internal make-up of the CBD is also very changeable. About ten years ago, European commercial firms were an important part of the CBD's of all the large towns, but now only a few still have them. Similarly, Saturday night trading in Bonthe, which was very popular in the 1940's and 50's, has disappeared. Another important change which is common to almost all the CBD's in Sierra Leone is the increase in the number of petty traders, reflecting the feeling that trading of any sort

"frees one, at least from the arduous physical tasks of farming".<sup>18</sup>

For many reasons, some CBD's have grown very fast (e.g. those of Bo, Kenema, and Lunsar), but on the other hand, some are now mere shadows of their former prosperity (Kambia, Bonthe and Magburaka).

## 2. The Outlying Business Centre and the Isolated

All-Purpose Shops: As an urban centre expands, there is a corresponding increase in the distance from the outskirts to the CBD. One therefore has the development of secondary commercial areas like the outlying business centres of the large towns. Furthermore, the number of isolated all-purpose shops increases and there is a multiplicity of hawkers. Justifying this is the fact that

"within a town any real grouping of purchasers has an equal willingness

to travel to the nearest shops  
.... A consumer will usually go  
to the nearest centre to make  
purchases".<sup>19</sup>

Because of the poorly developed state of public transport,  
in the country, difficulty of movement within or between towns  
is considerable. Under such conditions,

"some purchases of low order goods  
are made at high order centres,  
while shopping there for high order  
although a low order centre is  
closer their home".<sup>20</sup>

Here the desire of the housewife to reduce walking-time and  
distance is evident.

Because of the recency of urbanization in the country,  
examples of all the secondary commercial units distinguished  
by Proudfoot,<sup>21</sup> are not found in Sierra Leone. It is only in  
Freetown that we may even find close approximations but in  
others, only the outlying business centre and the isolated  
all-purpose shops may be present.

The outlying business centre is only found in the relatively  
large towns like Bo, Kenema and Makeni (Fig. 8.1). That is,  
in places with a population of over 12,000. In such shopping  
areas, European commercial firms are absent and the whole  
trade is in the hands of African and Lebanese traders. Tailors  
and petty traders found in the CBD, are also present.

The isolated all-purpose shops are found in all large  
centres and their number may safely be regarded as an index of  
the urban status of a place. Besides their locational advantage,

for serving the immediate hinterland, the relationship between the buyer and the shop owner is very cordial and informal contrasting with the formal, rigid one characteristic of the commercial transactions of the CBD. In addition, the language of communication is the local dialect which suits all the people of the vicinity whereas in the CBD, it is Krio or patois. The former type of relation is preferred by most people for customers may take goods on credit basis. This helps to lubricate the relationship between people in a particular neighbourhood.

#### B. Administration

One of the main factors for the growth of towns in Sierra Leone is administration. Study of the urban rank-size graphs (1927 and 63) of the country (Fig. 2.5) shows that majority of the larger towns are administrative centres (see Chapter 2). In fact services - administration, education, etc. - form the second most important functional group in towns (see Table 1.10 of Chapter 1). Thus administrative buildings are notable features in our towns. As in the case of commerce, administration falls into a hierarchical pattern:

1. Chiefdom administration
2. Town or City councils
3. District and Provincial administration.

Some towns such as Bo and Kenema have all the types but most centres have only one. Locationally, each administrative group generally occupies a different section of the town as in Makeni and Bo. In a few cases, however, they are found together. Here

Bonthe is a typical example.

1. Chiefdom Administration: Native administrative buildings are always within the actual precincts of the towns (Fig. 8.1, 8.2) although their precise locations differ. Sometimes a central position just fringing the commercial core is preferred. This is the situation in Matru, Magburaka, Kenema and Kambia. In the first two, it is just off the main arteries of the town, but in the latter cases it is sited at a main road junction. A peculiar example of the relationship between main road junction and chiefdom administration is at Kukuna where the Native Administration (N.A.) Court Barri (building) is at the end of a sort of cul-de-sac. Where centrality is impossible because of the development of arterial commercial areas, as in Bo and Lunsar, the N.A. buildings are usually found just off the commercial ribbons. In Lunsar, the positioning of the N.A. buildings between the market and the CBD may partly explain why the CBD never extended as far as the market (Fig. 8.2).

But examples of asymmetrical locations of N.A. buildings are not absent in Sierra Leone. In Makeni, for example, these buildings are in the extreme south along the Magburaka road. A more abnormal siting is in Yonibana where the N.A. Barri is off the main road in the fossilized Old Town. Here, this location may only be explained in terms of historical circumstances (see Chapter 10).

As the N.A. offices are designed to serve a whole chiefdom, geographical centrality regarding location in the chiefdom

headquarters may not have been an important siting factor but for the fact that poor communications within the chiefdom, force tribal authorities to stay in the headquarters whenever the native courts are in session. A central location in the town may therefore give all of them equal walking distances to the courts.

2. Town Council: Since the town council's functions are in the main limited to the town, an equatorial position is a very important locational factor. It is possibly because of this that town council buildings are often in the CBD. This is the case in Makeni and Bonthe and was also true of Bo before the new council offices were built in the south-west, near the Coronation Playing field.

3. District and Provincial Administration: These two administrative systems are generally found in the same section of towns - functional complementarity results in spatial contiguity. Locationally, they are peripheral and in most cases close to the government residences, where there is land for expansion and the surrounding is relatively quiet. As the offices are close to the government residences, there is a considerable reduction in time spent in journeying to work. Actually, the Provincial Police Headquarters, the District and Provincial Prisons, the Local Magistrate's Court and the Licensing Office are all found close to the district and provincial administrative buildings. Such clusters are rational because of the functional co-ordinations required between these different depart-

ments.

### C. Residence

1. Shapes: Although there are as many different residential shapes as there are towns, from a study of some urban residential shapes in Sierra Leone (Fig. 8.12), certain patterns are evident:

(a) Planned towns (Bonthe, Waterloo) and those developed on the grid-iron lay-out have more compact and concrete forms than those with spontaneous growth.

(b) Average sized urban centres like Bonthe, Lunsar and Matru, have more concrete residential outlines than either smaller (Yonibana, Mano and Kukuna) or larger ones (Bo, Kenema and Makeni). Possibly, this is due to the fact that the smaller towns have not yet experienced interstitial infilling - hence their hollow nature. But although average ones have experienced this intra-urban building phase, they are yet unaffected by large scale ribbon development - hence their compact shape. Large towns, however, have experienced both interstitial infilling and large scale ribbon development. Consequently, their outline is irregular.

(c) The otherwise smooth outline of urban residential areas is distorted and extended at particular points by the sprawling of buildings along the main routes of the town. The fragmented lamina shape of some sections of Port Loko, Bo, Kenema and Makeni are probably due to this cause.

(d) The shapes of residential areas are sometimes distorted by the development of isolated government residences as in Magburaka, Bo, Makeni and Kambia (Fig. 8.12).

(e) The shape and extent of the CBD and other commercial units of a town have great influences on the internal compactness of the residential area.

(f) The physical features of the site have some influence on the shapes of residential areas.

From these observations, it is clear that the shapes of the residential areas of towns are the result of physical and human factors notably, the physical features of the site, the alignment of roads and the shape and extent of the CBD.

Because of fairly primitive technology and the spontaneous growth of most Sierra Leone towns, swamps and rivers have been avoided rather than reclaimed and channelled. Bonthe, for example, is divided into two residential sections, a northern and a southern one, by swamps stretching east-west across the town. In the same way, Port Loko is divided into eastern, central and western residential sections. In essence, the shapes of practically all our towns reflect the influence of water bodies. Both the amorphous shape of Bo's residential area and the two southern gaps in the residential section of Kenema reflect the inhibiting influence of swamps. In the latter town, the effect of the Dambaye river on the residential shape in the north-west is also evident. Obviously the division of Matru's residential area into two sections is directly the

result of the direction of flow of the Tondovoi river.

In Lunsar, we also see similar influences in the west and south.

The importance of relief is similar to that of water bodies. In Makeni for example, the hills in the south and south-west have repelled residential growth which is now concentrated in the north around Rogbani and Lunsar road. Similarly, Kabala's residential shape reflects the same physical controls in the north-west and north-east. Actually, the influence of relief is most evident in the spatial development of Freetown's residential area. Here, the northward thrust of the highlands to the coast has led to the main east-west development of the town.

Roads are not only important for town fixation, they also dictate the siting of individual buildings. Furthermore, they have some effect on residential shapes. Where the importance of roads as elements of building fixation outweighs that of other agents, ribbon development sets in. In Magburaka, for example, the importance of the Bo road explains the linear shape of the town's residential area. The influence of roads however, seems to be most evident in places situated on important motor roads. Thus it is very marked in Kenema, Bo, Makeni, and Koidu, but absent in Bonthe and Yeliboya.

Central business districts influence residential shapes in two ways: Firstly, their shape and location in townscapes helps explain the presence of big gaps in residential shapes.

Secondly, where it has a peripheral location, as in Bonthe and Lunsar, it affects the outline of the residential area (Fig.8.12).

Thus human and physical factors working conjointly have produced the various residential shapes in the country.

2. Residential Land Use : Many American writers, notably Burgess (with his concentric zone theory) and Hoyt (with his sector theory), have tried to find laws which might equally govern the spatial development of all urban settlements regardless of time and location. It has, however, been observed by people like Davie that there is no universal pattern or what one might call an ideal type. This absence of clear-cut ecological areas is well marked in most towns in Sierra Leone, though it is greater in some than others. Centres without a

"civil service hierarchy ... (have) no clear cut zoning on an occupational, class, or tribal basis!"<sup>22</sup>

But in places with such a hierarchy there may be "a clear ecological pattern"<sup>23</sup> based on it. In Magburaka (Fig.8.13) for example, one could vaguely delimit ecological residential areas based on the division of buildings into three main groups :

(a) Good residential buildings, including concrete bungalows and storey houses roofed with zinc or concrete.

(b) Fair residential buildings, consisting of houses built of mud, finished with a veneer of cement and covered with zinc.

(c) Poor residences including houses built of mud and roofed

with thatch. A few of the houses in this category are built of scrap-metal and covered with the same material.

On these bases, Magburaka is divided into residential groups: Good residential areas are generally associated with government buildings and houses in the commercial heart of the town. Poor residential houses on the other hand, are found in the town's historical core and in scattered sections outside the main built-up area. Majority of the houses in the residential zone are built of mud finished with a veneer of cement and roofed with corrugated sheets. (Fig.8.13).

Even on the occupational and tribal basis, there are no clear ecological regions.

"The house of a rich trader may stand next to one occupied by labourers, the house of an educated man next to one full of illiterates".<sup>22</sup>

All these indices for the divisions of residential areas are unsatisfactory. The only spatially evident division of residential zones is that between private and government residential quarters (Fig.8.12). The government residential areas are generally isolated and peripheral to the main built-up areas of private residential quarters. In the location of government residential areas, a region of high ground as in Makeni, Kenema, Kabala, Kambia and Sefadu, is required on purely climatic grounds. Where this is absent, an isolated cool, forested area (as in Bo and Magburaka) is preferred.

Applying this division to residential complexes of Kenema,

Gamble noted that

"on the top of a high hill behind the town stands the house of the District Officer. North of the town is the senior civil service area... in which an area settled by the managers of the large commercial firms occupies a small enclave. Here houses are widely spaced. Next comes the various government offices, and below these the quarters of the junior civil servants, the clerks' quarters first, with the messengers' and prison warders' houses further away. The Dambaye stream serves to separate the Government area from the rest of the town".<sup>23</sup>

In the same way, the Government areas of both Makeni (where the houses of the senior civil servants are on the hills in the south-west and those of the junior civil servants, acting as a buffer between the private residences and those of the senior civil servants, are just below these hills) and Magburaka (where the senior civil servants live in the north-east along the Mathora road, whereas the junior ones live in the south-east along Bo road), may be divided into such ecological areas.

The size of government residential quarters varies considerably according to the administrative importance of the town. It ranges from the single isolated rest house of Matru, Yonibana, Gbangbatok and Taiama to the "Reservations" of towns like Bo, Makeni, Magburaka, Kailahun and Kenema.

Actually, to attempt to divide the incipient urban centres of Sierra Leone (where most people are still engaged in agriculture and administration) into ecological zones, seems a priori

hopeless, and time-wasting.

3. Density of Housing:- The urban house density is dependent on many factors like the physical features of the site, the historical growth of the residential area and the agents responsible for the development of particular residential quarters. In Mambolo, for example, the presence of swamps around the town has meant that the wide spacing of houses was impossible. The general unwillingness of people to change the physical conditions of the site, goes a long way to explain why the historical cores of most towns in the country are congested and have a high density of buildings.

Generally, the government residential areas have lower housing densities than private ones and planned towns than unplanned ones. In whatever town, therefore, the distribution of buildings reflects the interaction of physical and human factors (Fig. 8.14).

#### D. Recreation

In Sierra Leone, the complexity of recreational activities, in the main, seems to be directly related both to the population of a centre and its functional importance. In small urban centres like Taiama, Yonibana and Mano, the only recreation, beside the uncommon dances staged in the N.A. Court Barris, is football. Average towns, however, (Matru, Bonthe, Kambia) might have in addition to football fields, lawn tennis courts and after-hour bars.

Furthermore, those (Segbwema, Kambia, and Bunumbu) served by roads, may sometimes be visited by the Information Cinema Unit. Only the large urban centres, notably Bo, Kenema and Makeni, have in addition, cinemas, hotels and night clubs (like the famous "Splendid" club of Bo, and the "Opera" of Koidu). Freetown, the town with the most complicated functional pattern and the most heterogeneous population, has besides these, a golf course and beautiful beaches.

Urban recreations may be divided into permanent and temporary. Permanent recreations include football fields, lawn tennis courts, night clubs and cinemas; whereas the temporary ones are the occasional dances staged in certain towns, traditional dances, and the infrequent cinema shows in some of the towns. The permanent types have definite geographical locations in the urban landscape (they are therefore easily mapped), whereas the temporary types have no permanent locations. Thus, in discussing the location of recreational activities we shall limit ourselves to the permanent types.

Except in the case of the private playing fields, which are attached to institutions like schools and colleges, most football fields are located in peripheral areas where land is very cheap, (it would be uneconomical, for example, to build a football field in an area of peak land values), traffic bottle-necking is greatly reduced, and the noise from the spectators does not become a real menace to citizens

(Figs.8.1, 8.2, 8.3). Because of the poor state of urban communication and the peripheral location of the playing fields, most spectators walk to the fields. It is always a real ordeal to drive through the mass of spectators at the end of a Saturday match in Freetown.

Unlike playing fields, lawn tennis courts do not need large areas, and, except in a few cases like Wimbledon, do not attract many spectators. As most tennis courts are privately owned, their distribution does not lend itself to rational analysis. One thing that is clear, is that most government residential areas have one or more tennis courts.

Where cinemas are found, they are either within the CBD as in Freetown and Koidu, or just peripheral to it as in Makeni and Bo. This association is quite curious - an area which is less active at night is one of the main recreational centres. It follows that journeying to cinema is quite appreciable. One would have felt that the cinemas would have been located in the main residential areas with large pools of potential customers. The siting of the cinemas in a practically non-residential area may be explained partly in terms of the tendency of people to occasionally escape, especially in the evenings, from their immediate surroundings for recreation, and partly because cinemas are generally owned by Lebanese who usually live in the CBD. ↑ (b/s)

The locations of night clubs do not fall into such a pattern as that of cinemas. This is typically true of Freetown where the criteria for opening a night club are the availability of

capital and suitable land. In spite of this hotch potch distribution, it is clear in Bo and Freetown, that the large night clubs - Cape Club, and Splendid - are outside the main built up areas. In Freetown they are around Aberdeen; in Bo, the Splendid Club is just off the village of Messima.

We may note, therefore, that both recreational activities (golf, football), requiring large areas of cheap land, and large nocturnal recreational establishments, are generally peripheral in distribution. In contrast to these, the geographical distribution of small recreational activities such as gambling, lawn tennis courts and pubs, do not seem to fall into any generalized patterns. Actually, their positions could only be

"explained by ascribing intangible, non-material values to locations".<sup>24</sup>

#### E. Religion

Practically all urban centres have churches and mosques. The number of these religious institutions in a town at a particular time, is determined by factors like the size of the centre, its religious importance to the surrounding settlements and its sectarian composition.

The location of religious buildings is determined, in the main, by the geographical distribution of the different religious groups in the town. It is partly because of this that, in Freetown, the Evangelical United Mission has churches, besides the one on Regent Road, at Brookfields and Gingerhall - sections of Freetown.

In fact this also explains the peripheral locations of churches in Makeni close to Mission schools. In Bonthe, similarly, the distribution of churches cannot be explained in purely deterministic terms, but in terms of its socio-historical development. The churches were sited in those sections with many potential members. Hence the United Brethren Churches are found in the south (Nyandehun), and the others are clustered together in the northern section of the town. The first church, the Anglican Church, established in the north was centrally placed in a region with a predominance of Anglicans and Methodists. When the Methodist Church was eventually established it was built close to the Anglican one since both of them served the same hinterland - activities serving the same hinterland always locate in the centre and close to each other.

In the distribution of churches, ethnic clusters in towns have very little influence; but in that of mosques, they seem to be the paramount factor. In Freetown, we have, for example, a Temne and a Madingoe Mosque. Tribal mosques are also common in many other towns. It is only in fairly homogeneous communities like Makeni and Magburaka, with their very predominant Temne population, that we find other reasons to explain the location of mosques. In such places, they are built to serve particular sections which are in most cases coterminus with the wards. Perhaps this reason may explain why there is only a mosque, but two missions in Yonibana.

A large proportion of education in Sierra Leone is still in the hands of missions whose primary aim is to produce Christian citizens. Consequently, one finds a close correlation between the distributions of mission schools and churches. Usually, when a new school is built a new chapel is immediately built close to it. In Makeni and Matru, for example, after the construction of the secondary schools, chapels were subsequently built close to them.

For the location of Government educational institutions, availability of space for expansion is a very important factor. The siting of the Girls' Secondary School east of Magburaka and that of the Training College south-east of that town are examples in point. This same factor seems to have dictated the siting of the Milton Margai Training College, outside Freetown, at Goderich.

Space for subsequent expansion is so important that educational centres which have become part of the urban built-up area tend to move to peripheral locations. This might partly explain why the Sierra Leone Grammar School, the Methodist Boys' High School, and the Collegiate School have all moved from their former sites within the residential complex of Freetown, to circumferential sites outside the administrative precincts of the town.

#### F. Medicine

Urban medical facilities include hospitals, health centres and dispensaries. Most of the district headquarters have

hospitals; some medium and small towns like Yonibana and Yele, have health centres; whereas many of the smaller ones - Gbangbatok, Kangahun, Sumbuya - have dispensaries. These medical establishments are intended to serve the towns and their hinterlands.

Since spatial overlap in the distributions of the different medical facilities is very small, we may regard all of them as medical establishments in discussing their general locations in towns. Because medical institutions require large areas of land, and there is a general unwillingness by people to stay close to them, they usually occupy peripheral locations (Figs.8.1, 8.2, 8.3). In Yonibana for example, the health centre is found in the extreme south-west; in Bo the hospital is in the west. One also finds such locations in Bonthe, Matru, Waterloo and Magburaka. But not all hospitals or health centres in Sierra Leone have fringing locations. In Makeni, Port Loko and Lunsar, for example, they are central and close to the commercial core. Such a location in the main urban landscape means that land for future expansion is not easily available. Hence the future expansion of the Makeni Hospital may require a separate section completely detached from the present one.

Generally, therefore, peripheral locations are better than central ones, especially if located on an important route as in Matru, Kambia, and Magburaka. Some peripheral sitings, however, are very disadvantageous. Within Bonthe, for example, the

location of the hospital is rational, but quite abnormal for the area it should serve; since most of the patients come by water. The eastern outskirts position of the hospital, and the absence of public transport necessitates the transporting of patients from launches to the hospital. One often see nurses, in the evenings, slowly pushing trollies from the jetty to the hospital. A peripheral coastal position may have solved this problem.

#### G. Transport

The proportion of urban landscapes given to a transportation uses is very insignificant for a filling station occupies less than two acres; garages are few in all towns except Freetown; and only a few centres, such as Bo, Kenema, Makeni and Freetown, have lorry parks.

Since regulations state that lorries should only park in the main lorry parks in the different towns, such areas are usually places with high traffic densities. If these parks are located within the commercial core - another area of traffic congestion - traffic problems will increase considerably as in Bo (Fig. 8.1) where the lorry park is really part of the CBD. Generally, however, lorry parks are away from the CBD so that traffic bottle-necking problems are greatly reduced (Makeni, Kenema, Freetown).

The distribution of filling stations is related to a rational appraisal of the areas of peak fuel demands in towns. In some towns like Yonibana, Kukuna and Gbangbatok, there are no such areas; in some others - Bumpe, Kambia - there is only

one. Consequently in the limiting case, towns with 'n' such peak areas may have 'n' filling stations. This possibly helps explain the increase in the number of filling stations in Freetown and the spatial distributions of the different filling companies in that town. It is also because of this that all lorry parks, and many important road junctions have filling stations.

The CBD may be an area of peak fuel demands, but here, the great competition for land militates against the construction of filling stations. Whenever the opportunity arises, however, the filling stations are ready to seize it. The location of a Texaco filling station within the commercial heart of Freetown is an example in point. Since it is generally difficult to build filling stations in the CBD, areas fringing it are very favourable sites as in Bo and Makeni.

As previously stated, garages are not numerous in the towns of Sierra Leone except Freetown, where those (Staveley, Brewo and Milhem garages) which are located within the main built-up areas, are congested. The location of garages within the precincts of the town may not have been accidental, it may have been the result of cool, calculated reasoning aimed at capturing more customers.

The geographical distribution of small privately owned repair shops, is conditioned by the availability of cheap land. Hence they are absent around areas of peak land values - i.e. the CBD.

#### H. Urban Open Spaces

Not all the available land within an urban centre is utilized, some areas are open spaces which are parks, cemeteries, cultivated land and water bodies.

Generally, a peripheral location is selected for cemeteries as in Yonibana, Magburaka and Waterloo. But sometimes, as has happened in Bo, Bonthe and Freetown, the urban built-up area has grown very fast and engulfed them. Here, although their use may be discontinued, they often remain visible features of townscape. Only in a very few cases, as in Bonthe have they been cleared and used for building. The fact that many cemeteries are not cleared, is partly an indication that there is practically no acute land problem for urban expansion and partly a reflection of powerful theological and social restraints against their clearance. In some of the land use maps, cemeteries are not shown because they are fairly isolated from the towns.

Recreational parks are not found in many urban landscapes in the country; only Port Loko, Magburaka and Freetown have them. In these towns, they occupy relatively central locations easily accessible to all sections of the community.

In many towns (Bonthe, Makeni, Yonibana and Kambia) where interstitial areas are often used for cultivation, vegetables and certain trees like oranges, bread fruits and coconuts are planted.

Swamps which are generally parts of many urban landscapes,

are sometimes utilized for the cultivation of rice (as in Magburaka, Makeni, and Yonibana). In Bonthe, some of the swamps act as dumping grounds for "night manure".

Townscape, as an organic unit is dynamic; certain locations within it could be explained in geographical terms, but others reflect socio-economic factors. From this analysis of land use, it is evident that industries are not important agents of land use in the country - industrialization being in its infancy. Other features evident from this analysis include the importance of towns as administrative and commercial centres, and the fact that the complexity of urban functions is directly related to the size and importance of that town. For a long time to come the physical features of the site may still greatly influence the shape and internal land use patterns of towns in the country. In spite of this, the presence of human patterns - land use and house types-in towns, and the modifications of the physical site (Chapter 7), show that

"the created landscape of the town ... modifies the regional site by urban expansion".

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23. Ibid., p.12.
24. E. Bergel, Urban Sociology, (McGraw Hill Book Co, 1955), p.105.

CHAPTER 9URBAN HOUSE TYPES

House types of any region, provide evidence

"of the complex relation between man and his environment".<sup>1</sup>

Furthermore, they

"illustrate the interaction of physical and human controls in the use of building materials".<sup>1</sup>

These statements are especially true in the underdeveloped areas where external influences have just started modifying and in some cases helping to replace the traditional house types. As Houston observed

"there is a close relationship between the traditional house type of a region, and the terrain from which it has been fashioned both in the use of local building materials and of the vegetation cover".<sup>1</sup>

In Sierra Leone, the traditional houses are built of mud and roofed either with grass (in savanna regions), or thatch (in equatorial forest areas).

Urban house types in the country may be divided into

"indigenous, Creole and modern. These groups may themselves be divided into rural and urban, a division which is of little significance as far as the first group .... (indigenous) is concerned",<sup>2</sup>

for there is no marked difference between urban and rural types.

Generally, traditional houses are disappearing from towns, but the rate is fastest in central areas and along the railway (Fig.9.1). In larger centres such as Kenema, Makeni, Bonthe and Bo, there are now only a few enclaves of indigenous houses (Figs.9.2). In Bo, for example, such clusters are found around Hadup Lane, Tikonko Road and at Messima; in Yonibana, and Magburaka, in the historical core areas; in Makeni, along MacRobert Street and in Bonthe in the Domboko section.

#### HISTORICAL EVOLUTION OF HOUSE TYPES

(a) The Traditional Type: There are many documentary evidences to show that the traditional house of Sierra Leone is the circular type with grass or thatch. Sketches of Sierra Leone villages found in the books of Alldridge,<sup>3</sup> Winterbottom<sup>4</sup> and other 18th and 19th century writers on the country show that practically all the houses were circular.

A more explicit impression may be obtained from the correspondence of Mrs. Falconbridge who in the 1790's wrote that the houses of the Rokel Estuary were

"very low... irregularly placed, and built either in square or circular form".<sup>5</sup>

The few square types she saw, may have been the first signs of house type modification. Since the Rokel estuary and other coastal areas are relatively close to Freetown, they were first

affected by the ripples of acculturation. Winterbottom also mentioned the predominance of the circular type among the Temne and the Bullom. Their houses, he wrote, were

"either square, or more frequently of a circular form, and never consist of more than the ground floor".<sup>6</sup>

In Koranko country, Laing noticed that the houses were circular and

"covered with pyramidal roofs of thatch".<sup>7</sup>

Making an appraisal of the situation, Stoddard notes that

"from the speed with which the former (i.e. the rectangular type) is spreading, it might be thought that the circular houses are truly indigenous, and the rectangular merely introduced".<sup>8</sup>

All the above evidences point to the conclusion that the circular house types are "truly indigenous".

The popularity of the circular type was due, firstly to its ease of construction - being easier to draw a circle than a rectangle. A piece of string tied to a peg was quite sufficient to describe a reasonable circle whereas the construction of a rectangle required a better knowledge of elementary geometry. Secondly, when using grass or bamboo fronds for roofing, a cone shaped roof is preferable to a rectangular shaped one with clearly defined corners. Thirdly, the number of man-hours and the labour force required to build this type of house is comparatively small. Actually, it is usually built by the members of the extended families.

The indigenous house sometimes consists

"of more than one apartment, but sometimes it is divided by a partition of wattles plastered with clay, reaching ..... only as high as the outside walls".<sup>9</sup>

The roof is

"composed of the branches of a species of a bamboo, or of long grass, (and) is generally of a conical form .....; by projecting a few feet beyond the outer walls, (it) forms a kind of piazza, which affords shelter from the rain"<sup>10</sup>.

These houses

"seldom (have) .... any other opening than the door of which there are usually two opposite to each other .... The entrance of a house is seldom closed by anything but a mat".<sup>11</sup>

Previously they were scantily furnished;

"a few mats to sleep on, and clothes to guard them from the cold at night, an iron pot, a few calabashes, a copper kettle for water, a bilie or basket, with a small box for the women's clothes constitute the chief part of it".<sup>12</sup>

The bareness of these houses was even noticed by Mrs. Falconbridge who said that in some of the houses at the Rokel estuary

"a block or two of wood

(called kpakai in Mende) which served as chairs, a few wooden bowls or trenchers and perhaps a pewter bowl and an iron pot, completed the whole of their furniture".<sup>13</sup>

The traditional house has changed very little except for some slight modifications like the presence of windows and chairs, the use of corrugated sheets and cement. A more recent description of a traditional Fula house by Dalton, goes to confirm this. He observed that it is round

"with a wall of sticks and mud and the usual overhang over the door, but little behind. The floors and verandah are cemented with a mud/dung mixture and the pillars are carved. The platform for the pans as well as the inside walls are decorated with lops and bends worked in the mud. In front of the door inside, there is a bed slightly above floor level, and usually only the house owner may sit on it. To one side will be the collection of up to 150 pots, pans, bowls, mugs, trays and trunks, some of which will contain water, milk or rice covered with wide circular grass mats.... In the centre is the fire place with pots suspended from the roof .... The verandah is used to suspend a hammock and as the usual talking area".<sup>14</sup>

The method of construction of the indigenous house has changed little, except perhaps in the use of nails rather than ropes, since the time of Winterbottom who observed that

"the buildings were composed of posts as thick as a man's thigh, one placed at each of the four corners, and sunk into the ground about a foot and a half; other

smaller ones are placed between, at the distance of about two feet, and the intermediate spaces are filled up by plating with twigs or wattles. The walls..... are plastered inside and outside with clay, which is left to harden in the sun".<sup>15</sup>

As regards the roof, beams laid across the walls support a central king post from which roof members radiate to the walls of the house. The whole is finished with pole work and finally covered with thatch (Fig.9.3). Though all round houses are generally built in this way, in the finished work, there are variations reflecting both the social and cultural backgrounds of the people, and the geographical conditions of the regions. Thus in some areas, grass is used for roofing, in others bamboo fronds. Sometimes the walls and floor may be plastered either with mud (generally clay) or mud/dung mixture as among the Fula. The circular house has many disadvantages which seem to become more marked because of contrasts with modern types.

"Not only is the plan form of .... (these) houses unsatisfactory from health and hygiene viewpoints, but the houses are often too dark, damp, and under-windowed. This is the result of poverty, primitive methods of construction, a need for privacy and a fear of thieves"<sup>16</sup>.

Another disadvantage is that none of the materials (dirt, animal dung and grass or bamboo) used, remain rainproof without constant attention and repair. This disadvantage is

also applicable to rectangular houses built of the traditional building materials.

In round houses, the rooms are generally overcrowded so that health becomes endangered, especially with the presence of mice and cockroaches which feed on anything. Besides this, circular buildings are unimpressive and do not lend themselves to gorgeous embellishments. In other words, they do not give free rein to the creative ability of a Maxwell Fry, a Lubetkin or a Pilichowski.

(b) Changes in House Types: Although circular houses are still found in towns, they have been gradually displaced by the rectangular type especially in the coastal areas and along the railway. But even as late as the 1930's, many towns in the eastern and north-eastern sectors of the country had more circular than rectangular types (Fig.9.1). When the rectangular house plan was introduced into this country, is a matter of conjecture, but it was present in the time of Mrs. Falconbridge (1794) and Winterbottom (1803). Stoddard feels that its introduction pre-dates the colonial period. This is difficult to believe since conservatism and traditionalism at that time would have militated against it. In fact one might ask the questions: "From where was it introduced, and by whom?" These are difficult questions to answer. Actually, because of the long contact with Europe (since the 15th Century), and the introduction of building instruments like matchets and nails,

we may conclude, in the light of our present scanty knowledge, that the rectangular house types were the first "presents" we received from Europe.

The way in which the rectangular building is ousting the circular type all over the country, shows that it has some appealing characteristics and advantages. Firstly, the belief which grew in colonial days that what was preferred by the British was better, made people adopt the rectangular style which was used for the building of all government houses. Secondly, with the increasing desire for improved sanitation consequent upon the spread of education, many people came to prefer the rectangular type, with its many windows, to the windowless traditional type. A few conservative elements, however, preferred to keep their circular houses, but with modifications. Thirdly, the adoption of corrugated sheetings as roofing material showed clearly that they were more suited to rectangular styles than to circular ones. Consequently, before a house is roofed with corrugated sheets, the old circular shell is usually replaced by a rectangular one. Fourthly, because of general sanitation, the Health Department seems to recommend and advocate for rectangular types. Stoddard

"was informed that some health authorities insist on houses having four corners to facilitate planning".<sup>17</sup>

Fifthly, the rectangular type has generally become an index of social and financial status of people -

"a circular house in a town was regarded as extremely 'bush' and unsophisticated".<sup>8</sup>

Closely associated with the status symbol is the influence of diamond mining which led to the diffusion of wealth. Thus many poor people, who became suddenly rich, built good rectangular houses with some modern amenities. Diamond mining therefore, has aided urban house evolution especially in the diamond mining region of east-central Sierra Leone. Sixthly, the general change in house building materials greatly influenced the gradual extinction of the round houses. As Maxwell Fry observed;

"it is difficult to realise that the materials we use for building have a marked influence on the form of the building that results. Given tree trunks, wattles and reeds, a... (person) will put up a shelter that will have a pointed roof, low eaves and a generally shaggy air... Give him some bricks, tiles and squared timber and he will make a more lasting job; neater in appearance but good to look at. Give him some steel stanchions and trusses and asbestos and he will make a cheap, serviceable and in many ways not ill-looking affair that gives him... as much pleasure as any other"<sup>18</sup>.

We can postulate stages by which the rectangular style has become predominant. These stages reflect the role of external influences both in the form of ideas and new building materials.

Stage 1 is the rectangular house built of the same material as

the circular type. Here the change was only in building plan as most of the disadvantages of the circular type were still evident, although it had increased ventilation.

Stage 2 is the rectangular house constructed as above, but finished with a veneer of cement and roofed with zinc. This is a more permanent structure and shows the gradual adoption of imported building materials. The cementing of the floor helps to keep out domestic pests. The defect of this type is that because of the combination of materials (cement and mud),

"cracks will rapidly appear at the junction points between the two materials"<sup>19</sup>.

If, however, the coating of cement is thick and properly applied, the building's life may be considerably lengthened.

Stage 3 is the rectangular house built either of zinc or dirt bricks finished with a cement coating and roofed with corrugated sheetings. Such houses are more lasting, they are generally waterproof and less attractive to rats and cockroaches. Actually, the use of corrugated sheets for walls also has some advantages:

"it is relatively cheap, easily erected, watertight material, impervious to ants"<sup>20</sup>.

Stage 4 is the use of reinforced concrete or cement bricks for the walls and corrugated sheets for the roof. Up to stage 3, the houses are bungalows with the toilet and kitchen often detached, but buildings in stage 4 may be either single or multiple storeyed - with subsequent storeys either of concrete,

planks or zinc. Many houses in this group belong to that architectural style called the Victorian.

Stage 5 is the modern house built either of bricks or concrete, multiple storeyed and roofed with concrete. Here a steel skeleton, to hold the different parts together, is prominent.

Each of these evolutionary stages seems to be spreading from the coast inland across the country like ripples. Thus many towns (Masingbi, Alikalia, Kayima) in the east and north, had until recently only a few concrete houses. Now, because of road developments and more internal migration together with an increase in the dissemination of ideas, modern houses like the Maxwell Fry box type, are now found in many parts of the country. In fact some recent commercial buildings in Sierra Leone towns are constructed according to this modern style.

At the end of the Second World War, stages 1 to 4 were present in urban centres in the country together with the circular houses and their derivatives. But after the war, a new phase in the evolution of house types has developed—a result of architectural inspirations from the West (especially Britain) where since the 1930's

"there has been a steady increase every year in the number of freely planned houses designed for living in rather than to be looked at and free from the hampering conventions of architectural styles"<sup>21</sup>.

Lately, another source of inspiration in house building has been the Middle East whose influence is epitomized in the dome and minarets on mosque.

The spread of these new influences has not been as phenomenal as that of the bungalow. The modern style for example, has become firmly rooted in Freetown where it is widely used for commercial and public buildings like the Paramount Hotel and the Albert Academy and is gradually being adopted as a style for residential houses. The General Post Office, Leone House, and the Ministerial Building are all after the styles of people like Lasdun, Gropicus, Stephenson, Aldred and Maxwell Fry. Outside the capital, however, the modern style has not been well received and it is only used for educational, commercial and recreational establishments. Possible reasons for the slow spread of this new style even to urban areas include the fact that it is expensive to build and has to be constructed by specialists. In addition, there is the increasing conservatism in buildings, due possibly to the public appeal to preserve traditional arts and techniques. Now some people prefer to change their old insect-infected wooden windows to steel ones, their thatched roofs to zinc, and expensively furnish their houses, but still keep the old shell. Even in Britain, Maxwell Fry observed a similar attitude for

"as soon as plate glass became cheap enough commensical but insensitive people, whipped out

their Georgian windows and put plate glass there instead, destroying at a stroke the essential harmony of their old houses".<sup>22</sup>

It will however take a long time before the ripples of this new style may have any marked influence in the Provinces where even the simple multi-storey building has just started becoming common. The bungalow was and is still the most common house in towns outside the Western Area.

Middle Eastern influence is increasing slowly, and is concentrated on the railway and the diamond mining areas. The dome and the minaret have been adopted in the building of many mosques in Freetown, Kenema and Sefadu, otherwise they have not been well received although the dome was adopted in the construction of the Parliament Buildings by an Israeli Company (the National Construction Company of Sierra Leone). Thus Middle Eastern influence on house type evolution in Sierra Leone is very insignificant.

In the construction of practically every modern urban dwelling, the use of imported materials (cement, corrugated sheets, asbestos, steel, window frames) has become inevitable. It is therefore possible to assess the rate of urban housing construction and the magnitude of urban house type modernization from the graphs showing the amount of building materials imported since 1920 (Fig 9.4). The amount of these materials imported is rising. The graphs show an abnormal rise during the Second World War due possibly to the increased use of

cement and zinc for war-time buildings whereas the sudden rise in the 1950's is a reflection of the building boom which followed as a consequence of alluvial diamond mining.

More cement is imported than zinc. This is obvious since many modern buildings are built with reinforced concrete and roofed with cement. Leone House, the Post Office and the new Ministerial block will give one an idea about the consumption of cement.

Since 1954, new roofing materials (asbestos-cement sheets and aluminium sheets) which have been imported, are gaining favour and gradually replacing corrugated iron (or zinc) sheets as roofing materials. These new materials have some advantages. Asbestos-cement sheets are better insulators and are more comfortable during the rains than zinc and aluminium sheets. Unlike iron or zinc sheets, both aluminium and asbestos-cement are unaffected by rust. Writing about corrugated iron, Drew, Fry and Ford stated that

"maintenance is essential as the zinc protection given to the material in manufacture does not last long in the damp, hot climate of the tropics. As soon as rust gets in, deterioration is rapid and it becomes very unsightly".<sup>23</sup>

(c) Evolution in House Furniture: As previously stated, traditional houses were poorly furnished. Crude pieces of board, tied together by ropes, and mats formed an important part of the household utensils. Now many urban houses are

lavishly furnished and the traditional furniture have practically disappeared. Instead of using the traditional types, even the poor man who cannot afford to buy good chairs, makes his furniture from old empty boxes. But although armchairs and tables are found in practically every urban house, their quality varies considerably. Some are inelegant pieces made by the local carpenter, others are the work of the main furniture construction companies like the Kenema Construction Company and the Construction Furniture Company, whereas a few are imported either from Britain or from other countries in Europe and America. In some houses one finds no better example of the blend between different traditions than in the presence of furniture got from these three different sources. It is difficult to estimate the amount of furniture made by local carpenters, but when we imagine that practically every large village, town and city has its own local carpenters, we may conclude that the total output must be quite considerable. The furniture construction companies are also well patronized. The Forest Industries Department at Kenema, for example, made furniture in 1964 to the value of over £1,000,000 (Le2,000,000). In the same year, the Construction Furniture Company's production was over £500,000 (Le1,000,000). But Sierra Leone is not self-sufficient in furniture and other household utensils; some are still imported (Table 9.1).

TABLE 9.1VALUE OF FURNITURE IMPORTED

<u>Year</u>	<u>Amount (in £'s)</u>
1958	89,688
1959	109,301
1960	116,143
1961	139,642
1962	148,654
1963	164,593

(Source : Sierra Leone Trade Journal 1958-62).

## PRESENT URBAN HOUSE TYPES

A study of house types of any area should be concerned with: (A) the plans, (B) the walls and (C) the roofs.

(A) Urban House Plans: The diversity in urban housing leads to variations in house plans which reflect the personal demands of individuals. As Yorke puts it

" the plan (of a house) .....  
must be made to suit the individual need, as well as the site".<sup>24</sup>

Hence we find both circular and rectangular plans.

1. Circular Plans: Although the circular indigenous houses have been greatly influenced by more recent architectural introductions, the circle still forms a conspicuous part of their plans.

Circular house plans may be sub-divided into:

(a) Unbroken circles (i) without any additions;

- ( ii) with internal modifications;
- (iii) with external attachments;
- ( iv) with internal and external additions.
- (b) Broken circles
  - ( i) closed by polygons;
  - ( ii) finished by other open circles.
- (c) A combination of arcs and lines .
- (a) Unbroken circles: These are the most common and seem to be widespread throughout the country. From Fig. 9.5, we may get a rough idea about the stages of modifications, beginning with the simple circle, through to the concentric circular one with the outer circle hinged on an open rectangle.

Unbroken circles without additions are still found in many towns including Waterloo, Kenema (especially near the Paramount Chief's House), Magburaka (around Mabum Street and the Old Town), Bonthe, Bo and even Freetown. Such houses are usually without verandahs, have practically no windows, and no rooms. Previously the house of a polygamous husband was built on this plan, and his wives lived either in big round houses, or long rectangular ones. Secret society houses (like those of the Poro and Wunde) also favour this simple plan, because it is suitable for hiding society "medicines" and "jujus". The simple circular plan is becoming less popular for residential uses and, with time, it may completely disappear from the urban landscapes of the country.

In circular houses, with internal partitions (a2 to a7)

verandahs are common. In fact some have more than one (Fig.9.5). Although most of the verandahs are cut off by straight lines, a few are enclosed by arcs. Verandahs are very useful additions, and may be regarded as

"the outside rooms of houses  
 ..... pleasant to live and  
 work in ..... a social meeting  
 place and outdoor shaded sitting  
 room ..... a place on which  
 to do the housework"<sup>25</sup>.

The addition of the verandah means that houses may be larger, and may therefore be divided into rooms; windows may become common and sanitation may considerably improve. Like the simple circular one, this house type is widespread, for it is found in practically all the urban centres in the country.

In round houses with external attachments (a10 to a13), the verandahs seem to have been thrust upon them and could therefore be demolished without causing any serious morphological deformation to the houses. Such buildings, however, are more spacious than the other two. But not all additions to these houses are porches, some are rooms with a door facing outside. On the whole, circular houses with external attachments are common and are found, for example, in Bonthe, Magburaka, Bo, Kambia and Bwedu.

Some circular houses have both internal and external additions (a14 to a20). This group represents the greatest additions to the round house without breaking the circle - it really shows the close association between the old and the

new in independent Sierra Leone. Such houses are generally reasonably ventilated, have many rooms, and seem to be a real substitute to rectangular houses. In Pujehun, Kambia, Kabala, Kenema, Magburaka and Makeni, there are examples of such plans.

(b) Open circles: In type (a), the circular plan has been preserved and the additions could be removed without any serious morphological changes. In type (b), however, the relationship between the circle and the polygon is more permanent; both forming an integral part of the plan. The open circles are closed by either polygons or by parallel lines joining two such open circles (Fig.9.5). The plans in this group (b1 to b5), show the gradual demotion of the circle. Furthermore, they give one an idea of the flexibility that has been adopted in the construction of the circular house due to the influence of the rectangle. Although type (b) is not as common as (a), it is found in the larger towns like Bo, Kenema, Bonthe, Moyamba and Rotifunk.

(c) A combination of arcs and lines: In this group, there is an ingenious combination of lines and arcs. Type (c) seems to be the last stage in the evolution of circular plans; beyond this, the plans are rectangular. Actually, it is even difficult to regard the plans in this category as circular, for they could equally belong to the rectangular class. Examples of such houses are found in Magburaka, Makeni, Kambia and Kabala.

This discussion has been concentrated on the location of the verandah and the general plan of the house; little has been said about the distribution of rooms. Many circular houses have rooms, and in some cases, each room has a specific use. In Matotoka, Mitchell<sup>26</sup> observed that the typical plan of a traditional house consisted of a central woman's room around which were the other rooms which were variously used as a store, a boys' room, and a kitchen. Other popular plans are: a general room, a small bedroom and a parlour; or two rooms, a store and a central corridor (Fig.9.6).

2. Rectangular Plans: Although in most towns, building plans are not scrutinized by any central authority, and house plans are therefore bound to vary, we may group rectangular house plans into two main classes:-

- (a) Compact rectangular buildings
  - (i) bungalows detached from kitchen and toilet;
  - (ii) bungalows and multi-storeyed houses with internal cooking and toileting facilities.
- (b) Bungalows joined by a corridor and toilet.

(a) Compact rectangular buildings: Although some of the houses with detached toilets and kitchens are surrounded by piazzas, some are without. A few have two or more small porches (Fig.9.7). This is the case with junior government quarters in Moyamba, Bonthe and Bo where a house is shared by four people.

Bungalows without verandahs are very uncommon because people have come to realise that they are really necessary in a hot climate like that of Sierra Leone. One-storeyed buildings with verandahs (Fig.9.7) are therefore very widespread. They are fairly easy to build and as the verandah does not usually occupy the whole frontage, an extra room with its door facing the verandah, is often added to the house. Rectangular houses with two verandahs are also fairly common. Here the front one is generally used as a gathering place for the men, whereas the women and the young boys often sit in the other. Such house types (Fig.9.7) are common in towns like Bo, Kenema, Bonthe, Waterloo, Songo and Kambia. In some extreme cases, the verandah encloses the house. Such buildings are often mosques.

In these bungalow detached types, the empty space between the house and the kitchen is not roofed, and access to the kitchen and toilet becomes very difficult and hazardous during the rains. It is therefore a common sight during the rains to see children falling with trays of food.

Other types of compact buildings, the self-contained ones, are generally regarded as a sign of wealth. Since storey buildings occupy a very small area of land, they are the most suitable in places, like Freetown where land for expansion is limited. But such houses require land capable of bearing their weight. It is partly because of this that modern storey buildings are not popular in Mambolo and Pujehun.

In addition, the compact self-contained bungalow is only found either in places with a reliable water supply (if flush toilets are used), or in towns like Bonthe where toilet pails are regularly emptied. It is not, however, possible where "hole" toilets are used, as flies from them may infect food. Because of these factors, such houses are found only in large administrative centres of the country.

(b) Houses joined to kitchen and toilet by a covered passage: The problem of walking between the kitchen and the house during the heavy equatorial rains has been partly solved by people joining the main house to the kitchen by a corridor. This covered passage may also be used as an additional verandah and occasionally a hammock is hung up in it. In fact it is there that the family food is often shared. Most rectangular bungalows also have a fairly large sitting room to which all the other rooms open (Fig.9.6). The arrangement of the rooms may be different, and the shape of the sitting room may vary considerably but the centrality of the parlour always remains the same.

Although the above house plan is good, its disadvantage is that the aisle makes it easy for rats, cockroaches and other insects to move from the kitchen to the house. In spite of this, it is now the most popular residential building type in the country. In Bo, Bonthe, Kenema, Sefadu, Kambia and Makeni, many examples of this plan are present.

Throughout the discussion on urban house plans, the subjectivity of individual plans has been evident - each plan reflecting the whims of the owner. This may have its advantages since different people have different needs. Its disadvantage, however, is that some houses may be very poorly designed, whereas others may completely spoil the beauty of a particular scenery or be a hinderance to the construction of a highway. To solve this, something radical must be done to rectify the plans of houses (now this is only done in Bonthe, Bo and Freetown), and the general layout of compounds. It has also been suggested that the Ministry of Town and Country Planning

"should have a plan for maintaining the beauty and facilities of..... (the countryside). The plan should make provision for proper highways, (and) also provide a set of 'ideal' designs for houses in each area. These could be bought by members of the public wishing to build these houses and would prevent the spread of ill-designed and cheaply built houses".<sup>27</sup>

(B) Urban Wall Types: Although urban house plans have been altered, greater changes have occurred in the type of material and the styles of the walls. The materials now used range from dirt, and dirt finished with a veneer of cement, to cement bricks and reinforced concrete. A discussion of wall types will include:

1. Materials Used.
2. Decorations & Embellishments.
3. Types of Doors and Windows.

#### 4. Thickness of Walls.

1. Materials Used: The materials used in the construction of urban houses considerably influence not only the resultant house plan but also the durability and sanitary condition of the house. Houses built of mud and scrap-metal for example, are generally bungalows, and on the whole very temporary. In addition, mud walls are affected by rain and the consequent cracks become thoroughfares for rats, and other domestic pests. Where, however, such walls are finished with a thin layer of cement, they may have a relatively longer life span. Finally, they are, on the whole damp and an easy prey for thieves. Houses with mud walls are still found in practically all the towns in the country where they remind the observer of the past and also give him an idea about the rate of house type evolution in the country.

Sometimes, as in Freetown, scrap-metals rather than mud are used for building. Such walls are composed of thousands of scrap-metals fitted into a kind of jig-saw puzzle that does not accurately fit. The numerous cavities that occur, become comfortable homes for rats, cockroaches, other dangerous insects, poisonous spiders, and scorpions.

During the early part of this century, planks were commonly used for the construction of houses. As communications with Britain were then unreliable, the thousands of acres of virgin forest in Sierra Leone became a reliable and cheap source for timber. Plank houses are often single storeyed,

although multi-storeyed ones are found in coastal towns. Sometimes, the ground floor is built of concrete or bricks, and subsequent ones of boards. One great disadvantage about board walls is that the planks are easy prey for termites and rats. Furthermore, they are very vulnerable to fire. Board houses are, however, better materials for the construction of walls than mud or scrap-metal, but inferior to cement bricks and reinforced concrete.

Cement bricks and concrete are now used for the construction of most modern houses - both residential and otherwise. They are strong and very resistant to domestic pets and the many other hazards of the tropical environment.

(b) Outward decorations and embellishments: since architectural decorations evolve usually in an environment of peace and division of labour, i.e. in a situation where people are not at subsistence level and can therefore afford to waste some extra time on building for purely aesthetic reasons, embellishments are therefore absent from the traditional houses. The struggle for survival does not allow people to waste time on house decorations. Most plank houses also lack embellishments, though some have arches over the door. The reinforced concrete walls are also bare, but the geometrical arrangements of the thin slabs of concrete, and the distribution of glasses are quite impressive. In other words, the "linear expression" so evident on such walls is really impressive.

(c) Doors and windows: The incidence of doors on houses varies as the number of rooms and the purpose for which the house was built. Thus the number of doors on houses shows no evident pattern. What is more interesting therefore, is the occurrence of windows on walls. Most of the traditional houses have only a few windows some of which are usually closed. The rooms are therefore dark, and the absence of a chimney means that the walls are black with soot from the fire which is lit in the house at night. Such unhygienic buildings are gradually disappearing from the urban scene, but in almost every town in Sierra Leone one may still find examples. Generally, houses built of modern materials usually have more windows, they are better aerated, better lit and less suitable for the fast breeding of germs.

The windows of many traditional houses are very small, in contrast to the large impressive ones of modern buildings. Thus as one moves up the hierarchy of materials used for house construction, there is a corresponding increase in ventilation, natural lighting and sanitation.

Doors and windows are constructed from many materials ranging from mats to steel. The use of mats is now very limited though a few houses in small towns like Sandialu, and Kontha still have them. Sometimes, the mat - often called chalah mat - is framed round and reinforced by pieces of board put on both sides of it and nailed to an outer frame. Chalah windows are

fairly better and have longer life spans than the ordinary mat window. The windows of some government rest-houses are still made from such mats. The most common material for the construction of windows and doors is board. Here pieces of planks are joined in such a way that they are practically light proof. Thus when windows and doors are shut, rooms become very dark and stuffy. To solve this problem of lighting, sheets of glass fitted into a frame of board are widely used as windows in Freetown, Bo and Bonthe. Board windows are, on the whole, easily attacked by termites, and other wood boring creatures.

The most durable (if painted) and the most recent material for windows and doors is steel. Now steel frames with sheet glass are becoming quite popular and are gradually replacing board windows. The only factor limiting the spread of this new window and door material is its comparatively high price; only people with some extra cash can buy them.

Another popular type of window is the glass louvres. These are quite effective in keeping out rain and as a brise-soleil but very vulnerable to thieves and attack in general.

(d) Thickness of walls: It has been stated by many authorities that the insulating property of a wall is generally proportional to its thickness - the thickness of walls should

increase with a corresponding decrease in winter temperature. In Western Germany 10 inches is the minimum, but in Russia 28-30 inches is required. On the other hand, it is observed for tropical areas that the thickness of the walls should be directly proportional to the mean temperature. Although the present average thickness of walls in Sierra Leone is between 10 and 6 inches, thicker walls may therefore be more suitable. Ideally, they should be fairly thick and made of reinforced concrete which combines flexibility and strength. Actually, its low rate of heat conductivity as compared to that of corrugated sheets, or sandstone, means that it is a good insulator, a factor that also makes it suitable for tropical areas.

(C) Urban Roof Types: The materials used in Sierra Leone for roof construction, include grass, palm fronds, zinc, asbestos-cement, aluminium and concrete, i.e., they range from the most primitive and conservative to the most modern. The use of palm fronds and grass is now very limited, and only a few houses in towns are roofed in this manner. In the whole country, zinc is still the most popular because it was the first imported roofing material. Furthermore, it is cheaper than either asbestos-cement or aluminium. But these latter two materials are becoming increasingly important and it is possible that with time they may be very dangerous rivals for zinc.

A few modern buildings, especially in Freetown, are roofed with cement which is cooler but greatly affected by mechanical weathering—the alteration of high and relatively low temperatures (as during heavy rainfall) results in cracks through which water percolates.

It is believed that in tropical areas and those of heavy snow fall, a high pitched roof is preferred. Although this may be true, the architectural advances of the present century coupled with the great strength of structural and building materials, show that roofs may now be constructed to fit the dictates of an individual rather than the imperatives of the environment. Thus high pitched roofs (especially common on churches like St. George's and St. Anthony's Cathedrals in Freetown), medium pitched ones (the most common) and flat ones (characteristic of many new residential buildings) are all found in Sierra Leone. The preference for one type of roof-pitch over the others is now purely subjective, although, where possible, some people may prefer the flat one for it serves as a comfortable gathering place in the late afternoons.

According to shape, roofs in Sierra Leone fall into various categories.

- (a) Circular thatch;
- (b) Rectangular thatch;
- (c) Circular zinc;
- (d) Rectangular zinc;
- (e) The dormer roof;
- (f) The flat concrete roof;
- (g) Corrugated reinforced concrete roof.

- (a) Circular thatch roof: The materials used for these cupola roofs are bamboo and palm fronds (in the south) and grass (in the north). The roof is constructed in such a way that long eaves project over the wall and help protect the mud walls from rain. Such roofs are high pitched, and variations in the steepness and length of eaves give rise to the different traditional circular types in the country (Fig.9.6).
- (b) Rectangular thatch roof: As in the above case, local materials (bamboo leaf mats and tiles) are used. The roof has four clearly defined corners thatched in a different way from the rest of the roof to make sure that they are water-proof (Fig.9.6). Regional variations in this roof type are very small, possibly because the style was imported.
- (c) Circular zinc roof: This type is most uncommon - though found in Magburaka, Yonibana and Bonthe. Its scarcity may reflect the difficulty of perfectly fitting zinc or cement-asbestos sheets to a cupola. Even the few examples are unimpressive.
- (d) Rectangular zinc roof: The use of zinc pre-supposes the presence of nails and other imported materials not used in the construction of (a) and (b). Roof-type (d) is the most popular in towns, possibly because it is based on the traditional rectangular skeleton. Actually, an old rectangular thatched house can easily be converted to zinc when funds are available. Because of the ubiquity of this roof type, there are no marked regional patterns.

(e) Dormer roof: This high-pitched roof limited to the coastal areas of the country, has many Victorian characteristics such as attic rooms nestled in the roof, the presence of a dormer and other forms of embellishments in the roof structure. Up to the end of the Second World War, some of these roofs were tiled but now they are all roofed with zinc - evidence of the changing importance of roofing materials.

(f) Flat concrete roof: The new imported feeling that the

"pitched roof... (is) inadmissible  
... (and that the roof is) a  
proper part of the usable accommoda-  
tion and must therefore be flat",<sup>28</sup>

has made the flat concrete roof become fairly popular for both commercial and residential houses. For residential buildings, it is preferred because some people believe that with luck, they may be able to add an extra storey - something that is not very easy with pitched roofs. Although flat concrete roofs are found in all the large towns along the railway (Bo, Kenema and Makeni), one factor inhibiting their spread, however, is the fact that cement and steel are far more expensive than other roofing materials.

(g) Corrugated casting roof: One disadvantage of the flat concrete roof is that

"in the case of large halls....it  
would be difficult to achieve a  
wide span without recourse to a  
trussed roof or a vault".<sup>29</sup>

Because of this, reinforced concrete roofing is becoming

popular especially in the construction of schools and colleges, but it has not spread to private residential buildings. It is practically absent from the provinces.

Roof types (a) and (b) are simple and inexpensive; from (c) to (g), there is increasing complexity not only in the materials used but also in the method of construction. As only few people or organizations can pay for the most complex roof types, they are greatly restricted in distribution - being, in the main, confined to Freetown and its suburbs (Wilberforce, Kissy, Lumley, Murray Town).

Generally, traditional houses (both circular and rectangular) are found in all urban centres (though the scrap-metal ones are restricted to towns in the Freetown Peninsula). Stoddard however, claimed that

"the main block of the rectangular houses is generally coincident with the Mendelands, Susu, Lokko, Limba, Yalunka and Korankolands"<sup>30</sup>

(Fig.9.6).

These traditional types are disappearing from the urban landscape at a rate which is fastest in coastal and mining towns, but slowest in purely agricultural areas.

The Creole house and its derivatives are associated with the early European impacts on the coast. They are two-or even three-storeyed, usually built of boards and galvanized iron sheeting, and often show Victorian architectural traits. The walls are plain, but the dormer roof is common.

Modern houses are built of either cement blocks or reinforced concrete. Though lacking external embellishments,

"the vertical and horizontal lines of the reinforced concrete...and...(its) Classical symmetry and character together .... give a busy reticulated effect".<sup>51</sup>

The lavish use of steel and plate glass, the multiplicity of windows, and the general predominance of vertical over horizontal expansion are all features of this group. Such modern houses are found only in Freetown, a narrow belt along the railway, and in the main district administrative centres of the country.

The Distribution of House Types in Towns:- Since most of the waves of urban house type modification are first adopted by commercial enterprises, it is not surprising that modern houses are generally found in the commercial areas of large towns. Surrounding this core-area, are houses built in the traditional pattern but composed of imported materials. Actually, every town still has isolated clusters of traditional houses. Such enclaves are either the historical nuclei (as in Magburaka, Yonibana or Kailahun) or former tribal villages which have been engulfed in the urban expansion (Makeni, Bo, Freetown, Bonthé).

A brief discussion of the distribution of house types in Freetown (a town which is not being studied in detail), may make clear the pattern of house type distribution in towns. The traditional houses are generally found in the former

"native" settlements (Dwarzak Farm, Krootown, Ginger Hall), which have become shanties in the urban landscape. Around a central core-area where modern houses have replaced board buildings, is a zone of creole house types. Enclosing the creole houses and the shanties, is a belt of modern comfortable residential buildings.

This pattern is quite similar to what prevails in Bonthe; around a shopping centre with many modern buildings is a belt of creole houses. Almost engulfing the creole buildings is a zone of rectangular bungalows built of imported materials. In this zone are clusters of traditional houses (at Domboko, Kambahuko and Nyandehun).

The above pattern of house type distribution, except for the zone of creole houses, is also found in Bo, and seems to be of general application in the country (Fig.9.8).

Trends in Urban Housing:- In the evolution of house types, no stage is final because they are dynamic. Consequently, we may only show the main trends in evolution. In Sierra Leone the general trend is towards the increasing use of processed materials, and the modernization of household furniture. The Kpakai (the traditional forked chair), and the Mbetei (a raised platform of sticks), have disappeared from urban houses; the traditional round hut is also becoming very scarce. Now one finds polished chairs and tables, and rectangular multi-storeyed buildings. Man in Sierra Leone is really trying to overcome his environment, but he is still far from it.

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SECTION C

CASE STUDIES

The five settlements selected for case study may be arranged on a hierarchical system either as regards population or functional complexity. Since there is, however, a high correlation between their population sizes and functional importance, either of the two hierarchies will be reasonable. The population size hierarchy is, however, preferred because it is more easily evident.

CHAPTER 10YONIBANA - A DECLINING TOWN

Yonibana is located just off the main road joining Freetown to Bo. It is believed that the town's detached nature was due to the attitude of the polygamous Paramount Chief of the Yoni Chief who felt that a road constructed through his town may help accelerate the gradual diminution of his harem. Whatever may be the reasons, the town was side-tracked by the main Freetown-Bo road.

The limits of the town are mainly set by swamps which are also responsible for its division into two sections (the Old Town and the Rochen Kasumbali Section). The presence of 'sacred bush' south of the Old Town has also helped to prevent the southward expansion of this section and its eventual fusion with Rochen Kasumbali.

Situated at the confluences of the Polo, the Bukabai and the Batkent (Figs 10.1, 10,2), Yonibana which is generally below the 250 feet contour is surrounded on practically all sides by alternating uplands and gaps. These gaps are the river valleys of the the Polo system. Further west and south-west of the town, the land is fairly flat.

The town and its environs are localized on the Rokel River Series (Pre-Cambrian), and the soils derived from these

basic crystalline rocks are overlain by a veneer of humus. Grass and farm bush are the characteristic vegetation, and peasant agriculture the main activity.

The rural settlement around Yonibana is dense and many large villages such as Petifu and Roruks (Fig.10.3) are local collecting centres. Fortunately, the town is well-linked with its hinterland by motor roads and tracks. Agricultural products grown in the villages (e.g. Rosand and Maboum, potatoes; Kumrabai Mamila, ground nuts; and Kumrabai Yoni, plantains and okra) are easily transported to Yonibana where they are sold in the central market.

The railway was an important factor in the development of towns like Yonibana since it made them become trading centres. Now, however, the construction of roads has either increased the flow of people to some towns (Bo, Kenema), or helped in the out-migration of people from others (Yonibana, Magburaka). The effect of this emigration is evident in the town's history, its land use and general economic outlook. Furthermore, Yonibana's problems have multiplied.

#### 1. Morphological and Demographic Growth

Many of the present towns in the country were founded either by social and religious nonconformists or by disgruntled minority groups. Yonibana is an example of the latter. The subsequent growth of such settlements had to await the

construction of the railway, the introduction of cash crops and the building of roads.

Before the 1880's there was no settlement on the Polo called Yonibana, and the only village in the area was Pa Kondo's Moseri. From that place people went to coastal areas - notably Sherbro - to buy fish. The Temne fish buyers eventually came in contact with the Poro society of the Mende and Sherbro, and were initiated into it. From accounts by the fish traders, the chief decided to introduce the Poro to Moseri. Consequently, he invited a Sherbro Poro leader - Pa Makonta - from Yoni to help start a Poro Society in his town. Pa Makonta came, and because of his personal charm and kindness, he was elected Paramount Chief when Pa Kondo died. His appointment was however resented and opposed by Pa Kondo's son. After a period of political friction and unrest, Pa Makonta and his followers moved to another site close to the Kamaranka stream, where in the 1880's, he founded a village which he called Yonibana (Big Yoni) in remembrance of his village on Sherbro Island. That village is now the 'Old Town' of present day Yonibana.

Up to 1898, the settlement grew very little (Fig.10.2). Even that small morphological expansion was in an easterly direction as growth in the south and west was impossible because of society bush.

In the early 1900's, the importance of the village as a "society centre", the adequacy of land for agriculture and the establishment of a school helped to attract people to it. By 1912, when the railway reached Yonibana, the village had extended as far as the present site of the Native Administration building and the quarters of the Chiefdom Police.

But the by-passing of Yonibana by the railway in 1912, stifled the growth of the Old Town, and resulted in the development of a new section, Rochen Kasumbali, near the railway station on the opposite bank of the Bukabai stream. The stimulation of trade caused by the railway and the transfer of the school from the Old Town to Rochen (1914), made the Rochen section grow very fast and soon outpaced the Old Town which eventually became fossilised. In 1918, a development which greatly helped the expansion of this new section was the establishment of European commercial firms (A. Genet, Paterson and Zochonis, and Compagnie Française de l'Afrique Occidentale). Because of the resultant population increase, the Evangelical United Brethren Mission built a church in the Rochen section in 1920. By the end of the 1920's, Yonibana was an important commercial centre with educational and religious facilities. Agricultural commodities produced in the vicinity were bought by the firms.

The rapid expansion of the town in the first twenty years of this century was considerably slowed down between 1930 and

1945 for during that period, only the interstitial areas were gradually built over (Fig. 10.2). This was a reflection of the development of new central places in the gold mining area of the Sula Mountains and Kangari Hills. Furthermore, the selection of Makeni and Magburaka as important administrative centres, considerably reduced Yonibana's status as a regional centre.

After 1945, however, two historical factors temporarily injected a new fillip into the town : Firstly, in 1945, Yonibana was linked to Freetown by a motor road. The town once more became a collecting centre for regions not served by rail. Commercial life was considerably revitalised. Secondly, the decline in gold mining forced some miners to go to Yonibana with the hope of getting paid jobs. Because of these two factors, the town grew fast and its population in 1946 was estimated at 2,700.<sup>1</sup> That expansion was mainly in the form of incipient ribbon development along some of the main routes to the town. Along Petifu road and the road to the Bo-Freetown route, sprawling of buildings was halted by swamps.

The railway was an important factor in the growth of Yonibana as a trading centre in the early part of this century, but increased road construction in the whole country, and migration to the mines in the mid-1950's together with the neglect of agriculture,

helped reduce the importance of the town. Yonibana started decaying. Confirming this, has been the moving out of the commercial firms whose empty buildings now remind the visitor of the town's former prosperity. Yonibana which was previously the trading centre for the surrounding area, has gradually lost that to Mile-Post 91. Here geographical location may have been an important factor; Mile-Post 91 being on the Freetown-Bo road. Decrease in the number of taxpayers (Fig. 10.3) also points to this moribund nature of the town.

Yonibana, a twin town, seems to have developed by a process of accretion rather than by fusion (as Makeni). The Roehen section grew at the expense of the Old Town, and the surrounding villages. This section now has not only all the few remaining shops but also the health centre, the schools, the church, the post office and the railway station (Fig. 8.1).

The decline in the town's importance as a regional centre is also evident from the number of closed shops (Fig. 8.7) and from Table 10.1.

The fewness of petty traders (Fig. 8.7) in the town is also an index of the decline in its prosperity. The moribund nature of Yonibana is very marked.

The evident morphological decay or economic decline of the town is reflected in its population trend. In 1927, the

TABLE 10.1GOODS HANDLED AT THE STATION, YONIBANA (1944-1962)

Year	Total Tonnage	Total cost (in £'s)
1944	4,908	-
1945	4,237	3,581
1949	2,383	3,581
1950	1,413	2,823
1951	1,411	3,149
1952	1,360	3,045
1953	972	1,985
1954	405	877
1955	225	515
1956	180	370
1957	140	215
1958/59	323	350
1959/60	150	230
1960/61	63	123
1961/62	43	96

(Source : Annual Reports of the Railway Department, 1944-62).

settlement's population was estimated at about 1,380<sup>2</sup> whereas in 1946 the population was 2,700. The census claims that there were 2,055<sup>3</sup> people in Yonibana in 1963. The decline of the town becomes more evident when it is realised that in 1946, it was the thirteenth largest town, but in 1963, it has been demoted to fifty first position just one less than what it held in 1927.

## 2. Land Use

Although Yonibana is still a very immature urban centre, an attempt will be made to delimit ecological zones. The main land uses are commerce and residence; but within the townscape, other minor types include religion, education, medicine and administration.

(a) Commerce: Yonibana, unlike fairly large towns such as Makeni, Magburaka, Bonthe and Freetown, does not have a well defined commercial core, for shops are scattered all-over Roehen but absent in the Old Town. The absence of a CBD reflects the lack of specialization in commerce. All the shops are all-purpose shops and

"nearly every trader ... stocks matches, cigarettes, kerosine, salt, sugar, soap, soda pop, beer and moderately priced red wine"<sup>4</sup>.

Other goods sold in shops include

"cotton, linen and silk cloth, caps of various materials, head-ties for women, 'lappa cloths', men's shirts, needles and thread, a variety of tinned foods, toiletries .... medicines ... laundry bluing, ink, pots and pans, and a variety of beverages"<sup>4</sup>.

Thus there is no advantage in travelling to another section of the town to buy something which could be got from the nearby shop owned possibly by a friend or relation. Closely related to this is the fact that to the Temne,

"one of the advantages of trade, ... is that it frees one, at least in part, from the arduous physical tasks of farming".<sup>4</sup>

Because of this, some Temne who have managed to save some money (in Moyoso, Dorjahn observed at that it was £25) have opened shops. But since their initial capital outlay is small they usually display their

"goods on small stands in front of their houses, or on their verandahs; only a few have separate buildings as shops".<sup>5</sup>

There has been a marked reduction in the commercial enterprises in the town (Fig.8.7). The European firms (S.C.O.A.; A.Genet;P.Z.) and the majority of Lebanese traders have all moved out. At the beginning of 1964 for example, there were four Lebanese in Yonibana, but by the end of June, one had transferred to Bo and another to Koidu.

Commercial transactions, in the town, are at a low ebb, and will continue to decline because of two main reasons. Firstly, the acquisition by the Sierra Leone Produce Marketing Board of the monopoly for exporting local products, has meant that entrepreneurs have lost some amount of trade. But retail trade alone is not sufficient to justify the continuance of firms and many Lebanese shops in Yonibana, because the purchasing power of the population is very low. Hence they closed down. Secondly,

"before the completion of the direct (Okra Hills) road to Freetown, most traders in this area obtained their goods from Yonibana and many continued to do so until the Kumrabai - Magburaka road was opened in 1946".<sup>5</sup>

This road diverted customers from Yonibana to Magburaka, Kumrabai, and other places more suitably placed for trade.

Two other commercial activities in the town are petty trading and the selling of foodstuffs at the Native Administrative market in the Rochen section. The few petty traders are generally clustered either close to the central market or in the vicinity of schools where they sell ground nuts, bread, bananas and kola nuts to schoolchildren.

The central market, built in 1959 close to the railway, is opened throughout the week. In this market, unlike that of Magburaka where plastics, dishes, dyed and old imported clothes are sold, only foodstuffs including palm oil, ground nuts, and pepper are on sale. Although the market is never full, as is the case in Makeni and Magburaka, there is evidence that many market Mammies live outside the town; for out of every ten interviewed, four were non-residents of Yonibana.

An activity closely related to the distribution of shops in the town is tailoring. On the verandah of the Lebanese shops are tailors who sew the materials bought by customers from the shops. This relationship is also evident in other Sierra Leone towns.

(b) Residential: The absence of a clearly marked CBD in Yonibana means that there is also no area that is wholly residential. In spite of this, it may be observed (Fig.8.1) that residential houses are generally few along the railway line.

From the point of view of health, grandeur and materials used, buildings in Yonibana are either good, fair or bad (see Chapter 9). From a study of Figs.10.5 and 10.6, the town is divided into three main residential groups: the good residential area is a zone that includes the health centre the station and the post office; poor residences are found in the former historical cores of the town (10.7). Fair residential buildings are very widespread.

The evolution of building materials in Yonibana is still very slow. In the Old Town for example, out of a total of about forty buildings, one is concrete, and ten are built of mud finished with a veneer of cement. In the Kasumbali section, although there is a concentration of mud houses in the southern-central, but there are a few examples of concrete and mud/cement houses. In addition, there some houses built with either corrugated sheets or board (Fig.10.5).

In contrast to the evident use of traditional materials for building, the change-over from thatched or grass roofs to zinc ones is very marked (Fig.10.6). In the new town, there are now only a few houses with grass or thatched roofs. The Old Town - a microcosm of conservatism - still has many grass or thatched roofs.

Although there have been some changes in both roof and wall types, the most remarkable change has been in house plans (Fig.10.7). Around 1939, practically all the houses in the Old Town were circular; in the Kasumbali section, around a core area of circular houses was a belt of rectangular houses. Now, the pattern has changed for all the circular houses of the Rochen section have been replaced by rectangular buildings, whereas in the Old Town only four circular houses are still present.

Besides the two major land uses - commerce and residence - other land uses include :

(c) Administration:- Since Yonibana is the headquarters of the Yoni Chiefdom it has the Native Administration offices and the chiefdom prison. All these functions are concentrated in the Old Town. The Chief, who previously lived in that section, now lives at Petifu with his retinue of wives. Closely related to the administrative activities in the Old Town, are the quarters of the chiefdom Police - the people who help lubricate the machinery of administration in the chiefdom must live close to the centre of administration, so that their services may be easily obtained. There is some amount of functional specialization in Yonibana: the Rochen section is the area for commerce and education, whereas the Old Town is mainly concerned with administration. The siting of the District Officer's Rest House close to the Old Town goes to confirm the administrative

concentration in this section.

(d) Education: In comparison to places like Matru, Segbwema, Magburaka, and even Taiama, Yonibana is poorly endowed with educational institutions. The two elementary schools owned by the E.U.B. and the Catholic Mission are both situated on the outskirts of Roehen Kasumbali where there is sufficient space for expansion (Fig.8.1). In addition, such peripheral positions ensure that these schools are relatively easily accessible to children from the two sections of the town (Fig.10.4). But the E.U.B. School seems more central and more easily reached from all sections of the town.

Yonibana's educational importance increased considerably last year (September, 1965) when a Catholic co-educational secondary school was opened. This new establishment is close to the Catholic primary school in the Roehen section. One important factor which determined the school's location was the fact that the present building, formerly the property of a commercial firm (C.F.A.O.), was a free gift from Mr. M. Faunna, a trader of the town.

Situated close to the E.U.B. School is the Experimental Agricultural Station of the Evangelical United Brethren Mission. Here experiments in animal breeding and seed selections are in progress. Soya beans, Brazilian rice (capable of yielding two crops from a single planting), etc. are under experimentation with a view to commercial production.

(e) Religion: As in practically all urban centres, Yonibana has both muslims and christians; hence there is a church (the E.U.B.Church) and a mosque. The church is near the railway, and the close relationship between christian schools and churches (as in Bonthe) is also evident. The position of the church in the Roehen section is rational (Fig. 10.4), for it is here that the bulk of the christian population is concentrated.

The mosque on the other hand, is in the Old Town, where the greater proportion of the people are muslims. Its location like that of the Native Court Barri is anomalous, because it is not easily accessible to the bulk of the population. As a consequence of this isolation, many people in the Roehen section have cemented sections of their backyard which they use for praying.

(f) Recreation: In Yonibana, although football is the most important recreation, there are no public playing grounds. The fields in the town are closely associated with the schools (Fig. 8.1). Friendly matches are sometimes played in the evenings, and occasionally, a visiting team, like the Holiday Makers from Makeni, plays a game with a select Yonibana team. Such matches are usually excuses for injecting a temporary stimulant into the dull social life of the town, because they are usually followed by dancing in the N.A. Market. Battery gramophones supply the music, and the whole market is sometimes lit by a single Aladdin lamp hung at one end and casting only a weak beam at the other.

Besides football and occasional dancing, there is practically no other means of recreation in the town. There are plans for using a house in the E.U.B. Agricultural Experimental Farm as a community centre where people may have access to indoor games (Ludo, Table Tennis, and Draughts), and also read current newspapers. Whether this centre will be well utilized, remains to be proved.

(g) Health: Only a few of the large towns in Sierra Leone have hospitals (see Table 1.1); some others have either health centres (like Yonibana) or dispensaries (e.g. Blama). Yonibana has a resident dispenser (known locally as Doctor) and a midwife. This health centre serves not only the town and its immediate environs, but practically the whole of the Yoni Chiefdom. Actually the dispenser estimates that the number of patients at the centre ranges from fifty to two hundred daily.

The peripheral position of the health centre is justifiable for the area is relatively quiet, and future expansion is feasible. Such a location, however, means that the centre is not easily available to all the town's residents, especially those in the Old Town.

Close to the health centre is the railway station and the post office. The association between these three functions may be explained in terms of distance-cost relationship. Medicines and letters are brought by rail for the centre and the post office respectively, but because of their close association, transportation cost is nil.

(h) Empty Spaces: Since Yonibana is a twin town, many interstitial areas, notably swamps, are still empty and utilized for the cultivation of either swamp rice or vegetables for sale to passengers on the trains. In addition, the empty spaces between houses are mainly used for horticulture and, in a few cases, for arboriculture.

### 3. Functions

Besides being a chiefdom headquarters, Yonibana also has other functions including educational and medical facilities for the surrounding area, a post office and a rest-house. Functionally, this town is not as well developed as towns like Magburaka, Bonthe and Makeni; and instead of additions to its functional table, there have been subtractions from it. The future looks gloomy even as a collecting centre.

The simplicity of the functional composition of the town may be regarded as an index of its stage of urban evolution. When Yonibana flourished, there were many activities, but now commerce has deteriorated, social life is practically dead, and the silence of the night is only occasionally disturbed by the voice of an owl.

### 4. Problems

The problems of Yonibana fall into three main groups : the physical disadvantages of the site, the inadequacy of services, and the economic decline of the town.

Being situated in the valley of the River Polo, the growth of the town in certain directions is not possible. As a consequence, twin development resulted. Now intercourse between the two sections is not very easy, especially at night and during the wet season. Certain amenities sited in one section are not easily accessible to people in the other. Because of Yonibana's site, it would be expected that there should be no scarcity of water but this is not the case. The town usually faces near-drought conditions in the dry season when most of the wells dry up. In the dry season of 1964, for example, all the wells in the town dried up, except the deep well dug by an American Missionary close to the left bank of the Bukabai stream. The inhabitants of Yonibana so appreciated his gesture, that they made the District Officer ask him to supervise the construction of such wells for the whole town. When that is done, the water problem may be alleviated, but at present it is really a hazard to the town, especially when the period of shortage coincides with that of food scarcity. Thus Yonibana is usually beset by two great problems in the dry season - water and food. As it is generally true that people waste a lot of food during the harvesting season (it is during this period that secret societies operate and marriages are common), if it were possible to discourage this wastage and store the food for the periods of scarcity, this problem may also be solved.

On the social plane, Yonibana's problems include the absence of electricity, the muddy nature of the streets during the rains, as well as the unmotorable and sometimes swampy nature of the direct road linking the two sections of the town.

The above problems may be solved if there are sufficient justifications. What may not be easily solved, however, is the outemigration from the town, and the very marked commercial and social decline of the town. Many young boys prefer to leave the land and stake their future in diamond mining; for on the land, one has to learn to labour and to wait, whereas in mining the gain is more immediate. The latter, therefore, appeals more to the young people full of utopian ideas about the world. If diamond mining ceases (being a non-renewable resource), it may be possible to induce the young men to go back to the land. But even then it will be difficult, for most young men may be able to find new jobs in the developing industries.

Many towns in Sierra Leone, including Yonibana, are becoming moribund, whereas a few, either endowed with minerals (Lunsar, Sefadu), or with industries (Kenema, Freetown), are growing at a fast rate. The problem facing both the student of Regional Planning or Protection and of Town and Country Planning is, how to effectively stop this trend.

### 5. Urban Sphere of Influence

Except for a few large towns like Bo, Sefadu, and Kenema, most towns in the country are experiencing a shrinkage in their spheres of influence, due to factors like the continuous pull by the flourishing towns on the economic and population resources of moribund centres, and the general increase in educational and medical facilities in the country.

Yonibana is one of those towns experiencing a marked reduction in her sphere of influence. Previously, she was the centre of education for the surrounding area, but now this has shifted to Magburaka where there are two secondary schools and a teachers' training college. Furthermore, the improvements which have been made in the hospital at Magburaka have also meant that most people in the whole of the Tonkolili District, prefer to go to Magburaka rather than Yonibana where a dispenser may not give them adequate treatment. But although many patients still come to Yonibana's health centre daily, they mostly suffer from minor ailments like common cold, cuts, bites and coughs; for other diseases they prefer going to Magburaka.

In every way measurable, therefore, there has been a marked decline in the importance of Yonibana as a regional centre. Her demotion in the urban hierarchy is still continuing, for many settlements which were previously villages - Mile 91 for example - are gradually becoming more important.

It is only as regards administration that Yonibana's influence seems to have increased, for she was selected as the headquarters of the amalgamated chiefdoms of Yoni Mabanta and Yoni Mamila.

Thus in spite of the advance in urban house types, Yonibana seems on the whole to be only a shadow of her former status. Commerce decreased to a trickle, social life is very dull, and many young boys and girls are moving to attractive and flourishing towns. In essence, the detached nature of the town from the main motor road of the country, the formation of the Sierra Leone Produce Marketing Board, and the concentration of activities like medicine and education in a few towns like Magburaka, are all nails that have helped in the construction of a coffin for the burial of Yonibana as an important urban centre. Other settlements in the area that have shared this town's fate include Mabonto (which was up to 1952 the headquarters of the Tonkolili District), Yele, Kumrabai Mamila and Roruks. Something radical must be done to rehabilitate this region. Whatever method of revitalisation is employed, it must try to encourage the people to go back to the land. This is however very difficult; for almost every Sierra Leonean who had been to school, for even a few years, disdains agriculture and prefers a white collar job. Perhaps industries may help. In fact people in this area believe that if the Farangbaia ores were mined, the economic depression

will be replaced by economic activity and flourishing commercial activity.

"When the Sierra Leone Development Company Limited was operating at Farangbaia for iron ore there was trade in Tonkolili District, but since that Company abandoned mining operations indefinitely we are faced with economic and social stagnation ... which accounts in many respects for the unemployment in Tonkolili District ... We are appealing to you Sir ... that either pressure be brought to bear on the Sierra Leone Development Company to resume operations, or alternatively that consideration be given to introducing other mining companies into the District".<sup>6</sup>

But could the resumption of operations at Farangbaia solve the District's problems?

#### References

1. Population estimated from Tax returns, 1946.
2. Derived from the Village Books of the 1927 Sierra Leone Survey. The number of houses in the settlement is multiplied by 6 to give a rough estimate of the population.
3. This total was the population of the 2 E.A.'s for Yonibana. The settlement, however, has been omitted from the final census tables.
4. V.R. Dorjahn, "African Traders in Central Sierra Leone", Markets in Africa, (eds. P. Bohannan & G. Dalton, Northwestern University Press, 1962), p.73.
5. Ibid., p.71.
6. Paramount Chief Alhaji Masa Kama, "Address of Welcome to the Acting Prime Minister, 12th July, 1964".

CHAPTER 11KABALA - THE NORTHERN FRONTIER TOWN

The northern section of Sierra Leone was until recently, a region of conflict between the Yalunka, the Limba, the Susu and even the Koranko and the Fula. In spite of this, there was an appreciable amount of trade between the upper Niger basin and the north-western coast of present day Sierra Leone. Actually, in the middle of the nineteenth century,

"trading caravans travelled from Timbuktu, Bamako, Segou, Kankan and other centres bringing local produce (and collecting more on the way) with which to trade and barter at the coastal towns and factories".<sup>1</sup>

The intermediate collecting centres were Falaba, Musaia, Samaia and Bumban; whereas the coastal towns and factories included Kambia, Mange, Port Loko, and Magbile. At that time, either there was no settlement called Kabala, or it was a small unimportant village not worth visiting by traders. Even as late as 1895, a year before the proclamation of a Protectorate over the hinterland of Sierra Leone, Kabala is not shown on Cardrew's map of the country's internal trade routes.<sup>2</sup> He distinguished only four major routes: The first was from Falaba either via Bafodea through Karene to Port Loko, or via Koinadugu through Bumban to Port Loko. The second one was from Matotoka through Loko territory to Benkia on the Rokel River. From Benkia, the goods were transported to

Magbile (lower down the river) in dug-outs, and then in larger boats to Freetown. The third route, Cardrew noted, linked Freetown to Mongeri through Senehun. The last was related to the waterways that joined interior southern Sierra Leone to the then ports of Bonthe, Lavana, Sulima and Mano Salija.

The atmosphere of political unrest in the north, did not seem to have very adversely affected normal trade. This continuous latent state of war, however, considerably influenced the siting of individual centres, and the general pattern of settlement. Most places were either perched on inaccessible hill tops (Yataia, Falaba), or sited in easily defensive saddles and valleys (Kabala, Koinadugu, Sinkunia). Usually, the natural defence was improved by encompassing the settlement by ditches and mounds. In fact cotton trees were even planted round the place for the same reason. Tree-ring villages in the north are very prominent on air photographs of this area. Warfare has also influenced both the settlement patterns and the position of centres in the settlement hierarchy within a historical context. For when flourishing places along active trade routes were destroyed, smaller and less important villages then emerged as the new foci. Kabala is the result of such a process. With the burning down of Falaba, Musaia, and Sinkunia (flourishing commercial and administrative centres about 1825) during the Sofa wars of the 1890's, the British, anxious to

have forces close to the frontier, had no alternative but to make Kabala their new northern headquarter. Thus a small traditional village with natural defensive advantages was fortified. Since then, Kabala has become the northern limit for retail trading in the country, as no foreign entrepreneurs are allowed by law to operate north of it. In addition, this town is now an important district administrative centre. Actually, it has also become the medical, educational and commercial centre for the whole Koinadugu District. But due to its isolation from other large urban centres, because of poor communication, markets for its agricultural products - tomatoes, cabbages, and ground nuts - are very limited.

Situated between the 1,000 and 1,500 feet contour, Kabala is "ensconced in its cradle of hills". These ranges which trend either north-north-east to west-south-west or east-north-east to south (Fig.4.1) usually culminate in inselbergs. It was in this cradle of hills that Kabala was nurtured, and the gaps between them became natural routeways to the town. Thus the physical conditions of the site not only protected the settlement, but they also assisted in its emergence as a nodal centre important for commerce and services.

But Kabala has some site disadvantages: Being almost located at the centre of a centripetal drainage system, all the streams either near or within the town are very small, heavily colonized by aquatic plants and in the dry season their

flow is intermittent. In addition, the mountainous nature of the area considerably reduces potential agricultural land. Thus around the town, peasant farming is practically absent except in the valleys where, by irrigation, villagers grow tomatoes, cabbages, and peppers. On the whole, this part of the country is more suitable for the rearing of cattle.

Because of the negative relief features of the area, the scarcity of water, and the pattern of human activity, settlements are on the whole, nucleated, and temporary Fula cattle settlements may be the only examples of dispersed settlement.

#### 1. Morphological and Demographic Growth

Many towns in Sierra Leone (Magburaka, Kenema, Sefadu), grew from a single nucleus, but a few, such as Bo, Makeni and Taiama, developed from more than one nucleus. Kabala, however, does not seem to fit into any of these groups; for a unicellular growth in the first instance, was replaced by a multicellular one based on three nuclei - Yogomaia, Baoria and Kabala.

It is probable that Kabala was not founded before 1820, for Laing, who knew the area reasonably well, makes no mention of its existence. In fact although it may have been in existence by 1895, that settlement was certainly very small. Somewhere, therefore, between 1820 and 1895, local tradition states that a Koranko hunter and tobacco grower called Pa Bala, founded the nucleus of present day Kabala. Formerly, Bala lived in Bitaiia, a Koranko village destroyed during the Sofa raids. But because

of certain family disputes and competition from other tobacco growers, he decided to leave Bitaiia and found an independent village where he may continue growing his tobacco for sale to the Limba. To ensure the success of his venture and to ascertain the best possible site for his village, he went to a sorcerer who told him that the favourite breeding ground of guinea-pigs was most ideal. Such a place may have been very suitable for tobacco cultivation because of the manure from the wastes of the animals. After a period of intensive search, Bala finally found such a site and built a few huts for his family. This settlement was called, by the Limba, Ka Bala. That is, Bala's village. In Limba, "Yaundo kai ka Bala" means "I am going to Pa Bala's village". To improve the natural defence of the area, cotton trees, similar to those round Falaba, Musaia and Sinkunia, were planted round the settlement (Fig. 11.1). Kabala was then a small village mainly composed of members of Bala's extended family.

After the Sofa wars and the destruction of Falaba, and other more northerly centres, Kabala was chosen as the headquarters of administration in the north. As a consequence, a Court Messengers' Barrack was built just west of the hunter's settlement but along the main Falaba road. Since the barracks were in the Wara Wara Yagala chiefdom, the government asked the chief of that area, Pa Koko (and later Pa Lamina) to send a representative to Kabala.

This regent, who was to act in loco regis, was to be responsible for the implementation of government laws (such as the hut tax). Actually, he was to act as a liaison between modern and traditional standards and to help make the former successful. Because of acculturation problems and a general feeling of inferiority complex, the first regent, Kele Kamara, did not live in Kabala, but resided at the village of Yataia about three miles from the barracks. This Limba village had a

"peculiarity that walls of houses are built of stone instead of mud. Instead of being due to some old traditions, this may have originated in shortage of clay up there, an abundance of loose stones and absence of water to mix with clay".<sup>3</sup>

The absence of good road-links between Yataia and Kabala resulted in administrative delays. To solve this, a new settlement (Baoria) about half mile from Kabala was built during Kondowolay's regentship. This new settlement was detached from Kabala and the barracks by forests and the Wassala stream. At the time of the founding of Baoria, the population of Kabala must have increased because of the Court Messengers and their families.

During the regentship of Kele Kamara, history repeated itself for a Pa Yogomah after quarelling with his brother, the chief of Sengbe, fled from Koinadugu the headquarters. As he was declared a persona non grata in his area, he went to seek protection from Kele Kamara of Baoria. The regent, as a sign of

friendship gave Yogomah land west of Baoria and separated from Kabala by the Wassala stream. The settlement founded by this Koranko became known as Yogomaia - the place of Pa Yogomah.

Although it is difficult to accurately date the founding of Baoria and Yogomaia, it is certain that they were in existence before 1910. For it was observed, in that year, that there was sufficient

"space for camping between Kaballa (Kabala) and Yorgoma (Yogomaia) for at least a brigade in the dry weather".<sup>4</sup>

Of the three villages, only Kabala was fairly large. Including the Barracks, it had 104 houses<sup>5</sup> (that is, about 624 inhabitants). That total number of buildings included 12 trader's shops and 40 houses for the Court Messengers. Functionally, Kabala was even at that time an administrative, commercial and medical centre for the Koinadugu District. It had a resident District Commissioner, a Medical Officer and 30 Court Messengers.<sup>6</sup> Furthermore, there was a market and 12 shops. This increasing population and commerce was because relations and concubines of the Messengers came to stay with them. In addition, the presence of a Medical Officer encouraged migration from other areas to the settlement. Finally, the increase population offered an assured market for the agricultural products of the area.

During the First World War, Kabala continued to grow because it was a recruiting centre for soldiers; commerce

therefore correspondingly increased. Thus by 1920, Kabala had grown to engulf the barracks, but Baoria and Yogomaia grew very little.

During the 1920-1950 period, Yogomaia and Baoria grew little, but Kabala continued to grow because of the combination of many factors. Firstly, the construction of a road, which Migeod claims was motorable but for the absence of bridges, in 1922 linking the town to Falaba must have resulted in increased commercial activity and some population increase. When the Makeni-Kambia-Kabala motor road was opened in 1930, Kabala became an important communication town, and its status as a collecting centre was considerably enhanced.

Secondly, with the building of primary schools around the same time, there was a large influx of children from the rural areas, and Kabala's population grew. In 1929, therefore it had a population, including the barracks, of 1,005.<sup>7</sup>

Thirdly, the increase in trade, (especially cattle) after 1930, coupled with the expansion of the hospital and an increase in the administrative staff, encouraged migrations from the rural areas. Even Baoria and Yogomaia experienced some population increase. By the end of the Second World War, Kabala's commercial section consisted of shops owned by both Lebanese and Africans. There were however, no European commercial firms in the town. In 1947, the total population of Kabala, Yogomaia

and Baoria was estimated at 3,064<sup>8</sup>.

Up to 1950, Kabala's expansion was mainly eastwards because westward growth was inhibited by society forest, and in the north, the Wassala was an important limiting factor to the town's spread.

By the end of 1950, Kabala was a large settlement which dwarfed Yogomaia and Baoria; it was bounded in the west by forest, in the north by the Wassala stream, and in the east and south by mountains. These physical factors had great influence on the town's subsequent growth. After 1950, the construction of good roads to join the three settlements encouraged the growth of Baoria and Yogomaia sections - people working in Kabala may now stay in these sections without any great mobility problems. Yogomaia, however, has shown a greater rate of growth than Baoria (Fig. 11.1), partly because of the large influx of Fula both from the surrounding country, and from Guinea - where they are, to some extent, persecuted. Growth in the Kabala section has mainly been in the form of interstitial infilling and ribbon development along the main roads, notably the Makeni road. The three settlements have now fused both morphologically (through ribbon development and increased intra-urban mobility) and functionally (Baoria is the seat of the chief; Kabala is the commercial centre and the base for district administration). The 1963 Census showed that the three settlements had a total population of 4,610. The word, Kabala, is now used

to mean all three settlements. In spite of this fusion, physical influences are still important agents in dictating the siting of buildings, and influencing the shape of the urban unit.

Although Kabala's population seems to have shown a continuous increase, its growth rate has not been very striking. Between 1927 and 63, the town's population increased by 1,040.9%, whereas that of Koidu increased by 11,193%. Kabala's development was previously due to its frontier position. And because of the then remoteness of the north, it became the centre of commerce and trade.

The inception of peace in the country coincided with the gradual evolution of a road-rail network. As trade increased considerably, the reasons for town growth in the country changed; productivity of the hinterland, accessibility to other sections of Sierra Leone, and the availability of services superseded defence; the Police replaced the Court Messengers. Consequently, though Kabala is still growing, centres like Makeni, Magburaka and Lunsar are growing at a faster rate and Kabala is continuously being pushed down the urban rank-size graph of the country. From being the ninth largest town in 1946, it became the twenty-first in 1963.

## 2. Land Use Analysis

As Kabala is without any modern industries, the most important features of the urban landscape are commerce, residence, and administration. Besides these, medicine, education and recreation are also present.

(a) Commerce : As in most large towns in the country, commerce in Kabala falls into three main groups: the CBD, the isolated all-purpose shop and the daily market.

The star-like CBD of Kabala occupies a central location. It is bounded by such features like swamps, and break of slopes (Fig.8.4), churches and schools, an important road junction and a petrol station (Fig, 8.3). Right in the heart of this commercial core is the daily market which gives the CBD a hallow characteristic similar to that of Port Loko. Except for this, Kabala's commercial area is compact.

As in many other provincial towns, there are now no commercial firms in the town; trade, therefore, is concentrated in the hands of Lebanese and Africans (Fig.8.9). Of these two groups, the Lebanese are the main entrepreneurs and generally occupy a central location in the CBD. The only African shop occupying such a location is Kamara's Bar close to the daily market. Specialization in commerce is very uncommon, for as in Yonibana, most shops sell goods ranging from provisions to fairly expensive ready-to-wear clothes. This lack of specialization is an index of the proemial nature of the town's CBD. The association between shops and tailors observed in other towns of the country is also true in Kabala. But the CBD of Kabala, unlike those of Bo, Freetown, Makeni and Kenema, is practically void of petty traders who are mainly found around the market. Generally, where the market is within the CBD (as is also the case in

Port Loko), petty traders tend to cluster round it.

The daily market of Kabala consists of two main rectangular buildings around which are small detached selling sheds. In one of these main buildings, assorted goods like mirrors, palm oil and rice are on sale; the other is partly used as a store and partly as a market for kola nuts. Between these two buildings, are the tables of the fish mongers - frozen, dried or smoked fish sellers occupying discrete positions. Because of congestion in these buildings, many traders have their goods outside. Here, there is usually the tendency for people selling a particular commodity to congregate together (Fig.8.9). Thus one finds clusters of orange sellers, potato and vegetable sellers, and a large group of firewood sellers. (A reflection of the great demand for firewood in the savana regions of the country).

The compact nature of the town as a whole, means that journey to either the commercial centre or the daily market is relatively easy even for people staying at Yogomaia and Baoria. Consequently, isolated all-purpose shops are very few. In fact the only examples are along Makeni Road. Actually, therefore, the isolated all-purpose shop important in Bo, Bonthé and Kenema, is not a viable commercial proposition in Kabala.

Kabala's commercial land use pattern has remained stagnant for some time, for no new shop has been built for over five years, and may stay so for long. The Lebanese are and will remain an important facet in the commercial activities of the

town. Because of the paucity of large central places in this section of the country, Kabala will remain the only important urban centre; actual commercial decline is not evident. In essence the town's CBD is an example of an ossified shopping centre.

(b) Administration: Kabala is both the chiefdom headquarters of the Wara Wara Yagala chiefdom and the administrative centre of the Koinadugu District. This dual administrative role is reflected in the land use pattern - the two occupying different sections of the town. The buildings of the chiefdom administration are found in the Baoria section - the traditional home of the chief. It is from this peripheral location that the town and the whole chiefdom are administered. Concentric circles centred on this administrative building and at 200 feet intervals will show that the building is relatively equi-distant from the outskirts of the whole town. The N.A. Barri's location, therefore, is not as irrational as it seems at first, especially when we consider that it is for the whole Wara Wara Yagala chiefdom.

District administration consists of the police headquarters building and the offices of the District Officer and his assistants. These two administrative units are found in the east of the town. But the police station, the offices of the chief clerk, the forest rangers and the post office, are geogra-

phically contiguous, and separated from those of the District Officer and the Assistant District Officer by the Police Lines. Perhaps congestion in the D.O.'s offices and the presence of Police Lines close to them, necessitated the development of a new administrative cluster. On the whole, the fringing location of district administrative offices is not a very important disadvantage since it primarily aims at serving the district, and most of the workers stay in the nearby government residences.

(c) Residence: In Kabala, there are four distinct residential groups separated by physical features such as rivers and swamps. These zones are: the Baoria residential area, the Yogomaia' section, the government residential quarters and the residential complex of Kabala. Large parts of the former two residential regions are the creation of the post-1950 period, whereas the latter two are essentially pre-1950.

The Yogomaia residential section is associated mainly with Fula and Madingoe (Fig. 11.2); that of Baoria with Limba and Koranko. Kabala section has a cosmopolitan ethnic structure including Syrian, Mende, Temne, Loko, Yalunka and European.

In common with other large towns in the country, the traditional circular hut is disappearing at a very fast rate (Fig. 11.3). In Yogomaia and Baoria, for example, it has been replaced by the rectangular house built of dried dirt bricks, finished with a veneer of cement and roofed with zinc.

Looking at these areas from a distance one has the impression that they are labour lines. For the houses which were built around the same period are all bungalows and have similar plans. This monotony of house types contrasts with the diversity in Kabala where modern concrete storey buildings may stand close to a one-storeyed house built of board and zinc and covered with corrugated sheets. These contrasts reflect the gradual rate of expansion of this section.

Different from the house types in Kabala section but similar, in some ways, to those of Baoria and Yogomaia, are house types in the government residential area of the east. The buildings of the police barracks are all similar; those of the clerks are all built on the same plan; whereas the residences of the senior civil servants are, to some extent, similar.

During the past two decades, these different residential regions have grown at different rates and by different methods. Yogomaia and Baoria have grown fastest. Here growth has been mainly in the form of ribbon development. In the Kabala area, the comparatively slow growth has been mainly in the form of interstitial infilling. The government residential area has hardly changed.

Although the shape of the different residential areas reflects clearly the orientation of the mountain ranges around the town, the direction of flow of the main streams, and the

distribution of swamps, superstition also seems to have had some influence. The buffer area between Yogomaia and Kabala has remained unused because of the belief that it is the home of a river devil - in the form of a snake. Actually people never like crossing this swamp at night. To go from Kabala to Yogomaia, therefore, they usually go via Baoria.

The residential unit in Kabala is usually a rectangular bungalow. For the Fula community, however, it is a compound consisting of a bungalow and one or more small gable roofed buildings. These latter houses are found inside the compound and have no direct communication with the street. Hence their occupants have to pass through the main bungalow (Fig. 11.3).

Because of the town's functions, it has developed other land uses including medicine, education and religion.

(d) Medicine: Kabala has the only hospital in the whole Koinadugu District. Other medical establishments in the district consist of a mission dispensary at Yiffin, a health centre at Falaba and treatment centres at Fadugu, Bendugu, Koinadugu and Bafodea. Kabala is therefore a very important medical centre for the district as a whole. Consequently, the raison d'etre for hospital location in the town should not be geographical centrality, but the availability of land for expansion. Within the town itself, the peripheral location of the hospital is not a disadvantage - Kabala being a compact settlement.

(e) Education: The educational facilities in the town are also concentrated in the Kabala section, the section with the largest population. There are two main primary schools (the Roman Catholic school and the District Council school), a newly founded (1961) secondary school, and a school mainly for the children of foreigners (on a hill just outside the precincts of the town). All these educational institutions are spatially distinct, and have been so located that there is room for future expansion. The District Council school is found just north-west of the CBD; whereas the Catholic primary one is situated on a small hill on the quieter south-western periphery; while the Catholic secondary school is found just off the main Makeni road near the Catholic primary school.

Because of the absence of urban transport, the location of the District Council school is more rational than that of the Catholic school, as it is within easy walking distance of all sections of the town. One is not therefore surprised that the District Council school used to have more pupils. Now, however, the Catholic school, because of better performance in the "Common Entrance" examination to secondary schools, has a larger enrolment. Certain factors often become more important than an advantageous geographical location.

The secondary school's peripheral location is no disadvantage for it is the only one in the town, and it is designed to serve

the whole district. Since it is a boarding school, it also caters for pupils from places like Freetown, Bonthe, Sefadu and Kailahun. Here desire to study outside one's immediate vicinity is evident.

(f) Religion: The population of the town includes both Christians and Muslims, although the Muslims out-number the Christians. Kabala has two churches and two mosques. The Catholic Church is situated very close to the Catholic Primary School and the Anglican Church which is infrequently used, is within the District Council School compound, i.e. it is located in a central place which might be easily reached from all parts of the town.

Of the two mosques, the 'Town Mosque' is situated close to the market in the Kabala section, whilst the other, 'Fula Mosque', is found in Yogomaia. The location of these two mosques is rational. Since the Town Mosque is supposed to be for the whole town, a relatively central location is very advantageous. The Fula Mosque (built in the early 1950's under the directive of Pa Alimamy Jalloh) is naturally situated in Yogomaia where the bulk of the population is Fula. Looking at it from another angle, it may be seen that the Town Mosque is found in the Wara Wara Yagala chiefdom, whilst the Fula Mosque is in the Sengbe chiefdom. The idea of being different seems to be stronger among the inhabitants (the Fula) of Yogomaia than among those of either Baoria (with its predominance of Limba)

or Kabala. This idea may also have been perpetuated by the fact that Baoria and Kabala sections are in the same chiefdom, whereas Yogomaia, because of historico-political reasons is in the Sengbe chiefdom. The distribution of slaughter houses also reflect this distinct between the two chiefdoms, for one is located in Yogomaia whereas the other is between Baoria and Kabala. Here we see examples of political factors influencing urban land use patterns.

(g) Recreation: Besides the infrequent dances at the Community Centre or at the Flamingo night club situated on the Makeni Road, football is the only means of recreation in Kabala. In addition to a public playing field at Yogomaia, all the schools and the police have playing fields. Matches are often played between local teams, but sometimes select teams from the other districts come to play. These games are usually followed by dances at the Community Centre. The public playing field at Yogomaia was previously the place where the inter-town or inter-chiefdom wrestling matches were held. These games have been discontinued, and Kabala is now mainly dependent on football. A lawn tennis court found close to the Prisons is used by only a few people, it does not attract spectators. The Flamingo night club along Makeni Road, is mainly patronized by visitors and children, for housewives are prevented either by their husbands or on religious grounds to attend night clubs. Its location is however, ideal since it is detached from the town's

main built-up area. The recreational facilities in the town are poor and should be considerably improved.

### 3. Demographic and Occupational Analysis

Although Kabala's rates of growth are less than those of Makeni, Magburaka and Lunsar, the town's population is still increasing. This centre's population increased from 1,005 (for Kabala and the Barracks) in 1929 to 3,064 in 1946. By 1952, the population was 3,182, and at the time of the 1963 census, there were about 4,610 people in the town.

This marked increase in the 1929/46 period is partly because during 1929, Kabala and the Barracks constituted a single settlement distinct from both Baoria and Yogomaia, but in 1946, the three were regarded as one. The small increase during the 1947/52 growth phase was due to the fact that in-migration from the rural areas had slackened, because Marampa and the gold mines of the Sula Mountains and the Kangari Hills became greater attractions. In Kabala, there were practically no new activities to attract a large number of people. The population increase in the 1953/63 period is probably because the 1952 figures were mere estimates (hence larger margins of error), whereas the 1963 one was based on an actual census. Furthermore, this increase reflects the large influx of Fula from Guinea to northern Sierra Leone.

Kabala, like many other centres outside the mining areas, has an excess of females. Actually, there are 1,028 females to

every 1,000 males. This female predominance may be due to the fact that most of the young men prefer to migrate to more prosperous parts of the country, especially the Freetown Peninsula and the mining areas. The widespread nature of polygamy in Kabala may also help explain this female excess.

TABLE 11.1

## AGE STRUCTURE, KABALA (1963)

Age Groups (in years)	Males	Females	Total
Under 5	400	434	834
5 - 9	336	331	667
10 - 14	251	219	470
15 - 19	209	247	456
20 - 24	202	221	423
25 - 29	181	257	438
30 - 34	173	195	368
35 - 39	121	121	242
40 - 44	110	97	207
45 - 49	96	71	163
50 - 54	77	56	133
55 - 59	30	14	44
60 - 64	22	30	52
Plus 64	65	44	109

(Source; the 1963 Census)

Kabala has an active population (i.e. between 15-64 years) of 2,530 i.e. 54.9% of the total population. This gives a dependency ratio<sup>9</sup> of 81.8. Such a high ratio is a reflection of the low level of productivity of the population as a whole. Of the remaining population, 42.8% are in the young age group of 0-14 years, only 2.3% are in the "older years" group. Thus one has an index of aging<sup>9</sup> of 5.4 for the whole population.

Some special features about the age structure of Kabala (Table 11.1) considered as a whole are: the excess of males in

the age group (65 +); the excess of females in the 0-5 years group, and the excess of males in the 5-14 years sector. In the active age group (15-64) females out-number males.

The population composition of Kabala is very diverse, but besides the Koranko-Yalunka-Limba group, the Fula and the Madingoe are the largest groups. Although different tribes do not occupy specific sections of the town, it is evident that Fula are the most numerous in Yogomaia (Fig. 11.2), whereas the Limba are predominant in Baoria. In Kabala, the Koranko-Yalunka group and the Fula are the most important.

The general relationship between the different tribal groups is cordial although the Fula seem to prefer the Madingoe to the Limba; this is clearly reflected in the fact that the population of the Yogomaia section is almost practically composed of Fula and Madingoe.

The Fula are mostly cattle owners; the Madingoe petty traders; the Limba farmers; whilst the Koranko-Yalunka group are engaged in diverse jobs ranging from teaching through administration to farming.

According to the 1963 census, 1,454 people above the age of 10 years were employed in Kabala. In other words, 31.7% of the total population were employed, or 48.7% of the population over 10 years of age had some gainful employment. Occupational breakdowns of this employed population (Table 11.2) show that 33.5% work in agriculture, and forestry. Of the twelve district

TABLE 11.2EMPLOYMENT STATUS BY MAJOR INDUSTRY GROUP, KABALA (1963)

<u>Industry Group</u>	<u>Number Employed</u>
Agriculture, Forestry & Fishing	489
Mining and Quarrying	-
Manufacturing	239
Construction	67
Electricity and Water	19
Commerce	322
Transport, Storage & Communication	105
Services	213

(Source: the 1963 Census)

headquarters, this percentage is only lower than those for Kailahun (41.0), and Sefadu (37.9). Within the actual secondary and tertiary sector, commerce is the most important group employing about 22.1%. This reflects the town's importance as a local collecting and distributing centre. But all the other district centres of the northern province have higher percentages employed in this group - Magburaka (31.2), Makeni (30.2), Kambia (24.0), Port Loko (25.2). Kabala's importance as an administrative, education, and medical centre is clearly evident from the fact that 14.3% of the gainfully employed population work in services. This percentage is, however, low in comparison to 21.9 for Freetown, 19.4 for Bonthe and 24.5 for Kissy. Actually in Kabala itself, more people are engaged in manufacturing (16.4%) than in services. The 16.4% in manufacturing are engaged in the making of native dyed clothes (gara, and wax work), the slaughtering of cattle, the tanning of

hides, and the manufacturing of miscellaneous handicrafts and food products. Of the other occupational groups, transport, storage and communications is the most important (7.2%). Here the nodal status of Kabala is evident.

#### 4. Urban Problems

Kabala is not within easy reach of any large or reliable source of water. This fact coupled with the growing population of the town has made healthy drinking water a scarce commodity. Plans to dig artesian wells have temporarily failed since the parent rock underneath the whole town consists of very thick impenetrable igneous and metamorphic rocks. In the Five-Year Development Plan, the question of supplying Kabala with water is a top priority.

The town's actual site may have some advantages such as its being a gap, but its geographical location in Sierra Leone makes it outlandish and isolated; Makeni the nearest large urban centre is about 75 miles away. The difficulty of getting commodities to and from Freetown is quite considerable. It is not therefore surprising that half a pint of Guinness is three shillings and six pence (thirty five cents), whereas in Freetown it is two shillings and six pence (twenty five cents). Actually the area around Kabala is suitable for the economic production of vegetables, but the problem of easy accessibility to market tends to discourage increased output. A suggestion that vegetables may be sent out by air, does not seem, at

present to be a sound economic proposition. Perhaps new methods of production and marketing may ease the situation. Previously, farmers were able to learn about new techniques and new plant types from Agricultural shows, but none has been organized in the town since 1953.

Kabala's "out-of-the-way" location has also had a great influence on education in the town. Since teachers all over the country get a flat rate of three pounds (Le6.00) for travelling, those outside the Koinadugu District never like going to work in Kabala. This is understandable since it costs far more than six leones to make a return journey from Freetown, Bo, Bonthe, or Kailahun to Kabala. Thus the recruitment of staff is a great problem, which may only be solved if the policy of paying travelling allowance is changed, or if teachers are given other inducements.

The town's hospital is ill-equipped; most of the modern amenities like X-ray are absent. Consequently serious cases are usually sent by road to Magburaka - a distance of about 90 miles. Because of the distance and the arduousness of the journey, patients sometimes die on the way. In 1964 for example, four expectant women died whilst travelling to Magburaka.

The problems of Kabala are many, and they can only be solved through serious planning by the central government.

In the Five Year Development Programme, there are plans to help solve the above discussed problems. But the people of Kabala can also help in this by the development of a sense of co-operation, such as the formation of co-operatives.

Kabala has many functions which it performs for the whole district, but in some cases - as in education and medicine - these functions are quite inadequate. Consequently, she herself is dependent on towns like Magburaka and Makeni. On the whole, however, Kabala is still an important commercial and administrative frontier town.

#### References

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3. F.W.H. Migeod, A View of Sierra Leone, (Kegan Paul, Trench, and Trubner & Co. Ltd., 1926), pp.59-60.
4. Military Report of the Colony and Protectorate of Sierra Leone, (Vol.II., Routes, 1910), p.39.
5. Ibid., p.156.
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8. From tax returns, 1947.
9. See Chapter 3 for formulae used for calculating the dependency ratio and the index of aging.

## CHAPTER 12

BONTHE -- A MORIBUND PORT

The history of Bonthe, both as a port and a town, is essentially related to the evolution of the communication network of the country. It developed as a port and an important commercial centre when water transport was the only link between the interior and the coast. But with the development of a road-rail network, and the corresponding decline in the importance of water transport, Bonthe gradually lost its share in the export trade of the country. In 1860, Bonthe exported 50,000 tons of palm kernels, but one hundred and ten years later, it only exported 9,090 tons of kernel. Actually, in 1899, Bonthe and York Island shipped about 67% of the kernels exported from Sierra Leone, but in 1963, Bonthe was responsible for only 8.7%. The decline in export trade is reflected in the commercial activities of the town; for most of the commercial firms have closed down, and Bonthe has lost its former liveliness.

The coastal section of southern Sierra Leone is essentially a complex delta jointly formed by the Gbangbaia, the Jong, the Sewa, and the Waanje Rivers. One characteristic feature of this area is the many off-shore islands. The largest of these, is the Sherbro Island on whose eastern

coast the town of Bonthe is sited. Actually,

"so lowlying is the island that its tree-tops are seen before the land itself is visible".<sup>1</sup>

To prevent the settlement from flooding, a sea wall has been built along the coast. Off Bonthe, are many small islands which previously helped protect the port from strong winds. But because of continuous silting of the approaches of the port by sediments brought down by the Kittam River system, the Sherbro River and the Shebar Strait (north-east and south-west of the island respectively), have become shallow. Thus unlike the 1900's when 5,000-ton ships anchored very close to the town, they now berth at Yangesei Point about seven and a half miles from Bonthe. In fact this silting prevented ships from using Shebar Strait as early as 1923. Writing about Bonthe at that time Migeod observed that

"steamers lie a couple of miles to the north and near York Island. No vessel now comes in over the Sea bar (Shebar), but in former days it was regularly used".<sup>2</sup>

Except for a few isolated areas, especially former beach ridges, Sherbro Island is essentially swampy (Fig. 4.1). As a result, cultivated areas are rather sporadic and agricultural holdings are small and greatly fragmented. The sandy nature of the soil coupled with the primitive agricultural implements, limit the crops which may be economically produced.

Hence although cassava, bannanas and other vegetables are produced on the island, Bonthe is, in the main, an importer of food. Firewood is also imported. Since the island is swampy, it is difficult to find a source of good fresh water for the town. And though Bonthe is traversed by a stream, the town gets its water mainly from wells for this stream is brakish.

The sandy swampy soil militates against the construction of tall buildings because of the difficulty of laying good and lasting foundings. Even if such houses are erected, they are likely to sink, crack and finally fall. But as the area is flat and sandy, expansion is not difficult, and sand for building is easily available. One other site advantage is its easy defensibility. This was a factor that made Bonthe supersede Bendu as the main centre of British administration in Sherbro. In fact it was because of this, that Bonthe became a haven for Europeans and Creoles persecuted, on the mainland, during the 1898 Hut Tax War.

Bonthe is the only large settlement on Sherbro Island, for within a radius of 32 miles, there is no centre with over 500 inhabitants. Other fairly large settlements - Delken (457), York (451), Moborky (366) and Gondama (202) - are widely spaced and act as regional centres. On the whole, small nucleated settlements are the characteristic form of rural

settlement. The majority of these villages avoid the swampy regions, but where this is not possible, stilt houses, above high water level, are built.

Sherbro Island has no motor roads, and communications between Bonthe and the rest of the island is mainly by sea. Actually, Bonthe is only accessible from the mainland by water. Hence there are regular launch services between the town and centres like Matru, Pujehun, Sembehun and Freetown.

On the whole, the swampy environment, the inadequacy of roads, the patchy nature of cultivable land, and the rather unproductive hinterland have made Bonthe and its surrounding settlements look seawards rather than inland. In essence, Bonthe's hinterland has not helped in saving the town from morbidity; instead it has aggravated its problems by increasing rural/urban migration.

#### 1. Historical and Demographic Growth

Although the development of permanent settlement on the Sherbro coast dates from the early 16th century due to the slave trade and commercial trade in general, the settlement of Bonthe was first mentioned in the 1840's. At that time, Bonthe was a very small village.

"It appears .... that a village called Bonthe existed on the present site before the settlement there of traders and missionaries. In the account

in the manuscript of the Caulker Wars of the late 1840's Bonthe is mentioned as one of a number of small villages (Yoni, Mocolo and Bonthe are mentioned by name) on Sherbro Island"<sup>3</sup>

(Fig. 12.1).

The village which eventually became the centre of Heddle's Sherbro trade, subsequently developed as a small trading centre with warehouses and agents. And

"it is probable that the presence of a fairly large trading establishment attracted other smaller traders, and in a letter of February 8th 1853, Nathan describes his place (Bonthe): 'I have a small town on the Sherbro Islands within sight of Bendoo and all the British factories, with 40 houses, a good supply of fresh water and a small parade ground'"<sup>3</sup>

Up to 1867 Bonthe was essentially Heddle's settlement, but in 1868, four developments not only increased the town's importance, but also laid down the basis on which it was to develop. The first of these, was the transfer of Captain Walshe from the mud built government houses at Bendu, to Bonthe

"where Heddle let his factory as government buildings. Now the seat of government with the Mendi Mission across the swamps at Nyandehun, Bonthe superseded Bendu as the main Sherbro town"<sup>4</sup>

In the same year, the channels of the Sherbro River were surveyed and buoys were installed to mark the channel of deep water. Then W.B.J. Lawson drew plans of York Island and Bonthe

"showing the street pattern much as it was to remain for eighty years".<sup>5</sup>

That was the origin of the grid-iron pattern still evident in Bonthe (Fig. 4.1). In fact it was on the basis of Lawson's plan that the land around the then settlement of Bonthe was divided into plots by parallel streets running either east-west or north-south. The fourth development, in that year, was the bridging of the swamp between the settlements of Bonthe and Nyandehun by Heddle. All these factors led to an increase in the population of Bonthe. Thus by 1891, there were about 4,472<sup>6</sup> people in Bonthe and York Island.

The next factor in the growth of Bonthe was the 1898 Hut Tax War. During that war, Bonthe became a haven for persecuted missionaries, Creole traders and converted natives. In addition, with the destruction of the other trading ports on the mainland, Bonthe's status as a trading centre increased considerably. Since water transport was then the only means of communication with the interior, the settlement's importance as a shipping and importing town continued to increase. Commodities produced in the interior were brought down to heads of navigation by head portage. From there, they were transported

by river to Bonthe and thence to Europe. In fact

"until the oil-palm belts of the hinterland were brought into direct touch with the port of Freetown by the railway, the trade of the Colony was dependent on the waterways, a very large proportion of the palm-products exported being brought down the rivers which combine to form the Sherbro and passing through Bonthe".<sup>7</sup>

Because of this trade, many European commercial firms were set-up in the town. By 1914, many firms such as Deutsche Kamerun Gesellschaft, Paterson and Zochonis, United African Company and Compagnie Française de l'Afrique Occidentale, were well established. In 1927, therefore the town's population (without York Island) was estimated at 5,400<sup>8</sup>, and the lots parcelled out by Lawson were all built upon by that time.

The increase in trade following the end of the Second World War resulted in the building of houses in the south where the rectilinear outlay was absent. Hence the hotch-potch nature of houses in that area.

The post-1950 period is not characterised by any marked morphological expansion except in the west where a few houses have been built mainly along the main roads. Any expansion of the town would have to await the introduction of new activities capable of attracting more people.

Around the turn of the century, Sierra Leone had several

ports: Freetown, Bonthe, Sulima and Mano Salija (in order of importance). Mano Salija became defunct after the institution of a customs check-point in the town because the only impetus (to avoid customs) was removed. Sulima died a natural death with the gradual silting up of its approaches and the narrowing of the estuary of the Mano river by a westward growing spit. Bonthe tried to hold on, but her one time prosperity was first replaced by stagnation and then by a real decline.

In every way measurable, Bonthe has passed her prime. Her trade in palm kernels has decreased from about 50,000 tons in 1860 to only 4,558 tons in 1963. Actually, since 1936 the tonnage of kernels exported through Bonthe has continuously declined (Table 12.1). This decline in export is partly due to the formation of the Sierra Leone Produce Marketing Board with an export monopoly for these commodities. Thus commercial firms which previously exported direct from Bonthe now have to either sell to the Board, or discontinue trading in these commodities. Some firms (U.A.C. and S.C.O.A.) have chosen the latter and have not only ceased trading in them, but have closed their shops. In addition to the above, is the fact that produce which was previously collected in Bonthe from places like Sumbuya, Matru and Shenge (Fig. 12.2), is now diverted to Freetown via Bo, the S.L.P.M.B. headquarters in the Provinces.

The number of ships visiting Bonthe annually may show an increase, but the tonnage cleared has decreased (Table 12.2).

Since the trend in ship building is towards larger ships, it means that most of the ships visiting Bonthe in recent years were never loaded to capacity; a reflection of the fact that Bonthe's share in the export trade is decreasing.

TABLE 12.1

## PALM KERNEL EXPORT, BONTHE

Year	Tonnage Exported	% of National Export
1925	17,185	38.6
1928	16,906	36.9
1930	17,624	31.1
1932	24,183	31.3
1936	26,334	31.1
1939	23,383	30.1
1945	16,454	30.4
1956	14,610	25.1
1958	10,057	18.4
1960	9,090	16.6
1963	4,558	8.7

Source : Trade Reports, Sierra Leone, (Government Printing Dept., Freetown, 1925-63).

TABLE 12.2

## NUMBER OF SHIPS LOADED AT BONTHE

Year	No. of ships	Tonnage Cleared
1905	32	46,743
1929	30	45,687
1938	15	41,782
1954	14	19,547
1955	18	17,425
1960	30	14,254
1961	36	14,473
1962	34	12,110
1963	33	10,516

Source : Trade Reports, Sierra Leone, (Government Printing Dept., Freetown, 1954-63), and Blue Books, Sierra Leone, (Government Printing Dept., Freetown, 1905, 1929, 1938).

One could also get an idea about this morphological stagnation of the town from a Missionary who first came to Bonthe in 1912, and returned again about 1952. While Matru on the mainland had grown out of recognition, Bonthe was little changed in appearance from the day he first came there to preach and teach.<sup>9</sup>

Bonthe is now really a moribund port; many lighters used in loading ships have disappeared and the

"children, who continuously walk between the store and the wharf, carrying baskets known as 'blies' full of palm kernels upon their heads, and no clothing on their dusty bodies"<sup>10</sup>

during the time of Alldridge have vanished.

"Before the railway had been built or motor cars thought of, the rivers brought down a legitimate flow of trade to Bonthe, so that the virtuous Victorians could see the just hand of Providence at work. In 1900, Bonthe did half the trade of the territory (Sierra Leone), and 5000-ton steamers anchored up the estuary in view of the town".<sup>11</sup>

But Bonthe has now been

"crumbling into the past like the gravestones of the Swiss and the German pastors who laboured here sixty, seventy, eighty years ago, so sure that they were building something on this spongy soil".<sup>12</sup>

If the crumbling gravestones are repaired and whitewashed, the sign of decay and age may, at least for a time, disappear. Similarly if the crumbling economy of Bonthe is resuscitated and revitalised by new industries and additional activities, the town may have a new lease of life, at least for a time. How soon Bonthe will again become the lively, bustling and active town of the south, is difficult to say. Actually, it is more likely that the town may continue to decline.

## 2. Land Use Analysis

The historical evolution of Bonthe has resulted in the development of distinct ecological zones. The most important ones being the commercial area, the administrative sector and the residential sections. Other types of land uses include education, religion, recreation, medicine and transport (Fig. 8.1).

(a) Commerce: The shopping centre previously included three groups of traders: the European commercial firms - Compagnie Française de l'Afrique Occidentale (C.F.A.O.), Paterson and Zochonis (P.Z.), United African Company (U.A.C.), and the Société Commerciale de l'Ouest Africain (S.C.O.A.); the retailers (Lebanese and Africans) and the petty traders. The Lebanese entrepreneurs are mainly concentrated on Medina Street but some are now gradually taking over the former premises of the commercial firms (Compare Figs. 12.3 & 8.8). These maps also give an idea of the spatial distribution of the various trading concerns in 1953 and 1963. They show for

example, how the Saturday night market had been discontinued, and how there is a gradual increase in the number of petty traders.

The present geographical distribution of these commercial types (Fig.8.8), may be explained in terms of the historical evolution of the town's business district. The firms, which were the first to be established, are all along Heddle Road and the empty lots between them were not utilized for residential purposes because of a regulation that for residential uses

"no land of any description shall be granted having water frontage, a boundary of which shall approach nearer to the waterside high-water mark less than fifty feet".<sup>13</sup>

These empty lots have been subsequently built over by Lebanese who tried to settle as close as possible to the commercial firms so as to minimise transportation - Bonthe being without commercial vehicles. As a result of the limited space along the waterfront, most Lebanese settled along Medina Street. The petty traders, the last comers and the least competitive, had to settle in the interstitial areas between the already established commercial infrastructure.

Bonthe now has only a market which is open throughout the week. Previously, however, there was also a small market along Medina Street, by the hospital, and a Saturday night one along Victoria Road (Fig.12.3). The location of the present market near the coast, emphasises the concentration of activities

in this zone. While clerks are busy typing in the administrative buildings in the north, the "market - mummies" are shouting at the top of their voices to attract customers, and on the government jetty, launch owners are coaxing passengers.

Another profitable commercial proposition in the town, is the selling of drinks. Although the distribution of bars shows no distinct pattern, it is, however, evident that each local area of the town is served by a bar which also sells small consumer goods including tinned tomatoes, sweets and cigarettes. In Bonthe, as may be the case all over Sierra Leone, the criteria for a popular bar includes selling cold drinks, supplying music and crediting customers. Thus although bars are diffused, many people generally cluster in a few. Furthermore, some customers who are never punctual in paying their debts, loose favour with the proprietor and thus change their bar. In fact this factor helps explain the mutable nature of the centre of gravity of alcohol consumption in the town. Within the last twenty years, the geographical centre of consumption has changed about five times (Fig.12.4). During this period, however, the trend has been towards a more central position. In a town without public transport, a central position is an excellent rendezvous for meeting friends, and discussing politics.

(b) Administration : Both the offices of the Town Council and the District Administration are located along the coast, but the Town Hall is more within the built-up area (at the

junction of Medina Street and Heddle Road). In contrast, the district administrative buildings are in the extreme north close to the government residences. The area is quieter, and directly under maritime influences.

(c) Residence: The main residential complex of the town is found in the west where houses are generally located in enclosed compounds with large back-yards. These houses range from mud huts with thatched roofs to modern concrete buildings with internal toilet and cooking facilities. Locationally, mud houses are generally found inland and seem to be built by the indigenous people, who because of their low income, cannot afford better houses. Mud circular houses are especially common in the south-west, and the extreme north-west. That is, they are mainly peripheral to the former settlement of Bonthe where the traders lived in rectangular concrete or board houses. Concrete houses are mainly concentrated along the coast (Fig.12.5); in other areas they are more localized and tend to be replacing either the mud huts or the old delapidated Victorian board houses which were originally numerous along Victoria Road, and Medina Street - areas previously associated with Creole traders.

Bonthe, therefore has

"a commercial core of Lavantine and European types, surrounded by a mass of true Creole houses with a very large number of indigenous rectangular ones (and even the occasional African circular houses) creeping in on the edges".<sup>14</sup>

Plans of residential houses in Bonthe may be grouped into two main categories : the circular and rectangular types. The circular ones include the simple circular plan, the verandah circular layout and the circular-rectangular plan. In essence, one could trace in Bonthe the gradual development of the circular hut in response to external influences (new building materials, new house types, and improved sanitation). Certainly the circular plans are undergoing structural modifications due to the influence of the rectangular plan. The rectangular layouts are also very varied, for besides the simple type with detached kitchen and toilet there are modern rectangular concrete ones. We also find mud/concrete buildings with attached pent houses serving as kitchen and toilet. In future, the rectangular houses will replace the circular ones partly because of the feeling that the circular building is "bush", whereas the rectangular one is more sophisticated and more suitable in an urban centre, and partly because the government (for sanitary reasons) favours the rectangular to the circular.

There are no clear-cut correlations between the distribution of house types and ethnic groups in Bonthe. In fact there are no evident ethnic core-areas in the town. A Mende, a Temne and a Fula may all stay under the same roof. In a house, there were, in 1963, ten Mende, one Madingoe, and five Susu, whereas another housed a Sherbro, three Via, five Temne and one Madingoe. This absence of tribal quarters may be due firstly, to the dominance of secondary and tertiary activities which tend to minimise

tribal segregation; a Mende and a Temne may be working in the same shop or commercial concern. Secondly, the morphological evolution of the town on the grid-iron pattern has not encouraged tribal conglomerations, since people are told where to buy land and build houses. Lastly, the presence of a lingua franca in the form of Krio had made communications between different ethnic groups easy. Hence no real desire or advantage to stay close to one's tribal group.

In Bonthe, however, there seems to be some relationship between the type of house, social status and the distribution of wells and toilets.

As the digging of wells is expensive, they are generally absent from mud houses, few in mud (finished with) cement houses and found in almost every concrete house. Actually mud houses often have only the crude unhygienic ones, whereas the best deep cemented wells are common in concrete buildings. Furthermore, the distribution of private wells is also affected by that of government ones which are concrete, deep and well cared for (Fig. 12.6). Where found, people prefer getting water from them, and houses in that vicinity are often without private wells.

Bonthe seldom experiences water shortage. But what the town lacks, is the availability of good water supply for all irrespective of social and economic status. At present, the type of well may be regarded as an index of social status:

deep cemented ones are associated with "well-to-do" people whereas the shallow, unhealthy and uncemented wells are characteristic of "hewers of wood and drawers of water".

As Bonthe is dependent on wells for its water supply, because of fear of increased contamination, both the traditional 'hole' and the modern flush toilets have been discouraged. Thus practically all the toilets consist of pails which are emptied at regular intervals. Since this type of toilet needs constant attention, it is only found in those residential houses whose occupants are rich enough to pay for this new item in the family's monthly budget. In fact, as in the case of wells, the presence of government toilets in a neighbourhood usually discourages the construction of private ones. But it would be erroneous to feel that this is always the case, for some houses close to government toilets have private ones, both because the occupants can afford them and because public toilets are filthy and unhygienic.

On the whole, concrete houses are generally reasonably supplied with toilets and wells. The mud/cement ones usually have unhygienic toilets and surface wells without cement lining. Finally, mud huts have practically no toilets and few shallow, uncared-for wells.

Besides the above land uses, certain urban functions have dimensions. They are therefore visible features in the

townscape. Here the most important are medicine, education, and religion.

(d) Medicine: The only hospital in Bonthe is located in the extreme west at the junction of Medina Street and Pie Mary Street; a reasonable position since it is almost equi-distant from the extremities of the town (Fig. 12.7). One will realise the suitability of its position when it is considered that hospitals are generally anomalous in their distribution. Actually, this peripheral location is to some extent ideal for patients on Sherbro Island, but because of poor communications on the island, this ideal situation is not fully exploited. Most of the patients outside Bonthe who use the hospital come by sea. In the light of this, its interior position is anomalous for a coastal position may have benefitted greatly from the invigorating sea breeze. Such a sitting was impossible when one realises that even before the hospital was established, the land had already been parcelled out and the waterfront reserved exclusively for commercialism and administration. This anomaly in the hospital's location, is accentuated by the fact that the Medical Officer's residence is on the coast by the district administrative offices.

(e) Religion: The five churches in Bonthe generally occupy a narrow belt between Victoria Road and Palm Street (Fig. 12.8). Generally, most members of a particular denomination are found within easy walking distance of the church.

Consequently, there are more United Brethren members in the south, and more Catholics and Anglicans in the north. An application of Bunge's theory of "Competitive Market Areas"<sup>15</sup> to this situation makes it rational. The first church, belonging to the Church Missionary Society (C.M.S.), established north of Heddle swamp in the former settlement of Bonthe, was centrally placed in order to serve the whole region where the bulk of the christian population were either Anglicans or Methodists. This church may not have been built south of Heddle Swamp, in Yandehun, because that area was essentially associated with the Mende Mission of the American Missionary Association. When finally, a Methodist church was built, it was located in the settlement of Bonthe and close to the older C.M.S. church. This location was rational for the two churches had to cater for the same hinterland (Fig. 12.8). Generally, when a second unit of the same activity, for the same hinterland is instituted, it will be located in the centre with the first<sup>16</sup>. Locationally, the former church had to be south of the latter because of the christian cemetery to the north. The Catholic Church, the latest addition, was built on the site of the christian cemetery so that it could also serve the semi-sophisticated Creole society. For

"it is necessary for the third  
unit (of the same activity)  
also to locate in the centre" 16

of a potential market area. Although these three churches are not in a straight line, as in Bunge's diagram (Fig. 12.8),

distances between them are practically equal. Broadly, however, there is a close relation between the distribution of churches in Bonthe and Bunge's theory.

The distribution of mosques does not lend itself to detail analysis since they are built on tribal lines - hence a Mende Mosque and a Temne one. But because of the absence of tribal quarters, there is no observed correlation between the distributions of mosques and tribal people in Bonthe.

(f) Education: Except in the case of the secondary school, education is generally in the hands of the missions whose primary aim is to produce educated christian citizens. As in the case of most related activities, christian schools and churches in Bonthe are spatially contiguous.

The only secondary school in Bonthe is situated outside the town along Bembe Road. This area is quiet and future expansion is fairly easy.

(g) Empty Spaces: The grid-iron plan meant that plots were laid out even before the houses. Consequently, people or corporate bodies - like the E.U.B. Mission - bought lots which they never utilized for building. Hence empty spaces in the townscape. These are used for horticulture and aboriculture with cucumber, pepper, bread fruit, coco-nut, and citrus fruit grown mainly for the local market. The empty swampy areas, on the other hand, are practically unused and have become favourable breeding grounds for mosquitoes.

Bonthe is one of the few towns in Sierra Leone where some cemeteries have been reclaimed for building purposes. The Catholic Mission compound in the north for example was previously the christian cemetery. But cemeteries, still form part of the townscape.

### 3. Demographic and Occupational Analysis

The population of Bonthe has been subjected to many vicissitudes reflecting the changing economic fortunes of the town (Table 12.3). Decline in the total population between

TABLE 12.3

<u>POPULATION GROWTH, BONTHE</u>	
<u>Year</u>	<u>Population</u>
1853	400 (estimated)
1927	5,400 "
1937	4,896 "
1946	7,554 "
1963	6,230 (census)

1927 and 1937 was followed by subsequent increase in the 1938-46 phase, then by another period of decline between 1947 and 1963. In other words, between 1927 and 37, the compound annual rate of decrease of the population was 0.22; in the 1938-46 period this decline was replaced by a compound annual increase of 3.6% then there was a decline at the rate of 1.3% per annum between 1947 and 1963. The first decline reflected the growing importance of Bo and Freetown and the gradual silting-up of the town's approaches. The 1938-46 revival was mainly due to wartime emergencies for Bonthe was sometimes used as an alternate port to Freetown. Decline in

the post-1946 era mirrors the rationalization of wartime emergencies, and the conscious development of Freetown as the only port. The town has indeed declined. In 1946, for example, it was the third largest town after Freetown and Bo, but in 1963, it has been demoted to twelfth position.

TABLE 12.4

AGE STRUCTURE, BONTHE (1963)

Age Group (in years)	Males	Females	Totals
Under 5	397	432	829
5 - 9	408	433	841
10 - 14	392	372	764
15 - 19	257	216	473
20 - 24	163	264	427
25 - 29	244	308	552
30 - 34	228	262	490
35 - 39	220	199	419
40 - 44	240	169	409
45 - 49	192	121	313
50 - 54	113	80	193
55 - 59	79	75	154
60 - 64	62	66	128
Over 64	120	118	238
<b>Totals:</b>	<b>3,115</b>	<b>3,115</b>	<b>6,230</b>

(Source: The 1963 Census).

Bonthe is the only town in the country with a balanced sex ratio. Detailed analysis of the age structure (Table 12.4) reveals that 38.3% of the population are under 15 years of age, whereas 6.6% are above 64 years and 55.1% are in the active age group. There is an excess of males between the ages of 10 and 20 years and again between 35 and 60. Female excess is the case between the 21 and 35 years.

Because of its historical evolution and the resultant functional complexity, the population of the town is very heterogenous, although more than 50% of the population speak Mende, and Krio is the lingua franca.

The population of Bonthe is very unstable, and characterised by seasonal fluctuations. It increases considerably at Christmas and during the period immediately before the rains (March and early April) when people come from the interior of Sierra Leone to buy fish. At other times, the population is low and really reaches its nadir at the beginning of the rains (later May and June) when people temporarily migrate to Gbap to find jobs on the rice farms.

Of a total population of about 6,230 in 1963, 11.4% were children under the age of five years; 21.6% are attending school. That is, 44.4% of the population between 5 - 29 years were going to school. Only 23.2% of Bonthe's population was employed. This employed percentage was low compared to those of some mining towns (Foindu, 74.7%, Fomaia, 65.8%, Gondama, 60.6%), and some administrative centres (Freetown, 30.7%, Kenema 29.0%, Makeni 23.7%). It was, however, higher than that of Bo (21.4%), Magburaka (22.6), and Matru (19.1%).

TABLE 12.5

<u>OCCUPATIONAL STRUCTURE, BONTHE (1963)</u>	
<u>Occupational Group</u>	<u>Population</u>
Agriculture, & Fishing	245
Mining & Quarrying	3
Manufacturing	193
Construction	48
Electricity & Water	38
Commerce	508
Transport, Storage, Comm.	189
Services	296
<b>Total</b>	<b>1,520</b>

(Source: The 1963 Census)

Occupational breakdowns of the employed population in Bonthe show that in 1963, 33.4% worked in commerce. This percentage was only lower than those of Blama (38.1), Koindu (39.2), and Waterloo (36.7). Closely related to commerce was services which employed about 19.4% of the town's employed population. This group included administrators, teachers, medical officers and missionaries. Bonthe being a pre-industrial town was reflected in the fact that 16.1% of its employed population were directly engaged in either fishing or agriculture. Other employment activities were electricity and water (2.5%), manufacturing of miscellaneous food products (12.7%), and construction (3.2%). The large number of people employed in transport and storage (12.4%) was a direct reflection of Bonthe's importance as an over night stopping place for traders from the interior to the fishing villages of Sherbro Island. Furthermore, this town had an internal and external telephone system and an

active Post Office. In addition, Bonthe was also an important storage centre for rice produced in the mechanical rice cultivation area of the Kittam estuary.

#### 4. Urban Problems

Bonthe has no water shortage, but the water is impure. It is muddy and in some cases full of impurities. In addition, it may become polluted when small creatures such as toads, cockroaches and rats die in the wells. Consequently, dysentery is rife, and there is presently no way of completely eradicating it until the problem of good water supply is solved. Even the storage tanks are usually infested by annelida especially earth-worms. This water problem may be solved after the introduction of stand pipes as recommended in the Five Year Development Plan.

The general toilet conditions in the town leave much to be desired. For majority of the toilets are unhealthy, filthy and poorly roofed. When pipe water is introduced, it may be possible for people to use flush and 'hole' toilets both of which are healthier.

Though Bonthe is without slums, shanties found on the outskirts of the town are poorly ventilated and badly lit. They are stuffy and aid the fast spreading of airborne diseases like common cold, cough, and chicken pox. The houses in this category include many mud buildings where people and domesticated animals, notably chickens, dogs, cats and even sheep, sleep in the same house.

As Bonthe is effectively an importer of essential needs, effective and reliable communication links with the mainland may be very useful. But most of the launches are mismanaged and badly in need of repairs. Within the town, mobility is greatly reduced because there is no public transport.

When the above problems are looked at on the background of the general social and economic decline of the area, the moribund nature of the town becomes very evident. Certainly, any plan for the revitalization and remodelling of the town should aim at solving both the economic decline and the concomitant problems of the town. There are plans for developing industries such as brush-making in Bonthe, and large acreages are being cleared for plantations, but what may be the effects of these on Bonthe, it is yet too early to say.

Bonthe has really declined, it has lost certain functions like the District Council headquarters to Matru without any corresponding gains. In the dark gloomy future that lies ahead, a small beam of hope seems to stem from the plantations which the Sierra Leone Produce Marketing Board is developing on the island. Realising that employment facilities in any area result in migrations to that section of the country, plantations, therefore, may not solve the town's problems. As the floating population is growing, there is bound to be a

corresponding increase in social vices, an accentuation of the town's existing problems and a further strain on the limited infrastructure. A brush industry is planned for Bonthe but considering the size of the available market, and the number of people who will be directly employed in the industry, there may not be a revolutionary change in the town's prosperity. Is Bonthe then the victim of historical circumstances and geographical disadvantages? Or is the island's guardian spirit, Kasilla, annoyed with the inhabitants? Kasilla may be appeased by the killing of a lamb and a dionysian party, but the economic decline and the atmosphere of decay will only be remedied if Bonthe and its environs are developed. Then and only then will Bonthe become again the bustling, lively town of the south-west.

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## CHAPTER 13

KOIDU - A MINING TOWN

The introduction of new forces of urbanization usually result in a reorganization of the pre-existing settlement network. This is true both in terms of population size and functional importance. Actually, the more potent the new stimulus, the more radical the changes. The influence of effervescent agents on urbanization is clearly evident in east-north-eastern Sierra Leone. That is, present day Konoland; a zone including the Kono District and sections of the Kenema, Kailahun and the Koinadugu Districts. Similar to other frontier areas, this section of the country was, for a long time, politically unstable. For its southern borders were constantly nibbled-at by the Kissi, and warriors such as Nyahagua (of Panguma), and Kailondo (of Kailahun), never lost an opportunity of extending their domains northwards into Kono territory. In fact raids into Konoland were still carried out after the 1896 proclamation of the Protectorate. The last major one (the 1905 Kissi War), was on the 20th of December 1904 when

"a large party of Kissis ..... captured the town of Bakidura ..... Then having destroyed four stacks of rice, they proceeded to the small towns (in Kono) of Sonfondu, Yengema, Rafardu, Henengama which they burnt".

Sefadu and other large settlements in the area were occupied around the same time by the Kissi.

With the final crushing of the Kissi in 1905, the last threat of War in the area was removed. But Konoland was still a remote region infected by sleeping sickness and malaria. The inhabitants were mainly subsistence peasant farmers, who were not fully integrated into the Western monetary economy, nor were they part of the "Kissi Penny" trading zone. Roads were absent, and centres were only linked together by tracks. The settlement pattern which prevailed at that time reflected the influence of agriculture, for certain places emerged as central places. In 1910, for example, Kayima had 114 houses. Other large centres included Jaiama Nimi Koro (255 houses), Kangama (131 houses), and Jaiama Nimi Yema (180 houses). Where possible, settlements were located at easily defensive sites ( a gap, a mountain top or a valley). The whole area was forested and usually hilly. During the Kissi war, the government forces found it difficult to attack Sefadu because of the

"conformation of the ground and the dense bush and high trees which practically hid the town from view".<sup>2</sup>

Since 1930, when diamond was first discovered in Konoland, the settlement pattern based on agriculture and defence has been replaced by a new one. For increased diamond mining resulted in the development and mercurial growth of new centres,

but in the decay of some others. Towns whose growth has been directly influenced by diamond mining include Yengema and Koidu. The growth of Yengema was the result of the mining activities of the Sierra Leone Selection Trust (S.L.S.T.) which took over

"during 1934, the activities of the Consolidated African Selection Trust Limited with regard to diamond mining . . . in the Kono District".<sup>3</sup>

Even as early as 1935, this Company employed over 1,000 people who stayed in Company houses at Yengema. Koidu, a few miles from Yengema, was essentially the creation of nodality and (from 1952) illicit (later licenced) alluvial diamond mining. For, about twenty five years ago, it was very inconspicuous and insignificant. Really, Koidu was an agricultural village of Yaradu, the then headquarters of Gbense chiefdom. But Koidu has now become an important commercial retail centre, and the sixth largest town in the country. It has completely dwarfed Yengema, the Jaiamas and Tombudu, and Sefadu is now essentially its suburb. Previously called Koidu Kpoyo, to differentiate it from other Koidus in area, the settlement's name was shortened to Koidu for as the town grew, because of mining, it became less necessary to differentiate it from other Koidus. No one could now ask 'which Koidu'? When one speaks of Koidu. This sudden change in the town's importance is a direct result of diamond mining, especially native diamond mining, which has

attracted people, and also led to an increase in trade.

Koidu is the only town where commercial firms are opening new shops. There is no better index of the town's increasing importance than this.

The present town of Koidu spreads out between the 1,200 feet and the 1,300 feet contours. In the north, east and south, where higher land is usually found, only a few houses, notably Government buildings have been erected. These mountainous areas now inhibiting the town's spread in certain directions previously offered defensive advantages to a small agricultural village. Because of the limiting influence of highland, the growth of the town is now concentrated in the valleys which have become natural route-ways to Koidu (Fig.13.1). The convergence of valleys in the area has been reflected in the nodal status of the town. Now it is joined by motor roads to Kainkordu (in the east), Kenema (in the south), Yaradu (in the north) and Yengema (in the west).

The actual site of Koidu is characterised by dry land alternating with swamps and rivers. Actually the town is divided into three sections by rivers. But Koidu is greatly in need of good and lasting supply of water, as these rivers have become muddy and have been greatly polluted because of diamond mining. This activity has also resulted in the production of a sterile, rugged and uncanny landscape around the town, for no effort is made to replace the soil after mining. This removal of the humus cover coupled with the rainfall regime of the

region may have militated against the growth of vegetation in the area as a whole.

Mining has had other influences on Koidu: urban transportation is expensive and in the contiguous villages, there is an evident decline of agriculture.

Besides large settlements like Koidu, Yengema and Peyima, the density of rural settlement is low, and villages are, in the main, small and few. This is a reflection of the fact that the larger and more prosperous settlements in this area are growing at the expense of the smaller ones. The trend, therefore, is towards a simplification of the settlement pattern by the development of few large nucleated centres.

The physical conditions of the site influenced by historical circumstances have continuously affected the growth of Koidu from a small agricultural settlement to a booming mining and retailing commercial centre.

#### 1. Historical and Demographic Growth

Koidu is one of the few settlements whose historical core shifted more than once; and one of the few examples of large towns that have developed from a single nucleus by a process of accretion. But like most towns in the country, it is a relatively 'young' settlement - the children of the original founders are still alive.

Koidu, previously called Koidu Kpoyo, was founded in the early 1890's by Pa Bombogbori, the brother-in-law of Kaimakainde I of Yaradu. Consequent upon the wedding of his elder sister,

Bombogbori transferred from their village, Kpotoe, in Tankoro chiefdom, to Yaradu. And according to custom, his brother-in-law gave him a few acres of land on the main Panguma-Yaradu road. For a few years, Bombogbori stayed in Yaradu with his sister but walked daily to his farm. On getting married, he decided to build a few huts on his farm for his family. Here the desire to escape from a domineering sister and stay close to the farm was a motivating factor in the founding of this new settlement, which Bombogbori called Koidu Kpoyo. That village was the first nucleus of present day Koidu (Fig. 13.2).

After the formation of the Protectorate and the creation of districts, with Panguma the headquarters of the Panguma District, District Commissioner<sup>s</sup> had to travel all over their districts, either in hammocks or on foot, to coordinate administration and explain to the chiefs the new administrative machinery. Whenever the Commissioner reached a village, it was accepted that the villagers were to provide carriers to take his load to the next village. As Bombogbori's hamlet was on the main Panguma-Yaradu route, he usually transported the D.C.'s luggage to Yaradu. To avoid transporting loads, Bombogbori decided to move his settlement to another site which will be off the main route. Thus somewhere between 1900 and 1905 (the Kissi War), he founded a new village near the site of the present District Council offices (Fig. 13.2).

The post-1905 history of Koidu may be divided into four broad groups: the early colonial period (1906-1930), the diamond era (1930-1950), the illicit mining epoch (1950-1956), and the modern phase (post 1956).

During the early colonial phase, certain developments greatly influenced the growth of Koidu. The first of these was the result of the Kissi War. The speed and efficiency with which the colonial power crushed the war, especially the recapture of Sefadu, impressed Bombogbori. His profound confidence in the gun of the British made him feel that staying close to Sefadu may be an advantage. This conviction was strengthened by the 1928 administrative modifications whereby Sefadu became the headquarters of the Kono District, and a Court Messenger Barrack<sup>s</sup> was built on the present site of the Volkswagen garage. In 1929, Sefadu became linked to Segbwema by a motor road, and in the following year, there were motor roads joining Sefadu to Jaiama Nimi Yema, Jagbwema and Kayima. Sefadu became both an administrative and an important market town. Trade between it and centres like Panguma, Kenema and Segbwema increased considerably.

The above developments induced the inhabitants of Koidu to transfer to the main Sefadu-Panguma road where they founded a new Koidu. The old settlement was allowed to decay except for certain "society houses". At that time the population of this settlement grew as a result of trade and because relations

and concubines of the court messengers had to stay at Koidu. The first historical mention about Koidu was in 1933, when it was described as a

"new town built on the Gandorhun-Sefadu road".<sup>4</sup>

Koidu, therefore, was fairly well established by the beginning of the diamond mining phase.

The 1930 discovery of diamonds in Kono was the beginning of increased activity in the settlement. But even before mining was well established, the Evangelical United Brethren (E.U.B.) Mission transferred from Yaradu to Koidu. And in the same year (1931), that Mission built a school in Koidu on the present site of the Bank of West Africa. This school was intended to serve both Sefadu and Koidu. New activities had to be located at Koidu because of the restricted favourable site conditions at Sefadu. For the same reason, the S.L.S.T. Numbers 2 and 4 Labour Lines were built just off Koidu, on the Segbwema Road, in 1935-36. Considering the fact that in 1936 the Company employed 1,500 people, it is probable that some of them stayed at Koidu not Yengema. Hence the settlement's population grew; with it, was increased trade, and morphological expansion. Koidu was then an important nodal centre. Administration was added to the settlement's functional table when in 1936, the newly crowned Kaimakainde II of Yaradu transferred his chiefdom headquarters to Koidu. At the same time, because of congestion, the Court Messenger Barracks were moved to the

other side of the hills - on the present site of the junior service quarters.

By 1940, therefore, Koidu was a fairly large village and although the impact of diamond mining was still small, there were already some illicit miners in the town. But the road built by the company in 1939 linking Sefadu, Yengema, Koidu and Panguma, had started playing an important role in influencing the direction of growth of the main residential complexes. And within the next ten years, expansion was mainly based on roads: along Yaradu Road the town engulfed the first settlement of Koidu Kpoyo, whilst on Kenema Road ribbon development was gradually extending as far as the S.L.S.T. camps which were, by the end of 1950, structurally part of Koidu (Fig. 13.2).

The year (1950) was selected as the date separating the two mining eras for two main reasons. Firstly, up to that date, the factors responsible for the growth of Koidu were not radically different from those for many other towns such as Makeni, Magburaka and Yonibana. But the phenomenal growth of the town after 1950 is clearly evident. And secondly, because 1st January 1950 was the legal dateline distinguishing strangers and non-strangers in Kono. The former were those who came to the area after that date; and the latter included people resident in the Protected Area before January the first, 1950.

"In other words the non-Konos who had settled earlier in the district were to be treated just as favourably as the Konos .... (This) date of January 1950 seems to have satisfied everybody : it made a fair distinction between those non-Konos who came for honest employment and those who came for illicit diamond digging".<sup>5</sup>

This Diamond Industry Protection Ordinance did not prevent illicit mining or the infringement of the rights of the S.L.S.T. for illicit mining increased considerably. And Koidu, the centre of illicit mining grew very fast, for although actual mining was not important in the vicinity of the town, it served as a commercial, educational and recreational place for the miners in the nearby villages. Expansions during this phase are evident along Kainkordu Road (east of lake Gbassan), and Yengema Road. The development of the Dumper Line and the Hill Station residential areas also reflect the building boom of that time (Figs. 13.2, 13.3).

Another importance of the 1950-56 period was that it was during those five years that Koidu started changing from a blown-up village to an urban centre with certain essential services. The Tonkoro Police Station and Barracks were opened in 1954, and the hospital was under construction in 1956, but finally opened in 1957. Since 1956, new activities have been introduced into Koidu : the power station was in operation in 1960, and the S.L.S.T.-built Community Centre was opened in 1961.

After the expulsion of foreigners from the diamond areas in 1956 - it was estimated that 45,000 native foreigners left Sierra Leone during the three weeks of the ultimatum<sup>6</sup> - Koidu's growth rate must have declined, but the town had gained sufficient economic push for it to continue flourishing. Growth has been mainly in the form of interstitial infilling and houses have started creeping-up the mountain slopes. But one hazard to the town's expansion, which has become more evident lately, is the distribution of concession areas. Actually the avoidance of such areas may possibly explain why the town has not developed in some directions.

In any way measurable the town has grown very fast. Morphologically, it has spread out like a bush fire (Fig.13.2); its population has also increased considerably from 96 in 1927 to 11,706 in 1963. Actually, of all the towns in the country, Koidu has grown fastest for between 1927 and 1963, its population increased by 11,193%, and that of Bo by 605.0%.

## 2. Land Use Analysis

In common with other large towns, one may delimit in Koidu the main areas of commerce, administration, and residence. Recreation, medicine, education and religion are also part of the townscape.

(a) Commerce: In Koidu, the CBD is very distinct, but isolated all-purpose shops are generally absent. Thus beside the CBD, the only other important commercial area in the town is the daily market.

The star-like CBD is central in location, and includes parts of Kainkordu road (in the west), Yaradu road (in the north), and Yengema road (in the west) (Fig. 13.3). It is bounded on practically all sides by rivers and swamps; the influence of breaks of slope are not very evident. The artificial lake Gbassan has created a hollow in the extension of the commercial core along Kainkordu road (Fig. 8.3). Elsewhere, the continuity of the CBD is sometimes interrupted by medical buildings (as along Sembahun road), by a filling station (along Yengema road), and by religious establishments (on Kainkordu road). Storey buildings generally absent in Koidu are concentrated in this commercial hub. No visitor will fail to find this contrast in buildings between the commercial area and the rest of the town.

Unlike practically all other towns in Sierra Leone, commercial firms are setting up shops; U.A.C. for example was opened in 1963. Since these firms are later additions to the commercial scene, they are peripheral in location. (Compare this to the central locations in Makeni). Because of this recency, it is still very premature to estimate their impact on the commercial activities of the town. The Lebanese, Indian and African retailers therefore, are still the most important in the commercial activities of the CBD. And as in other towns, the Lebanese are the most dominant especially along the main streets of the shopping centre. The number of

Lebanese shops decreases towards the fringes of the CBD. In these marginal areas, African traders who give only a section of their frontage to commerce, are predominant. Some of these African shops should never have been opened since they are gradually being stifled out of business by the more developed retail shops around the centre of the CBD. Actually, the presence of these decaying shops possibly shows that Koidu's CBD never passed through the evolutionary stages common to other CBD's (See Chapter 8). It is however, evident that these shops will not survive once diamond mining ceases - they were the creation of the diamond boom and will be inevitably wiped out of the commercial scene.

The presence of two banks (the Barclays, and the Bank of West Africa) within the commercial core, is also an indication of the healthy condition of commerce in the town. The Bank of West Africa is along Yengema road, just opposite the commercial firms, whereas Barclays is in Sembehun section facing Chanrai, an Indian firm. A hospital, owned by Doctor Lahai Taylor found within the CBD, is also sited close to Chanrai.

The retailers in Koidu not only sell practically all the types of goods sold by their counterparts in other towns, but they also sell goods which are not found in other urban centres. Cotton goods inscribed with the Prime Minister's picture, for example, were first on sale in Koidu, and retailers in other towns in the country had to buy them from there.

Two explanations are possible for this: either the material was sent direct to Koidu by the manufacturers, or traders from Koidu came to Freetown and bought all the bales. Whichever explanation is correct, however, shows how versatile and reliable the Koidu market is.

The large number of petty traders in the CBD, especially around the market and the Opera Cinema is also an index of the brisk nature of trade in the town. Outside the CBD, other areas of concentration are the Shell Petrol station (whose compound is used as a lorry park), near the commercial firms, and by the Mobil filling station close to the Nos. 2 and 4 S.L.S.T. Labour Camps.

Like Makeni and Magburaka, the daily market in Koidu is peripheral to the CBD. It is sandwiched between the retail shops along Yaradu road and the artificial lake Gbassan. This market consists of two long buildings, one of which is used by fish sellers, and the other by clothes and shoe traders. At the back of these buildings, are over 100 tables with vegetables, greens, and other minor consumer goods. Fringing the market on both sides are rows of tailors (Fig. 8.10). This is very curious, for in most other towns tailors are not found so close to the market. Possible explanations of this include the fact that Koidu, in most respects, is a special type of town. Actually, these tailors sew the materials bought by customers from the market (a whole building being devoted to

the selling of clothes and related goods). Elsewhere, tailors are few, but wherever found, they are always associated with shops - an association noted in other towns.

The CBD of Koidu is very lively, and seems to be not only the centre of commerce, but also the main recreational area; for the famous Opera night club is found within it. There is activity in this area throughout the day and during late afternoons, when the commercial cores of most other towns are dead, this area is full of life. The people are active and seem to be about something. Certainly the fast movement of vehicles in the CBD is an epitome of its activities and liveliness.

(b) Administration: The administrative machinery in Koidu is spatially and functionally divided into three types: the district administration, the district council section and the native administration.

Although Koidu has expanded to practically engulf Sefadu, the central government administrative machinery has persisted in Sefadu though it has been moved from Yengema road, now the premises of the Volkswagen garage, to its present site. In this new area, the houses of the administrative officers and their clerks are close to their offices. Thus, as in other large towns, there is a considerable reduction in journeying to work. This peripheral location is no disadvantage since the offices are geared towards the administration of the whole district.

The district council offices, under the Presidentship of the Rev. Paul Dumbar, are found near Yaradu road just off the main built-up area. This site is easily accessible from all sections of the town, and future expansion is feasible. Obviously, the district council is a machinery of the central district administration, since it allocates funds to the different chiefdoms. Its members are elected from all the chiefdoms in the district by universal adult suffrage.

The chiefdom administration was transferred from Yaradu to Koidu after the latter became more important and larger than the former. Previously the Native Administrative (N.A.) buildings were found in a congested place along Kainkordu road, now they are in New Site, an area detached from the noise of the commercial zone.

(c) Residence: The amorphous residential complex of Koidu is generally divided into quarters (Fig. 13.3) by physical geographical factors. The Yawei stream and its tributary, for example, divide the town into three sections. Similarly, in the north, the Gbassan has created a gap in the residential area of Kainkordu road, and halted the eastward growth of buildings along Yaradu road. Besides the influence of waterbodies, relief has also affected the resultant residential shape of Koidu. Certainly, the empty area in the north, between Sefadu and Yaradu Road, reflects the steep nature of the land which militates against building fixation. In the same way,

the western limit to the ribbon development along Yengema road is set by a marked break of slope. Generally, except for a few isolated houses, the highlands are bare, and cultivation is minimal.

But besides purely physical factors, human factors also help explain the residential shape of the town. Regulations against the building on S.I.S.T. protected mining areas, has meant that expansion in some directions was halted and even permanently stopped. This helps explain why Kisey (south-west of Koidu) has not been engulfed by Koidu. In fact the absence of private buildings in the south-east is another result of this factor.

Though it is impracticable to divide residential quarters on the basis of building types and social positions of residents, one might distinguish certain residential areas with local nomenclature: Yaradu Road section, New Site residential area, Hill Station, Kaimakainde residential quarter, Dumper Line area, New Sembehun, and Kainkordu Road section (Fig. 13.3). These zones have been delimited to make locations within the townscape easy.

On another level, however, we may distinguish between private residential quarters, government residential areas, and mining residential regions. Government quarters are concentrated in Sefadu, where the administrators and their clerks live. They are also found along Kenema Road near the Tankoro Police

station (for the Police), and in the east close to the government hospital. One interesting feature which emerges is the association between the government residences and related government offices. In this, we see a conscious move to reduce journey to work, a factor which is important in a diamond mining town with its concomitant social and political problems.

The mining residences are found in the south-east. There, the Labour Line along Kenema Road are distinct from the houses of the senior S.L.S.T staff. Here we vaguely see a division based on houses types, on status and on income.

In the private residential areas, we may differentiate between the 'old' residential areas (Kainkordu Road, New Sembehun and Tankoro), the developing residential quarters (Yaradu Road, and Hill Station,) and the newly opened residential sections (Dumper Line, New Site, Kaimakainde town and Sagui town).

Koidu seems to be one of the few towns with three main residential groups. Such divisions are not evident in the case of Lunsar another mining town. Differences between these two towns is possibly because iron mining resulted in the creation of a new settlement (Marampa) whereas diamond mining in Koidu led to the development of residential quarters which have eventually become part of the urban landscape.

Within the government and mining residential quarters uniformity of building types is evident. In the Nos. 2 and 4 Labour Lines, for example, a four-roomed rectangular heaped roof building for two families is the rule. In the same way,

the buildings of the senior clerks of the Sefadu quarters show such striking similarities. Here the houses are so similar that people, on many occasions, enter the wrong ones. But in the private residential areas where the shape, plan and orientation of buildings reflect personal whims and caprices, buildings are very dissimilar.

(d) Medicine: Koidu is the only town, besides Freetown and Bo, with two hospitals, a government and a private one. The government hospital is situated in the eastern periphery near the new residential quarters of New Site, and Hill Station. This area is relatively quiet, being off the main road, and future expansion is possible - something difficult for the hospital in Makeni. As the hospital is not adequate to meet the demands of the town and its environs, a private one owned by Dr. Lahai Taylor was built close to the Indian shop of Chanrai in 1963. This latter hospital is more easily accessible to all sections of the town than the former. But in Koidu, geographical positioning within townscape is less important partly because of the relatively well-developed urban transport and partly because the demand is so great that selectivity between two similar activities is very reduced.

The presence of a fairly large mining hospital in Yengema, shows that medical facilities are more diffused in Kono District than in Koinadugu. Thus the attraction of Koidu as a medical centre is less than that of Kabala. Actually, observations show

that the bulk of the patients patronizing these two hospitals are residents of Koidu.

(e) Education: In spite of the marked increase in urban functions, Koidu is one of the few large towns without any secondary school possibly because the one in Jaiama (Nimi Koro) caters for the whole District. The two elementary schools owned by the E.U.B. and Catholic missions are found in the same section (around Kainkordu road), and close to each other. But the Catholic school, found in the New Site area is better placed than the E.U.B. one since its surrounding is relatively quieter. Generally, the fringing locations of these schools is disadvantageous to children in Sefadu and Tankoro (Fig. 8.3). To go daily to school by taxi is also very expensive. If these schools had boarding home facilities, this problem may be considerably reduced, but it is increasing especially with the fast moving traffic and the growing number of vehicles on the road.

(f) Religion: As in most other towns in the country, there is a close association between mission schools and churches. Here the churches are either inconspicuous buildings (as in the case of the E.U.B.) or the school is used on Sundays as a church. Churches are not, therefore, important features of land use in the town. In contrast, mosques are important in Koidu's townscape. At present there is one mosque (around Kainkordu road), and another one (in New Sembehun) is under construction. Because of this, only the former one has any impact on the town. This

which is easily accessible from these towns. One may feel that with the large number of vehicles in Koidu, there should have been more garages, but this is compensated by the fact that many people service their vehicles in Freetown.

(h) Recreation: The new Community Centre used variously as a library, a dancing hall and a cinema, is found in the New Site residential section, where land is available for other recreational facilities such as a football ground. The absence of buildings around it, is an advantage since the noise (either during dances or during a football match) will not disturb many people. Another recreational centre in Koidu is the Opera which is within the CBD and opposite the daily market. The Opera building is impressive and is a great attraction to visitors, but its location cannot be justified under any circumstances. A peripheral position, would have reduced traffic congestion, parking problems and noise in the CBD. Locationally, a smaller cinema found just off the Yengema road has a more ideal position, for it is detached from the hurly-burly of the CBD.

One thing which is evident throughout this analysis of land use (except in the case of cinemas), is the duplication of similar activities (filling stations, hospitals, commerce, and religion) north and south of the Yawei stream. This is possibly a reflection of the increasing morphological expansion of the southern section of Koidu, and the potentialities of its population for patronizing urban facilities. Perhaps this

functional duplication is on chiefdom basis - Gbense north of the Yawei and Tankoro south of it.

### 3. Demographic and Occupational Analysis

In all Sierra Leone towns, the ethnic composition is very diverse, but this diversity is greater in some than in others (see Chapter 3). In Koidu, for example, it is so diversified that we could safely say that the total number of non-Kono is greater than that of Kono. "Sefadu, (actually Koidu) had become a strangers' town".<sup>9</sup> This is directly the influence of diamond mining with its pull on people from all over the country.

The effect of mining on the population is also evident in the excess of males to females, a peculiarity that is largely true in the diamond mining areas of the middle Sewa River valley. In Koidu there are 878 females to every 1,000 males, and in Sefadu there are 638 to 1,000 males.

Even in the age structure (Table 13.1) the effect of mining is evident from the marked excess of males over females in the adult period. Of the total of 4,221 people under 14 years of age, 2,036 are males, and 2,845 are females. Here females outnumber males. But between the ages of 14 and 64, there are 4,119 males to only 2,581 females; and out of a total of 125 people above 65 years, 78 are males. In other words, between 15 and 64 years of age, 63% of the population are males; here the influence of diamond mining is evident.

TABLE 13.1

## AGE STRUCTURE, KOIDU (1963)

Age Groups (in years)	Males	Females	Totals
Under 5	1,050	1,030	2,080
5 - 9	532	728	1,260
10 - 14	454	427	881
15 - 19	620	694	1,314
20 - 24	658	761	1,419
25 - 29	887	726	1,613
30 - 34	630	397	1,027
35 - 39	566	271	837
40 - 44	298	157	455
45 - 49	240	82	322
50 - 54	105	70	175
55 - 59	61	32	93
60 - 64	54	51	105
Over 64	78	47	125
Totals	6,233	5,473	11,706

(Source : The 1963 Census)

The dependency ratio of 55.6 shows that for every one person in the working age group, there is approximately one out of it.

This ratio is low when compared to the 81.8 for Kabala.

TABLE 13.2

## OCCUPATIONAL STRUCTURE, KOIDU (1963)

Occupational Group	No. Employed
Agriculture, & Forestry	674
Electricity & Water	72
Mining & Quarrying	462
Manufacturing	811
Construction	202
Commerce	1,349
Transport, Storage, & Comm.	367
Services	519
Total	4,455

Source : The 1963 Census

Of the total population of 11,706, only 4,455 were employed in 1963. In other words, 31.2% of the town's population were engaged in either of the eight occupational groups (Table 13.2). More rightly, 44.2% of the population above nine years of age were gainfully employed. Occupational analysis confirmed the idea that as an urban centre expands commerce becomes increasingly more important. Justification of this, was the fact that 30.2% of the employed population were engaged in commerce. Closely related to this occupational group, was manufacturing - the preparation of miscellaneous food products, the bottling of aerated carbonated water and soft drinks, the weaving of native cloth and some amount of native dyeing (gara). This group employed 18.1% of the working population. Since Koidu had schools, hospitals, electricity and many police constables, it was not surprising that 11.6% of the gainfully employed worked in services. What was surprising, however, was the relatively low percentage (10.3) engaged in mining. Surely more than 462 people in Koidu were associated with mining either as diggers, S.L.S.T. employees or dealers. Perhaps the 10.3% included only the diggers and Company employees. The dealers were probably regarded as working in commerce. In addition to this, misconceptions about the motives of the census may have made people register either in other occupational groups, or as unemployed. The 15.1% engaged in agriculture and forestry shows that even a mining town like Koidu has not yet completely

shed ~~off~~ its rural characteristics. This becomes clearer when it is realised that agriculture and forestry were the third largest occupational group after commerce and manufacturing. Other occupational groups included electricity and water (1.6%), construction (4.5%) and transport, storage and communications (8.2%). Fifteen people were engaged in activities not adequately described. Koidu is essentially a town where commerce and manufacturing are the most important functions for, together, they accounted for 48.3% of the employed population (Table 1.7). Of secondary importance were mining and transport, storage and communications. But actually mining influenced the whole occupational structure of the town.

#### 4. Urban Problems

Although Koidu is an important urban centre, it is not without problems. The water supply is not adequate and the rivers flowing through the town are heavily polluted by diamond mining. Consequently many families especially those in Sefadu boil it before drinking. Though some of the houses of the senior administrative officers have pipe-borne water supplies, the water is not purified by any means. The construction of reservoirs in the north, along Yaradu road, and the digging of the streets to lay pipes are first moves in trying to solve this problem.

The electricity supply is already inadequate to meet the town's demands. There are, therefore, great fluctuations in volume, and at peak periods sections of the town are without power. Here the only solution would be, as has been done in Bo,

the construction of a larger and more efficient power station. But as with other projects in most developing countries, the question of funds is always an important impediment.

In Koidu, traffic on the streets is increasing, and most of the drivers are reckless. Traffic laws are completely disregarded. The influence of mining? The heavy traffic, coupled with the unmetalled conditions of roads in the town, has led to a very fast depreciation of road surfaces. Actually, the streets are so bad that even the best car will not last long without constant repairs. The hazards on these roads have been considerably increased in recent months by the mounds of earth deposited on the roadside, and the open ditches designed to hold the water pipes. Now, large parts of practically all roads in the town are unusable. A well tarred road may help solve this problem, and many people in the town feel that a Town Council is the solution. Presently, Koidu is administered by two chiefdoms (Gbense and Tankoro). The idea of a Town Council has been put to the Central Government and it is under serious consideration. Let us hope that when it is created, it will really solve these problems, rather than itself becoming a problem.

Koidu has experienced one of the most phenomenal growths in the whole country. This was, in the main, the result of diamond mining which led to increased commercialism in the town. But as a mushroom mining town, it has not had time to evolve. Her CBD is bound to shrink and take on a more natural and realistic appearance, and the town's amorphous nature may become more rational. Government offices are few, and the town has

many problems. The imprint of mining is not only evident in the townscape, but also in the demographic characteristics of the town. Diamonds have indeed made Koidu, but what will happen when these non-renewable resources are exhausted? The town may either become moribund, like ghost towns in Australia or Canada, or may continue on the momentum gained during the boom. Koidu, as a town, will definitely survive since it has now become an important trading centre, but the surrounding mining settlements will inevitably decay. Perhaps when the shorter new motor road to Koidu via Masingbi and Jaiama (Nimi Yema) is completed early next year (1967), Koidu's status as a commercial centre will increase as its mining importance decreases.

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6. Ibid., p.22.
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CHAPTER 14MAKENI - A GROWING TOWN IN TEMNELAND

Makeni is essentially the creation of historical developments in Sierra Leone during this century. For when Falaba, Musaia and Bafodea were large flourishing towns along the main trade routes connecting the Niger watershed to northern coastal Sierra Leone, neither Makeni nor Magburaka were known. In fact there were no such settlements. But in less than eighty years, Makeni has become in all respects the most important town in the Northern Province. Its growth has been closely related to certain developments in this century : the construction of the railway which helped tap the oil palm resources of the area; the decreasing importance of frontier defence; the evolution of a road/rail network. With these developments, Kabala's outlandish position was made obvious whilst Makeni's locational advantages became evident. Thus in 1931, Makeni superseded Makump as the headquarters of the Northern Province.

Before 1896, when the Protectorate was proclaimed, the pattern of settlement in the area consisted of the nucleated village with outlying hamlets. A rational pattern, in terms of the then agricultural system (shifting agriculture and animal husbandary), the orientation of caravan routes, and the distribution of navigable waterways. Most large places at that time, were either along caravan routes (Falaba, Musaia, Samaia,

and Bumban), or on navigable creeks and rivers (Magbile, Benkia, and Makump). In fact one of Cardrew's four main trading routes (1895) passed through Matotoka, Benkia and Magbile :

"From Matotoka, tapping the Kuniki and the Sanda Lokko countries (the latter in the region of Karriyema) thence by road to Benkia on Rokelle River where the produce is loaded in small canoes and transported to Magbilih and thence transhipped in large ones to Freetown".<sup>1</sup>

With the evolution of a rail/road network, and the increasing demand for tropical products in Europe especially oil palm, a new system of central places developed in the north in direct response to these factors. The former central places, in most cases, decayed and one had the development of centres such as Makeni, Magburaka, and Yonibana. But Makeni has emerged as the most prosperous, for in addition to trade in cash crops, the introduction of new activities has made it one of the few towns in the country that have European commercial firms, and the few centres, outside the mining area, that still show marked continuous growth. In about 1927,<sup>2</sup> Makeni's population was estimated at 204, but according to the 1963 census, it is the fourth largest town with a population of 12,304.

Makeni is mainly located on a low plateau about 300 to 400 feet high. Although swamps are part of the site, large streams are not found either within or in the vicinity of the town. But Makeni's site has certain advantages. The presence

of highlands, which often culminate in inselbergs like the Camel and the Wusum, in the north, previously offered protection to settlements like Rogbani and Makama. Furthermore when settlements were small, the clear springs from these hills supplied them with good drinking water.

The alignment of highlands, the distributions of swamps and the canalization of routes in the valleys have all considerably influenced the shape of the town, its directions of growth and its compactness.

#### 1. Historical and Demographic Growth

The present town of Makeni was not in existence before 1890, but in that area were many small villages including Rogbum, Rogbani, Tubum, Mabanta, and Pulu (Fig.14.1). Actually, the other villages were under the jurisdiction of the ruler of Rogbani, the largest settlement in the area. But between this group of settlements and the village of Makama was an empty space which could be used by enemies. Luckily, at that time, one of the tribal authorities of Rogbani had a young brave adventurous son - Keni - who was not happy at Rogbani. He was always interested in warfare and romance. With a desire of making Keni happy, the tribal authorities of Rogbani decided to found a settlement for him on the buffer zone between them and Makama. The actual site of the three-hut village was around the present Independence Square (Fig.14.1). Now the prefix "Ma-" has no meaning in Temne, but previously it was the equivalent of present-day

"ro-" which means "to". Thus "Ma-Keni" came to mean "to Pa Keni's village". Ma-Keni has now become Makeni.

The historical geography of the settlement may be divided into : the traditional period (pre-1915), the railway phase (1915 - 1929), the road era (1930 - 1950), the service epoch (post-1950).

During the traditional period Makeni grew little, and its inhabitants were mainly farmers and cattle rearers. Actually it was a village of Rogbani. The first mention of Makeni in historical records was in 1915 when it was mentioned as one of the villages where trypanosomiasis was rife. The interest of the British was roused and by the end of the year, railway officials were at the village recruiting labourers to help in the construction of the railway from Yonibana to Makeni. This latter event, resulted in some expansion for people transferred to Makeni from the other villages, including Rogbani, hoping to find paid jobs as labourers. With this movement to the settlement, one had the development of trade because people who had no hope of working as labourers preferred trading rather than going back to their former village to farm. It was really in the following year (1916), that the growth of Makeni was sanctioned. For in that year the railway reached the town. Commerce grew, as a consequence, and many Syrians established shops in the town between 1916 and 1918. Because of the direct link with Freetown,

"a prison was built near the court barri at the town of Makene (Makeni) in the Karene District of the Protectorate of Sierra Leone".<sup>3</sup>

By 1918, Makeni was an averaged sized settlement with rail connection to Freetown, with both Syrian and Creole traders and a skeletal administrative staff in charge of the prison. But the growth of Makeni in terms of population and commerce suffered a temporary hinderance by the anti-Syrian riots of 1919. For Makeni unlike Bo and Pendembu was affected by the riot. As Davis put it,

"owing to the presence of Frontiers, there was no looting from Bo to Pendembu, but at Makeni, the stores were looted inspite of the West African Frontier Force Guard (in transit to Kabala) who failed to wake up the detachment commander".<sup>4</sup>

The riots may have greatly influenced the 1921 administrative changes; Makeni became the headquarters of a new district - the Bombali District. In this decision, the town's commercial importance and rail connection with the Capital were all important factors. With the establishment of the district, certain services were introduced into the town in the same year : a dispensary was opened by the African Medical Service, a Post Office with saving facilities was established and a Mission school was built. The increase in the settlement's functions was reflected in its spatial expansion, and by the end of 1920 or better still 1921 (Fig. 14.1), Makeni

consisted of three discrete parts - the administrative section in the south-west, the railway station area in the south-east, and the settlement of Makeni itself in the north-central. But the direction of growth of Makeni was towards the station.

An example of the influence of communications on town growth.

A fourth section of Makeni was started in 1922 when (as an aftermath of the 1919 anti-Syrian riots) two platoons of the "A" Company of the Sierra Leone Frontier Forces were stationed in the town. (The other one platoon of the "A" Company was at Bandajuma, and all the three platoons of the "B" Company were at Daru).<sup>5</sup> The barracks were built along what is now Lady's Mile west of Rogbani.

By 1923, Makeni was an important settlement with soldiers in the north-west, administrators in the south-west, and in Makeni itself there were, besides Syrian shops, many European commercial firms (such as A. Genet, Jordan, P. Ratcliffe, G.B. Ollivant, and United African Company) along the road to the station (Fig. 14.1). The liveliness of trade in 1923 is evident from that year's Annual Report on the Northern Province which stated inter alia, that the increase in the revenue collected in the Bombali District was

"largely because of the greater number of store licences which were issued".<sup>6</sup>

In another section, the Report states, for the Province, that

"a slight revival in trade brought a small increase in

store licences, though the Bombali District accounts entirely for it, all other districts showing slight falling off. It is note-worthy also that while revenue from both spirits and hawkers licences increased slightly in Bombali, it decreased everywhere else".<sup>7</sup>

Actually Makeni was the fourth most important railway station after Pendembu, Blama and Segbwema, for palm kernels.<sup>8</sup> Even to the traveller two aspects of Makeni were striking : the division into sections, and its healthy commerce. Writing about the latter, (1924) Megeod noted that

"Makene (Makeni) is a busy place with large trade, but it seemed .... regrettable that a new place like this should not have been laid out systematically, and with decently straight and broad streets".<sup>9</sup>

A very vivid impression of the town's layout may be got from his description:

"European houses ..... are up on a hillside with the Court Messenger's lines on the level ground below. The town and the railway are beyond. At the foot of another hill are the Military lines about a mile from the Messenger's lines".<sup>9</sup>

Except for the Railway Strike of 1926, Makeni continued to grow mainly towards the station, and by 1927 the settlement including Rogbani had an estimated population of 1,000.

Between 1930 and 1950, the road era, the development of Makeni as a nodal centre was an important factor in the town's

continuous growth. The most important year for its creation as a communication hub, was 1930 when the following motor roads<sup>10</sup> were completed :

Makeni	-	Katiki
Makeni	-	Kamabai - Kabala
Makeni	-	Kamakwie

In 1932, the road between Magburaka and Makeni was opened to traffic, and by 1933, it was possible

"in this northern district .... to motor from Kabala to Port Loko via Makeni, Pendembu, Batkanu, and from Kabala to Kamalu and Makwie (Kamakwie) via Makeni and Pendembu".<sup>11</sup>

This road network centred on Makeni resulted in four developments. Firstly, the town's population grew and its functional table increased. Secondly, because of road influence, the firms transferred to present day Independence Square. With this transfer, one had African and Syrian retail enterprises being set up close to the firms - hence Makeni's CBD was born. Thirdly, the roads became the new elements of fixation and ribbon development was initiated. And fourthly, in 1931, Makeni replaced Makump as the Provincial headquarter. This also resulted in a further growth of the town, and by the end of 1933, "Makeni or Rogbani"<sup>12</sup> had an estimated population of 2,325. The town's population more than doubled between 1927 and 1933.

The commercial dominance and the nodal status of Makeni was made more certain when in 1942, the railway between Makeni

and Kamabai was torn up. With that, Makeni gained the trade of Kabala, and a large part of the northern Province came within its economic sphere. The town continued to grow, and in 1946, had an estimated population of 7,500.<sup>13</sup>

Since 1950, Makeni has continued to grow because of additions to its functional table - schools, churches, improved medical facilities and better recreational centres. But expansion has been mainly in the form of an infilling of the urban infrastructure, except in the north-west where the Makeni-Lunsar road has become an important area for building since the construction of the Boy's Secondary School in 1958. The importance of the town has increased as that of the other large centres, except Lunsar, of the North has declined. It is generally the case that in moribund areas or economically depressed regions, one or two towns usually tend to emerge as the paramount distribution centres, and the places with the largest number of services. By 1963, Makeni's population of about 12,304 was far higher than those of the other northern administrative centres - Kabala (4,610); Magburaka (6,371); Kambia (3,700); Port Loko (5,809).

In the last ten years - with the building of servicing garages - Makeni's transport status has improved considerably, but it is impossible to accurately ascertain this increase as most of the trade is now handled by privately owned lorries, and the amount of goods handled at the railway station is continuously declining (Table 14.1).

TABLE 14.1

## GOODS HANDLED AT THE STATION - MAKENI (1944-62)

Year	Total Tonnage	Total Value in £'s
1944	4,253	-
1945	3,845	-
1948	4,769	7,891
1950	5,035	12,048
1951	5,124	19,337
1952	5,213	18,426
1953	3,401	11,422
1954	1,159	3,270
1955	737	2,015
1956	578	2,230
1957	140	215
1958/59	334	1,377
1958/60	-	-
1960/61	42	5,522
1961/62	885	4,847

(Source : Annual Railway Reports, 1944-62).

The growing importance of road transport in Makeni may increase still further with the recent construction of the excellent Mile 47 - Lunsar motor road, and the tonnage handled on the railway may continue declining.

But the evident increase in Makeni's population is not reflected in the number of tax-payers, for this has shown a decline in recent years (Table 14.2). This decrease may partly be the result of the fact that the bulk of the increase in the town's population is between the ages of 5 to 18; that is, in the age-groups that do not pay tax. Another possible reason is the seasonal migration of adventurous males to other parts of the country. For if this temporary sojourn lasts more than six months, these migrants do not pay tax in their own towns but in their place of residence.

TABLE 14.2

## NUMBER OF TAX-PAYERS - MAKENI (1958-62)

Year	Number
1958	1,522
1959	2,000
1960	2,213
1961	2,056
1962	2,005

(Source - Tax Lists, Chiefdom Clerk's Office)

Within the town itself, there are marked yearly variations in the population of the different wards (Fig. 14.2). In Wusum ward, for example, the number of tax-payers increased gradually from 1958 to 1961, but 1962 showed a marked slump. In Rogbani ward, 1960 and 1962 show the largest number of tax-payers whereas, Teko ward and Mayanka ward have shown a continuous decline ever since 1960. From these figures it is evident that Rogbani ward is experiencing not only a population boom but also a building phase. A visitor to this section of the town will not fail to notice these expansions.

## 2. Land Use Analysis

(a) Commerce: In Makeni the following types of retail structure may be distinguished: the central business district, the isolated all-purpose shops, and the daily markets.

The CBD is the real heart of the town, for besides having the most modern buildings, it also has specialized functional

entities - shoe stores, drug stores, restaurants and provision stores. Makeni's shopping area is star-like in shape, because of the convergence of roads on Independence Square, the heart of the CBD. Its boundaries are in most cases quite determinate; in the north it is set by swamps; in the east by a mosque and the hospital; in the south by swamps; in the south-west by the lorry park, and in the west by the central market (Fig. 8.1).

Commerce in Makeni, as in some other large towns, is in the hands of European commercial firms, Lebanese, Indians and Africans. These firms sell goods both wholesale and retail to Lebanese and African traders; even to the petty traders. But as in most other centres, commercial firms are closing down. In 1950, there were six firms, but only two (Paterson and Zochonis, United African Company) were functioning by 1964. This trend seems to be a reflection of the recent monopoly of trade in cash crops held by the Sierra Leone Produce Marketing Board. This means that the firms have to concentrate solely on selling consumer goods. To operate at a profit, therefore, they have to be established at centres of large population. As Makeni is in a purely agricultural area with a large proportion of its population engaged in primary activities, the buying potential of the population does not economically warrant the continuation of many firms in the town. Within the town, the positioning of

these shops in relation to the area they serve is geographically rational especially when we realise that they are mostly patronized by the retailers and petty traders whose shops and sheds are close to them.

Similar to other towns, most of the commercial activities in the CBD of Makeni are in the hands of retailers-Indian, Lebanese and African. The Indian and Lebanese retailers, however, are more numerous than the Africans. The Indian and Lebanese shops are found in clusters close to Independence Square. Filling the interstitial areas between these clusters and generally occupying peripheral positions in the CBD are the shops of the African retailers. The types of houses occupied by the Lebanese and Indian traders range from modern concrete houses with cement roofs to old shanty-types built, essentially, of old boards or corrugated sheets and roofed with zinc. These houses serve a dual purpose: where they are storeyed, the basement is used as a shop and subsequent storeys for different purposes ranging from gambling to residence. Where they are bungalows, the front section is used as a shop, the back for residence. As regards shopping space, bungalow shops are usually more congested than shops in storey buildings.

The African retailers mainly live in bungalows but instead of the whole frontage being utilized for commerce, only a wing is used for that purpose.

Thus, it may be concluded that, the distribution of houses in the CBD may be regarded as an index of wealth and best

explained and understood within the framework of the socio-cultural backgrounds of the different ethnic groups involved.

Retailers sell goods ranging from provisions, and ready-made carpets to plastics. Actually, there is a practical absence of functional differentiation in commerce, and one could get one's requirements from a single shop. This may be an index of the incipient nature of commercialism in Makeni. On the whole, the shops of the retailers, except in the case of the Indian traders, employ no other person outside the elementary family.

In addition to the above two commercial types, are the petty traders who sell anything having some economic value. In Makeni, their concentration around the main market gives a visual impression of the density and importance of petty traders in the CBD (Fig. 8.11). Since these traders are generally patronized by people in primary activities, the large number of people still engaged in such activities, may account for the numerous petty traders in the town.

Because of the difficulty of movement in the town, many people do not come to the CBD to buy small consumer goods; they usually get them from isolated all-purpose shops. Since

"within a town any real grouping of purchasers has an equal willingness to travel to the nearest shops ... a consumer will usually go to the nearest centre to make purchase".<sup>14</sup>

Even if housewives avoid the main commercial area, they

must come to the daily markets at least twice a week to buy certain domestic goods. In fact these people come to market very often because of the lack of refrigerators in which to preserve perishable goods like fish and meat.

Like Bo, Makeni has two markets, but the one at the junction of Lunsar Road and Lady's Mile, in the west, seems to be subsidiary to the one just west of the CBD (Fig. 8.11). As the types of goods sold in these markets are generally the same, it means that the smaller and more recent one has captured part of the consumer sphere of the larger and older market.

The main market consists of a long heaped roof building with 100 tables. Around this building, are clusters of traders selling wood, vegetable and locally dyed clothes (Fig. 8.11). There is usually the tendency for people selling the same commodity to occupy definite sections of the market. The market is linked to the CBD by a ribbon of petty traders, whose number decreases as one moves away from the market - a tendency also observed in Lunsar and Port Loko.

(b) Administration: In Makeni, administration falls into three main groups which are functionally and locationally distinct: the Provincial and District administration, the Chiefdom administration and the Town Council. The Provincial and District offices are found in the south-west near the residence of senior civil servants. Close to the Provincial and District office are the Provincial Police headquarters,

the District and Provincial Prison, the local Magistrate's Court, and the Licensing Office. This is a rational cluster because of the functional co-ordinations required between these departments. But the peripheral location of this area in relation to the rest of the town is disadvantageous because of the absence of urban transport. At present, people staying in Rogbani and Teko are at the greatest disadvantage as regards accessibility of the central administrative offices. But since these offices are either for the whole District or for the Province, their anomalous position, in the town, does not create very serious administrative problems.

But these offices are close to that of the Native Administration (N.A.). Thus liaison between them is fairly easy. The location of the N.A. office is equally anomalous but as it is intended to serve the whole chiefdom, this is not an important problem. What is disadvantageous, however, is the fairly long distance between this office and the chief's house; meaning that the chiefdom administrative machinery practically comes to a stand-still at particular times of the day. Furthermore, it helps give an air of officialdom to the Chief who drives to work in the morning, comes home for lunch and finally stops work for the day at about 4.00 p.m. The unofficial relationship that should exist between ruler and subjects in traditional African societies is practically lost.

Occupying a more central position in the town is the office of the Town Council. This is very rational since its position means that it is easily accessible to all sections of the town. But its detached nature from the other two administrative units means that intercourse with them is very difficult. It may be noted that the close spatial relationship between the City Council Offices and the central administrative building in Freetown is lacking in Makeni.

(c) Residence: In Makeni, residential land use is the largest type of urban land utilization, and includes both private residential areas and government residential quarters. Government houses are found in the south-west (on highland) and south-east; whereas private residences are very widespread.

Similar to other urban centres in Sierra Leone, Makeni has examples of most of the house types in the country including the traditional round thatched hut and the modern concrete roofed building (Fig. 14.3).

Good residential buildings (see Chapter 9) are generally found in the main commercial area and the government residential sectors. That is, areas where people are either traders or senior civil servants.

Scattered all over the town are clusters of poor residential houses, which tell the visitor about the type of houses that were characteristic of Makeni before the impact of housing modernization in the country. Observations showed that most of these unhealthy houses are inhabited by 'outsiders' -

mainly Limba and Koranko. Such houses are poorly ventilated and the average number of people per house must be quite phenomenal. For example, there were 30 people in one such house of two rooms and a parlour. Clusters of poor residences are the nuclei for the spread of contagious diseases especially when the increase in educational facilities in the country has meant that underfed, unhealthy and possibly infected children from such houses attend schools with better fed and healthy children. The result is that some of the healthy boys may become infected. Boarding schools may help solve these problems and give practically equal opportunities to all school children, but this is difficult because some families, on the verge of starvation, cannot afford to spend money on boarding fees.

Average residential buildings (rectangular houses with large verandahs) are not concentrated in any one locality; they are scattered all over the town, and are increasing at the expense of the mud huts.

At present, the most common type of building is the rectangular house built of mud, finished with cement, and covered with zinc. The traditional circular mud hut is gradually disappearing from the urban scene, and there is an increase in the construction of concrete houses. In this latter case, the average residential house is generally not demolished - as happens in the case of poor residential buildings - but a new concrete house is either built in another section of the same

compound or on a nearby lot.

(d) Education: In comparison to Magburaka, Makeni, with a larger population, has fewer educational facilities. It has a secondary school (compared to two in Magburaka) and three primary schools (Magburaka has six). Practically all the educational institutions (except for one primary school) are peripheral in location. The secondary school is in the north-west near the Makeni-Lunsar road, and the primary schools are mainly in the east on Teko road. In all these areas there is land for expansion, the surroundings are relatively quiet, and traffic is no hindrance to the free movement of children. Considering, however, the absence of public transport in the town, one is forced to conclude that these positions are anomalous. Children are sometimes an hour late for school, and may be exhausted after a long walk. The Catholic Boys Primary School has a small boarding section but it is quite inadequate. Actually, only boys from places like Freetown who have no guardians in Makeni are permitted to stay there. But since the schools in the town also cater for children in the surrounding villages, their locations are reasonable.

(e) Recreation: As an urban centre expands, its functions become more complex; this is true of commerce as it is of recreation. In Yonibana, football and occasional dancing are the only means of recreations; but in Makeni, besides football,

there is also a cinema, the Metro, and many pubs or bars that are open until the wee hours of the morning.

The main football field is located in the northern outskirts. Here games are played not only between local teams, but occasionally, teams from places like Magburaka, Lunsar and Port Loko play against a selected Makeni team on this ground. The positioning of the field means that traffic problems, on days when matches are played, are not acute. Usually, factors like noise during games, traffic bottle-necking, the availability of space for the construction of the field, the erection of stands and pure aesthetic rationalization, militate against a more central position.

The position of the only cinema (Metro) in the town is central with respect to the town as a whole and also in relation to the surrounding settlements enmeshed in the recreational sphere of influence of the town. People come from places like Magburaka, Binkolo and Kumrabai to attend this cinema. The Metro is really the social recreational centre of the town; it caters for idlers, drunkards and film enthusiasts.

Scattered all over Makeni are bars which should legally close before 11.00 p.m. But behind closed doors, customers continue dancing and drinking.

(f) Religion: Makeni has both muslims and christians, mosques and churches. The churches are found in the north-west (along Lunsar road) and in the south-east along Teko road. The close relationship between mission schools and churches

observed in other urban centres is also evident.

School children, some educated people including a few senior civil servants, and some uneducated people form the bulk of the church-going population. The majority of Makeni's population, except perhaps for a small group of pagans, are Muslims. This stronghold of Mohammadanism is also well marked in other northern towns of Sierra Leone. Possible reasons for this are: firstly the similarity of muslim practices to the former pagan ceremonies of these people; and secondly because some of the social codes of Mohammadanism, such as polygamy, are all within the experience of the native. As it is impossible to locate all the mosques in the town (for they are usually ordinary houses), it is very difficult to have an idea about their real distribution. In Makeni, however, practically every section or ward has its own mosques. Thus journey-to-mosque is not as difficult as that to church or school. But some people staying some distance away from the mosques have cemented sections of their backyard which they use for praying.

(g) Health: All district headquarters have hospitals, and in most cases the number of beds in these hospitals is directly proportional to the population of the town. In Makeni, this is not the case, for Magburaka with a lower population has a larger and better equipped hospital than Makeni (Table 14.3).

TABLE 14.3

CATEGORY OF BEDS IN HOSPITALS - MAKENI AND  
MAGBURAKA

No. of Beds	Makeni	Magburaka
General	24	36
Tuberculosis	-	2
Infectious	-	8
Others	9	20
Total	33	66

The hospital which is situated just west of the commercial core of the town, is central and easily accessible from all sections. But land for expansion is not available and plans for the extension of the hospital would have to take the form of building a completely new one outside the main residential area. Besides expansion difficulties, some people complain that the presence of a mortuary close to their houses always gave them a feeling of nostalgia, and the smell of medicines had a bad effect on them. Such problems could not arise in Bonthe where the anomalous location of the hospital means that land for future expansion is available.

In addition to the hospital, a dispensary run by the Catholic Mission at Teko road greatly helps ease the load on the understaffed and ill-equipped hospital. School children and teachers are often treated at this dispensary. The fact that it is part of the school landscape means that it is easily accessible to the children, especially in those cases where first-aid is essential. The close relationship between

all mission institutions (schools, churches and dispensaries) is very evident here.

(h) Empty Spaces: The radial web-like arrangement of the streets, and the distribution and orientation of the swamps in and around the town, have resulted in empty spaces within its precincts.

The empty spaces between houses are utilized for horticulture and arboriculture. The crops grown, mainly for home consumption, include pepper, cucumbers, okra, and coco-nuts. Whereas swampy areas which have not been drained are used in the rains for rice cultivation but during the dry season, they become grazing ground for cattle and sheep. As these swamps are not drained, they have become favourable breeding grounds for mosquitoes.

### 3. Occupational and Demographic Analysis

The population of Makeni has grown considerably from 204 in 1927 to 12,304 by 1963 - a growth rate only rivalled by centres in the diamond mining area.

Although the bulk of the town's population are Temne, one also finds many Limba, Koranko, Fula and Madingoe; there are also Mende and Sherbro. The Temne are found in almost every type of job, whereas the Limba are generally concerned with the tapping and selling of palm wine. The Fula are essentially herders, the Madingoe mainly traders, but the Mende and the Sherbro are employed as administrators and teachers. A large community of Syrians and Indians, mainly

traders, are in the main found in or near the CBD. The few Europeans in Makeni are employed in the many government establishments - Hospital, Electricity, the Agricultural and the Forestry Department.

Makeni like most of the towns in purely agricultural areas in the country, has an excess of females. In fact there are 6,405 females to 5,899 males. An analysis of the age structure (Table 14.4), shows that about 18.7% of the population are below 5 years of age. This contrasts with the low figures for mining towns like Sukudu (8.2%), and Sedu (11.5%).

TABLE 14.4

AGE STRUCTURE - MAKENI (1963)

Age Groups (in years)	Males	Females	Totals
Under 5	1,098	1,202	2,300
5 - 9	830	1,005	1,835
10 - 14	676	555	1,231
15 - 19	637	684	1,321
20 - 24	438	767	1,205
25 - 29	518	668	1,186
30 - 34	365	426	791
35 - 39	335	329	664
40 - 44	264	237	501
45 - 49	217	144	361
50 - 54	183	110	293
55 - 59	81	75	156
60 - 64	101	89	190
Over 64	156	144	270

(Source : 1963 Census)

TABLE 14.5OCCUPATIONAL STRUCTURE - MAKENI (1963)

<u>Occupational Group</u>	<u>No. Employed</u>
Agriculture, Forestry, etc.	492
Mining & Quarrying	6
Manufacturing	581
Construction	233
Electricity & Water	62
Commerce	908
Transport, Storage, & Comm.	210
Services	428
<u>Total</u>	<u>2,920</u>

(Source : 1963 Census)

In Makeni, out of the total population of 12,304, only 2,920 were gainfully employed in 1963 (that is, 23.7% of the population). More accurately, 37.0% of the total population over 10 years of age worked in the above eight occupational groups. Of these eight employment sectors, commerce is the most important accounting for 31.2% of the total employed population. In fact Makeni is among the 11 most important commercial centres in the country. Here is a clear evidence of the town's role as the most important collecting and distributing centre of the north. A further justification of this is the fact that 19.9% of the gainfully employed population are engaged in manufacturing notably, the production of miscellaneous food products, the making of dyed clothes, wood carving and leather work. All these activities are essentially commercial. Since Makeni is the only northern town, besides

Lunsar, that is growing fairly fast, it is not surprising that construction is responsible for 8.0% of the gainfully employed population. Two out of the four growth phases of Makeni showed the dominance of road or rail transport. Consequently, 7.2% of the working population engaged in communication, storage and transport is reasonable. Similarly 14.6% employed in services is a reflection of the town's status as a provincial, district and chiefdom headquarters, an educational and a medical centre. But the 16.8% still engaged in agriculture shows that Makeni still has more rural characteristics than either Freetown (2.4%), or Bo (9.8%), or Kissy (4.5%). Because of electricity and pipe water facilities in Makeni, it is not surprising that 62 people or 2.1% of the employed population are engaged in the supply of water and electricity. What is surprising, however, is that six people registered as miners or quarrymen. Perhaps they were miners either from Marampa or the diamond mining areas who were on holidays in Makeni.

#### 4. Urban Problems

Makeni has electricity and water supply, but the town like many others in the country has many problems ranging from physical limitations of the site to socio-economic ones.

The relatively high land in the west and north halted the town's growth in those directions, and the presence of swamps as part of the urban landscape, has militated against the

compact expansion of the town. Now there are many empty interstitial spaces which have not been drained for settlement.

Besides the purely physical problems of the site, the town's services are inadequate. Its medical facilities are not commensurate with its population and that of the surrounding areas dependent on it for medical facilities. In the maternity ward, for example, where there are only four beds, women usually sleep on the ground with newly-born babies. Even, the site of the hospital is not quite suitable.

Because of the absence of urban transport, travelling in the town is very difficult especially during the rains. This problem partly explains why children go late to school. Indeed it is responsible for workmen and even administrators without private means of transport going to work late.

Although Makeni has electricity (which some people thought was going to be free), street lights are absent; a very favourable situation for the perpetuation of various crimes. In addition, a few people complained about the taste of the water.

Makeni is generally poor in sanitary facilities: there are inadequate dust bins, no government toilets, and most of the streets are not bounded by adequate cemented gutters. In the rains, filth from the gutters are often washed on to the streets.

As an educational centre, Makeni is beset by problems. The classes are overcrowded, and the schools understaffed.

Furthermore, school children come in contact with the vices of

the city at a very early age. The teachers of one of the primary schools have tried stopping boys from going to bars by making constant checks on all the popular bars in the town. To assist in this, the Head Teacher has appointed well-behaved boys "policemen" for the others. This latter method has not proved very successful for the "policemen" have in some cases been influenced by the bad ones. The only possible method of solving this problem and other related ones is to make all the schools boarding. But this is difficult because of limited funds, and the large number of children in each school.

One unfortunate thing about most of the large towns in Sierra Leone is that they lack bookshops, and adequate library facilities. This means that children and the general public have practically no opportunity of doing extra reading.

The urban geography of Makeni clearly shows the many agents of urbanization in the country. Furthermore, it shows that urban centres in developing countries still have rural characteristics, many social and economic problems. The growth, the pattern of land use and the functional characteristics of Makeni are very similar to that of Bo, the Provincial Capital.

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SECTION D

PROBLEMS AND FUTURE TRENDS

Urbanization not only results in the development of distinct ecological patterns of landuse, street layout and in some respects, house types, but also in the extreme conglomeration of people per unit area, and the evolution of an urban man whose activities are measured by the clock : "there is time for everything and everything is measured by the clock". In addition, the growth of towns whether in developed or underdeveloped countries, has always meant problems, crises, and sometimes partial solutions. The rate of urbanization has never been equalled by that of social improvements for the urbanite. Housing conditions are usually unsuitable, and employment facilities inadequate. In fact where these may be adequate, most migrants to towns may neither have the money to pay the required fees or rents, nor the technical know-how required in certain industries. Furthermore, the readjustment to a new social system characterised by individualism, results in psychological, legal and social problems.

Solutions to urban problems should not only aim at finding a panacea to present ones but should attempt an appraisal of future urbanization trends with the aim of finding final and lasting solutions.

CHAPTER 15URBAN PROBLEMS

Although the total population of Sierra Leone seems to have changed very little during the last seventy years, there have been, however, marked internal redistributions of population. The pattern of settlement has been altered, and even individual centres have shown evident changes as regards functions, land use and size. The growth of towns has been mainly the result of rural-urban migrations (Chapters 2 & 3), but with the influx of people from rural areas, this new factor in the landscape - the town - has become beset by many problems some of which have been discussed in various chapters in this thesis. In this chapter, emphasis will be on a few of the physical, and socio-economic problems of Sierra Leone towns.

1. Physical Problems

Except in the case of planned towns, the founders of settlements may never know how large they may grow. (Sometimes, as in the case of Lunsar, an Alfa - a Muslim priest - may forecast the future size of the settlement). Consequently, the availability of land for eventual expansion of the settlement is never an important localizing factor. More important in this regard are defence, the availability of water and the suitability of the surrounding for agriculture. Hence with the expansion of settlements, former physical advantages become great impediments.

The easy growth of towns in valleys, or mountain tops is greatly handicapped by the limited space for expansion. Congestion of buildings or the expensive construction of houses on hillslopes are the logical solutions to expansion. The cramped nature of buildings at Masingbi and Peyima are a direct result of the physical limitations. Usually, where the highlands follow a well-defined alignment, the town only develops along a particular axis. Uneconomical ribbon development as in Freetown, therefore becomes inevitable.

The presence of swamps within a townscape necessitates the development of amorphous settlements, such as Makeni, Magburaka and Bo, which are often fragmented and honeycombed. In essence, where swamps and rivers are parts of urban areas, they militate against the evolution of compact settlements - a feature very important in Sierra Leone where urban transport facilities are only limited to a few towns - Bo, Freetown, and Kenema. Besides the effect of waterbodies on the shape of the centre, they also act as favourable grounds for the breedings of mosquitoes. Furthermore, if the streams and swamps are sources of domestic water supply, they may become sources for the dissemination of amoebic dysentery, and bilharzia.

Towns occupying amphitheatre-like sites (Freetown, Hangha), and with inadequate drainage facilities, are usually inundated by dirt washed down from the mountain sides. In Freetown, for example, after a heavy fall of rain, the streets and drains

are filled with rocks and debris. Closely related to this, is the badly drained nature of sections of towns. Such areas are mainly associated with the distribution of the main lateritic soils in townscapes. Justifying this, is the fact that in Freetown the main concentration of cess pits are the grassfields with lateritic soils.

When a settlement is small, its water demands are correspondingly insignificant, but as it grows, and the ecological conditions of the surroundings are disturbed, water may become scarce. In the Provinces, this is especially true of towns sited in watersheds (Kabala, and Bo). Freetown was previously famous to sailors for its clear per~~ennial~~ springs but because of the destruction of the forest and the dislodgement of the ecological situation, most of the springs have dried up, and Freetown has had water problems for many years.

## 2. Socio-Economic Problems

Aggravating the physical limitations are the social, medical, and recreational privations of towns in Sierra Leone; and for that matter of urban centres in underdeveloped areas generally. For as Steel observed,

"the seriousness of physical conditions in tropical towns is ... underlined by the extent of disease and the speed with which it may spread especially

in countries where health services are often still rudimentary. Slum clearance, the reduction of overcrowding, the maintenance of health in the poorer quarters of the town, and the adequate provision of medical facilities are thus even more important in Lagos or Dar es Salaam than they are in London, New York or, for that matter, Johannesburg."<sup>1</sup>

In fact amenities (recreation, good housing, water supply, electricity) for urban living are inadequate, crimes and delinquency are also increasing.

As housing schemes are practically absent in the country, the migrant usually finds it difficult to find a decent dwelling. Even where such houses could be found, he is generally very poor to pay the required rent. Consequently, majority stay with friends in shanties and the historical core-areas of towns. The problem of urban housing has been discussed at some length in other chapters (Chapter 3 and 9). Here, we should note that because inexpensive healthy houses are uncommon, deplorable, unsanitary shanties are still parts of townscape. The acute urban housing situation has also been noted by Carney when he stated that

"the current housing situation is deplorable because of poor and inadequate accommodation ..... statistics indicate a high degree of both physical and technical overcrowding, the latter type of overcrowding consisting in inadequate provision for separate sleeping accommodation for members of opposite sex"<sup>2</sup>.

TABLE 15.1

SAMPLE SURVEY OF HOUSING AND POPULATION, IN FREETOWN AREA, 1960<sup>2</sup>

	FREETOWN	
	Sample	Estimated Total
Number of blocks	20.0	300.0
Total number of households	1,357.0	20,355.0
Number of persons in all households	5,656.0	86,000.0
Average number of persons per household	4.2	4.2
Percentage of households occupying one or two rooms	70.0	70.0
Percentage of households occupying one room	41.3	41.3
Percentage of households occupying two rooms	28.7	28.7
Number of households occupying one or two rooms	950.0	14,248.0
Number of households occupying one room	560.0	8,407.0
Number of households occupying two rooms	390.0	5,841.0
Number of persons occupying one or two rooms	3,990.0	59,850.0
Number of persons occupying one room	2,354.0	35,310.0
Number of persons occupying two rooms	1,636.0	24,540.0
Average number of persons per room in one or two room households.	3.0	3.0

Source : Ten-Year Plan of Economic and Social Development of Sierra Leone, (1962/63-1971/72), p. 62.

Actually, there has also been a rise in rents because of increasing demands. A well planned housing policy aimed at preventing the erection of substandard buildings, seeing that houses are kept in a good state of repairs, and helping to prevent overcrowding, may help solve this problem.

Besides this question of private housing, hotels and good rest houses suitable for tourists and middle class workers are

very few. Only a few towns (Freetown, Magburaka and Bo) have hotels with lodging facilities, and out of a total of 160 places with over 1,000 inhabitants, only 47 (29.4%) have rest houses (Table 15.2). Of the 47 towns, six have only temporary rest houses, 27 have permanent ones, and 14 have semi-permanent rest houses. Although it is difficult to clearly distinguish between the three categories of rest houses, observations show that many of them are very unhealthy and badly in need of repairs. Without improvements, the tourist trade in interior Sierra Leone is inevitably going to fail. Rest houses should be renovated and well maintained, and in some towns (Falaba, Kayima), with special scenic attractions, they should have catering facilities and recreational amenities. In the Ten Year Development Plan (1962/63 - 71/72) we read that

"Government proposes to make significant contribution to the alleviation of the shortage of housing".<sup>3</sup>

In this regard,

"government will also make a contribution towards the financing of private housing construction by extending, as soon as its means allow, its own housing scheme for civil servants to the rest of the population".<sup>3</sup>

There are also provisions for the erection of Youth Hostels each costing Le200,000 (£100,000) at Makeni, Bo, Kenema.

In addition to accomodation problems is that of urban water supply. For the high consumption rate of water by urban

TABLE 15.2

## DISTRIBUTION OF REST HOUSES IN TOWNS, 1963

Town	Type of Rest Houses		
	Permanent	Semi-Permanent	Temporary
Bo	6	-	-
Yamandu	1	7	-
Kambia	2	-	-
Bumpe	1	-	-
Rokupr	2	-	-
Sumbuya	1	-	-
Kukuna	1	1	-
Dambara	1	-	-
Mambolo	1	-	-
Tikonko	-	-	1
Kabala	3	-	-
Bonthe	3	-	-
Alikalia	-	-	1
Matru	-	1	-
Falaba	-	1	-
Moyamba	3	1	-
Port Loko	1	1	-
Rotifunk	-	-	1
Lungi	1	-	-
Mano	-	1	-
Songo	-	-	1
Pujehun	2	-	1
Lunsar	-	1	-
Zimi	1	-	-
Magburaka	2	-	-
Kailahun	3	-	-
Bumuna	-	-	1
Segbwema	1	-	-
Dia	-	1	-
Bwedū	-	1	-
Yonibana	-	-	1
Masingbi	-	1	-
Mobai	1	-	-
Manowa	-	1	-
Bandajuma	-	1	-
Kenema	4	-	-
Panguma	1	-	-
Blama	-	1	-
Dodo	-	1	-
Boajibu	1	-	-
Gandorhum	-	1	-
Jaiama (N.Koro)	-	1	-
Jaiama (N.Yema)	-	1	-
Makeni	3	-	-
Pendembu	1	-	-
Kamakwie	1	-	-

(Source : The Provinces Hand Book, 1963)

inhabitants, and the growing population of towns, has meant that the traditional sources of water (a nearby stream or a well) have proved in most cases inadequate. Around the turn of the century, visitors to the Protectorate always spoke about the good quality of the water supply. At that time the water supplies of places such as Koidu, Kabala, Falaba, Bonthe, and Bo were quite adequate to meet the needs of the small population. But now, in all these towns, except Bo where there is pipe water system, water becomes either very scarce or heavily polluted at certain periods of the year. Before the First World War, Makeni and the other villages around, had sufficient water but by 1958, the problem of water supply for Makeni was so acute that the Medical Report for that year stated inter alia, that it was one of the major health problems facing the town for when surface streams either failed or became polluted, the main water supply of the whole town was derived from private shallow which, the Report continues, were never capable of yielding good drinking water however clean they may look. Similar observations were made about Port Loko and Kambia. Freetown is also a very good example of a settlement whose original sources of water have now proved inadequate. Previously, it was an important watering place for ships because

"the water which tumbled down from the Colony Mountains in clear, fresh streams, was of excellent quality".<sup>4</sup>

But since the 1940's, water has become a scarce commodity for

"the main source, mainly stream intakes of which there are many, are quite unable to meet requirements in the latter half of the dry season each year, and the duration of this inadequacy is tending to lengthen because of the natural growth of water demand".<sup>5</sup>

In a particular year, 1945,

"the dry weather flow in streams used for civil supplies was reported as 185,000 gallons per day, and at the 1944 census the population was 87,000. The available supply was, therefore, only about 2 gallons a head daily".<sup>6</sup>

Now the

"problem of water supply exists in Freetown in an acute and unexpected form".<sup>7</sup>

With increased urbanization, there is inevitably going to be an increase in water problems (actual shortage, and that of purification).

To help solve this question of urban water supply, the government in the 1950's, decided to supply the major towns with pipe-borne water. But even as late as 1964, only 29 centres had some type of water supply. Actually, of those 29 places (Table 15.3), 10 have pipe-borne water for particular uses - either for hospitals or the government residential quarters. Of the remainder, only three (Bo, Makeni and the Freetown agglomeration) have full treatment works, and in seven others,

TABLE 15.3

## CENTRES WITH EXISTING PIPE-BORNE WATER SUPPLY - 1964

Town	Designed Capacity	Average Daily Draw-off (Gallons)	Treatment
Bo	600,000	280,000	Full
<u>Bonthe (Hospital)</u>	1,000	2,000	Part
<u>Kailahun</u>	-	20,000	None
Kambia	30,000	46,000	None
Kenema	400,000	200,000	Part
<u>Koidu (Hospital)</u>	10,000	9,500	Full
<u>Koyeima</u>	-	2,000	None
Lungi	30,000	20,000	Part
Lunsar	60,000	54,000	None
Magburaka	180,000	90,000	Part
Moyamba	216,000	100,000	Part
<u>Njala</u>	-	7,000	None
Port Loko	60,000	70,000	None
Rokupr	35,000	40,000	None
Sefadu	16,000	15,000	None
Teko	6,000	6,000	None
Makeni	350,000	270,000	Full
Tankoro (Barracks)	12,000	8,000	None
Mortema (Barracks)	12,000	8,000	None
<u>Kabala</u>	6,000	6,000	None
<u>Panguma</u>	6,000	-	None
Woama	12,000	9,000	Part
Daru	100,000	80,000	Part
<u>Pujehun</u>	5,000	5,000	None
Hastings	-	30,000	Part
<u>Newton</u>	-	15,000	None
<u>Waterloo</u>	-	800	None
<u>York</u>	-	1,000	None
Freetown (Area)	21 million	4 million	Full

(Source: From G.J. Williams, Geogr. Dept. Fourah Bay College)

Note : The underlined centres only have water supply for particular purposes.

the water is only partly treated. As regards the type of water supply, Davies distinguished three main types of towns : some

"have water supplies but the supply is known to be less than the demand (as in Rokupr and Port Loko); others have water supplies sufficient in quantity, but not in

quality; therefore treatment is needed; still others have no township water supply at all and the distance from the townships at which reasonable and continuous running water is available varies considerably - from a few yards to a few miles".<sup>8</sup>

The urban water supply problem is still very acute, and although 27 centres are scheduled for either pipe-borne water supplies or improvements on existing ones (Table 15.4), we may not hope to solve this problem in a decade. Actually, ceteris paribus, we may have by 1972, 43 places with pipe water systems (see Tables 15.3 & 15.4). But what about the remaining 117 places with over 1,000 inhabitants? Since the availability of water is often

"a determining factor in urban and rural growth potential which itself is a limiting factor of ultimate expectable returns from industrial investments",<sup>9</sup>

one wonders whether, within the limits of our potential water supply, increasing urbanization in certain sections of the country should not possibly be halted. Population decentralization may not lead to any acute water problems - considering that in the pre-colonial era when there were few large villages water shortage was not evident.

Closely related to the insufficiency of urban water supplies, is the inadequacy and unreliability of urban power supplies. The H.E.P. potentials of the country have not as yet been utilized; consequently, the present source of power

TABLE 15.4

## TOWNS SCHEDULED FOR PIPE-BORNE WATER SUPPLY (1962-72)

Town	Capacity (in gallons per day)
Segbwema	400,000
Kamakwie	300,000
Kenema	400,000
Jaiama (N. Koro)	240,000
Kabala	280,000
Lungi	120,000
Rotifunk	300,000
Mambolo	200,000
Matru	300,000
Bonthe	160,000
Yengema	160,000
Kasiri/Kycho	160,000
Mano	160,000
Lunsar	360,000
Sumbuya	200,000
Magburaka	400,000
Kailahun	240,000
Blama	200,000
Pendembu	160,000
Kambia	240,000
Gbangbatok	160,000
Port Loko	240,000
Rokupr	200,000
Pujehun	200,000
Bweddu	120,000
Songo	80,000
Panguma	100,000

Source : Ten Year Plan of Economic and Social Development of Sierra Leone, (1962/63-1971/72).

is thermal. Before the end of World War II, only Freetown, had electricity, but in the post-1945 period, electricity is gradually become the source of power in many provincial towns. But even by 1958, only eight centres (Freetown, Bo, Kenema, Njala, Rokupr, Lungi, Magburaka and Bonthe) had electricity. And of all those towns, only the electricity department in Freetown made any profit

between 1954 and 1956. As Jack put it :

"Of the eight stations now (1958)....in operation, Freetown alone can more than cover its cost. In provincial towns the loss, even excluding Bonthe, has not yet diminished ... these provincial losses are inevitable during the early stages of development and that they are the result (a) of the high costs incurred when small and relatively efficient plants are employed and (b) the smallness of the local consumption".<sup>10</sup>

These problems are still factors inhibiting the wider use of electricity in towns. Most migrants prefer the paraffin lamp or the family fire to this modern lighting and heating device which they cannot understand nor appreciate. In spite of these difficulties, electricity has gradually been installed in many important towns (Kabala, Koidu, Kambia, Kailahun, Port Loko), whereas that of Freetown has been considerably increased (Table 15.5). By March 1964, 17 centres had electricity with installed capacities ranging from 10,800K.W. to 66 K.W. There is,

"every indication that the maintainable rate of growth of electricity generating capacity, output and consumption within the country as a whole will be in the region of 15 to 16 per cent in the next ten years... In the Freetown area an average rate of 12 to 15 per cent may be expected, while in the Provinces, a much higher rate may be achieved of not less than 20 per cent".<sup>11</sup>

But even at this rate, the problem of supplying reliable and adequate power to all important urban centres may not be solved

in the foreseeable future.

"While the growth curves may be expected to taper off after a period sufficient for demand to become stabilized, this event cannot confidently be predicted as being certain to occur within the next twenty years or so."<sup>11</sup>

TABLE 15.5

GENERATING CAPACITIES AND AVERAGE PEAK LOADS FOR STATIONS  
(APRIL, 1963 to MARCH, 1964)

Station	Installed Capacity	Average Peak Load
Blackhall Road } Freetown	5,000	} 7,263 K.W.
Falconbridge }	5,800	
Bo	810 K.W.	599 K.W.
Bonthe	88 K.W.	52 K.W.
Daru	52 K.W.	36 K.W.
Kabala	100 K.W.	52 K.W.
Kailahun	145 K.W.	26 K.W.
Kambia	165 K.W.	39 K.W.
Kenema	720 K.W.	291 K.W.
Koidu	380 K.W.	214 K.W.
Lungi	280 K.W.	114 K.W.
Magburaka	360 K.W.	124 K.W.
Makeni	280 K.W.	158 K.W.
Moyamba	240 K.W.	79 K.W.
Njala	94 K.W.	24 K.W.
Port Loko	240 K.W.	73 K.W.
Pujehun	100 K.W.	37 K.W.
Rokupr	66 K.W.	20 K.W.

Source : From G.J. Williams, Geogr. Dept., Fourah Bay College.

Although the dry cell battery has made it possible for people in places without electricity to enjoy the comforts of a radio, most other modern amenities, for example washing machines, are still tied to electricity. Hence for a long time people in towns without electricity may not enjoy all the benefits of modern civilization and scientific inventions.

Sierra Leone towns are also deficient in many other facilities. For example, only a few (Freetown and the Rural Areas, Bo, and Koidu) have public transport. This is an important problem, because with the growth of large centres and the increasing distance between home and office, travelling to work becomes increasingly difficult. People go to work late and school children who find it difficult to walk to school daily, stay out of school. In Makeni, for example, teachers of the primary schools were complaining about both the irregularity, and the tardiness of children. Even inter-urban communication is difficult for most of the roads to and from towns are urgently in need of repairs, and the internal air service is not only expensive but only restricted to certain towns (Bo, Hastings, Lungi, Daru, Kenema, Gbangbatok, Yengema). In the Ten-Year Development Plan, new airstrips are to be constructed

"at Kabala, Kailahun, and Moyamba, Bonthe and Songo, construction of which will cost about £125,000, and improvements to existing airstrips and provision of equipment".12

Up to the present time, internal air operations have always resulted in losses, and the government's decision to build new airfields shows that the construction of aerodromes is now determined more by political than purely economic factors.

Since towns are not only the main generators of traffic but also the areas of vehicle concentration, one would have felt that garages and petrol stations would be integral parts of townscapes.

But this is not the case as only a few large towns have petrol stations, and a still fewer number have good garages. Since of the 60 places with over 2,000 inhabitants, only 26 have petrol stations (Table 15.6), it is therefore a real ordeal owning a car in most of the urban centres of the country. This point becomes clearer if one realizes that repairing and servicing facilities are concentrated in Bo, Freetown, and Kenema. In Koidu only Volkswagen vehicles are serviced. Consequently, vehicle owners in other towns have to take them to one of these centres for servicing. People from Kambia and Port Loko, for example, take their cars regularly to Freetown for this purpose. Similarly Peugeot car-owners in Koidu send their's to Freetown.

Indeed living in most towns in the country is beset by many problems. Recreational facilities are very inadequate for besides the most popular game, football, only few of the larger towns have tennis courts, cinemas or night clubs. No wonder most young people like working in Freetown, Bo, Kenema or Koidu. In fact there are cases when people have preferred to resign rather than work in towns like Kambia, Port Loko or Kabala.

Urban centres have also become the homes of social vices.

Because

"with the progress of social change, the migration from rural to urban centres and the problems of urban life, criminal offences have been on the increase, and so has been the trend of juvenile delinquency in recent years".<sup>13</sup>

TABLE 15.6

## DISTRIBUTION OF PETROL STATIONS IN TOWNS - 1964

Town	No. of Stations
Freetown	30
Bo	7
Kenema	4
Kissy	4
Makeni	3
Lunsar	1
Koidu	2
Wilberforce	1
Magburaka	3
Segbwema	1
Port Loko	1
Kailahun	1
Blama	2
Wellington	1
Kabala	2
Moyamba	2
Murray Town	1
Rokupr	1
Kambia	1
Matru	2
Baoma	1
Pendembu	1
Mano	1
Pujehun	2
Koribundu	1
Lumley	1

Commercial prostitution is practically unknown in traditional African community, but because urbanization is mainly the result of exotic factors, the larger urban centres are now scenes of prostitution. This is especially true in Freetown, Bo, Kenema and Koidu; the former two are the result of the size and complexity of their population, and the latter ones reflect the evil consequences of diamond mining and the easy circulation of money. On the whole, however, prostitution

is not as important in Sierra Leone towns as in Ghana (with 'Jaguar' girls) and Nigeria (with 'Hotel' girls). In the Sekondi-Takoradi area of Ghana, for example, there were in 1948 about 127 known prostitutes many of whom

"had no home ties or family obligations, and had changed their names".<sup>14</sup>

Although prostitution is not an important urban vice in the country, juvenile delinquency is very marked. On the whole delinquency cases are still very high (Table 15.7). The primary cause of delinquency is

"failure of home life, this failure being manifested in many forms: (a) lack of parental care and supervision resulting from the separation of parents; (b) the absence of one or both parents at work during the day; (c) repudiation by the father of responsibility for the children ....; (d) the practice of sending children to live with relatives, which is apt to fail under urban conditions, with the breakdown of the extended family".<sup>15</sup>

TABLE 15.7

JUVENILE OFFENDERS - UNDER 21 YEARS  
(1953 - 63)

Year	Number
1953	178
1954	155
1955	277
1956	273
1957	585
1958	751
1959	806
1960	319
1961	299
1962	567
1963	696

Source : Report on the Prison Dept.,  
(1953-63)

The Ministry of Social Welfare is concerned about the increasing rate of delinquency in the past few years for it has been estimated that for every delinquent child caught, there are four who are not apprehended. To help solve this problem, the probation system has been gradually extended. Commenting on this, A Progress Report on Economic and Social Development, 1965, states that the Probation System

"has continued to prove its usefulness, particularly in the large urban centres like Freetown, Bo and Makeni. This system ensures that no boy is given institutional treatment for his incipient delinquency when it could be checked or eradicated by putting him under the trained supervision of a Probation Officer for a specified period of time - usually not less than a year".<sup>16</sup>

TABLE 15.8

PERSONS COMMITTED AND CONVICTED IN SIERRA LEONE (1950-63)

<u>Year</u>	<u>Committals</u>	<u>Convictions</u>
1950	5,620	3,385
1951	5,639	3,317
1952	5,510	3,539
1953	7,788	3,597
1954	8,774	3,630
1955	12,912	6,718
1956	13,305	5,077
1957	15,464	6,854
1958	24,405	8,693
1959	14,446	10,787
1960	12,089	4,913
1961	12,163	4,693
1962	17,507	7,276
1963	16,210	6,348

Source : Report on the Prison Dept., (1950 - 63)

There has also been no evident decline in the annual number of persons either committed or convicted in the country

(Table 15.8). An analysis of crimes for 1963 (Fig. 15.1) shows that of a total of 17,969 crimes reported at urban centres in the country, about 3,358 were against lawful authority, 304 against public morality, 3,329 against persons, but 10,562 against property, and only 416 against the liquor act. In other words, about 61% of all cases reported were against property, a reflection of the arduous living conditions in towns - especially for migrants who are forced to find something to eat and wear by any possible means. In the Sekondi-Takoradi area, Busia also observed that 62% of the offences were against property. In both cases we may conclude that

"given the economic hardship of town life, persons more prone to break law are those who are socially isolated, either because they do not belong to the indigenous community, or because they have few social responsibilities".<sup>15</sup>

The results of increased urban migration have been discussed at some length in another chapter (Chapter 2); here we may, however, add that the problems of malnutrition and disease in towns are becoming graver with the increasing cost of living and overcrowding. In addition, some sick, deformed or destitute people have formed a fairly large class of beggars. In Freetown for example, one could count hundreds of them on Saturdays.

In conclusion we may observe that

"there are considerable economic problems in communities where the tradition of working for regular wages is usually quite

new and where there is little experience of dealing with the economic consequences of the congregation of fair numbers of people within a restricted area. Food, for example, is often high priced and sometimes very hard to buy; housing may be difficult and gross overcrowding may result; rent-profiteering is common, even in slum property; the journey to work may be long and tedious, especially where local transport services are poor".<sup>17</sup>

The results of urbanization are sometimes frightful and discouraging. On these counts, pessimists have condemned the city. A dozen Americans set out to do this in a book, Cities Are Abnormal (1946).

"Being pushed around in a great metropolis is getting to be quite annoying to many people",<sup>18</sup>

and those worried about security in cities, have found exemplification for their fears in Paris. They have therefore started wondering

"whether ... modern warfare (especially the atomic bomb) does not advise us to scatter rather than to gather in dense clusters of humanity".<sup>19</sup>

Because of these factors, together with the congestion and curtailment of recreational facilities in towns, the question:

"Is urban life the norm of existence? Or, to coin a new word, is it an abnorm?"<sup>20</sup>

must be answered.

In spite of the many invectives against the city, it has been recognized that the gathering of people in cities was the

beginning of civilization with its emphasis on specificity of functionalism. In fact the percentage of a nation's population living in towns has often been regarded as one index of civilization. But

"prodigious as has been the contribution of the great cities to civilization by the multiplicity of associations and interchanges which they have facilitated, the terrible fact is that they have not been able at any time to assure to more than a fraction of their inhabitants homes and working conditions and social surroundings on standards advancing at the same rate as their productive potential. And now even this productive potential is being cut into and held back by the confusion and congestion that industry's own successful evolution has brought about".<sup>21</sup>

There is an increasing competition for valuable land between the urban spread, recreation and agriculture. But urbanization is inevitable. What we should do is to try to find lasting solutions to these urban problems.

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CHAPTER 16  
FUTURE TRENDS

Since the initiation of urbanization in Sierra Leone, there has been, within this relatively short period, the inception of new forces and the slackening of former ones; the replacement of less potent agents by more ephemeral and effervescent ones. It is therefore possible to divide the factors responsible for the present urban pattern into primary and secondary. Primary forces are those which are potent enough to generate the growth of some towns and also cause radical changes in regional settlement networks. Secondary forces, on the other hand, are not powerful enough to initiate urbanization, but they can accelerate the growth of towns.

(a) Primary Forces include:

- ( i ) abating forces - administration, old plantations, communications and ethnic characteristics;
- ( ii ) effervescent ephemeral agents such as mining;
- ( iii ) permanent influences - employment opportunities in towns, and rural-urban migration;
- ( iv ) proemial agents like new plantations in the south and north, government policy on urbanization and industrialization.

( i ) The abating forces now have practically no effect on the distribution and sizes of towns for administration is relatively stable, the old plantation areas now attract only a few people from other sections of the country, and the time when the settlement pattern of an area may be explained mainly

in terms of geographical determinism and tribal characteristics is now passed. Towns are now not only cosmopolitan, but are one of the few things that have shed off their ethnic allegiances and are now part of a system with functional linkages and functional nesting of smaller centres in larger ones. As the above factors are no longer very important town-forming agents, they may be completely disregarded when discussing factors that may influence future urbanization in the country. Similarly, communication routes, notably the railway, which were previously important factors, have become less potent. Actually, roads are constructed to join settlements.

(ii) Ephemeral agents, mainly the creation of the post-war period, are still very powerful and may remain so for some years. Diamonds, for example, are directly responsible for the phenomenal growth of many towns in the Koidu-Kayima-Matru triangle, and iron mining for the rapid development of Lunsar and Pepel. Now bauxite is creating Mokbanji as a new urban centre. These are non-renewable resources, and the history of Hangha, the former chrome mining centre, shows that they are really temporary and any settlement pattern they produce is inevitably transient.

(iii) The permanent forces are less eruptive in action. The feeling that an urban way of life is better and a paid urban white collar job is safer, will for a long time continue to attract people to towns. Rural-urban migration is a trend which has been observed in all the developed nations of temperate

latitudes and is now in vogue in the developing countries.

(iv) Since independence (1961), new forces have been initiated, and although it is still premature to assess their influence on the existing urban pattern, if the present trend continues, these forces will cause a redistribution of population and possibly, a new urban network characterised by demotions and promotions. Presently, the development of plantations in the south and north are attracting both frustrated miners and lazy farmers. Now there are large numbers of migrants in centres such as Taiama, Makeni, and Gbangbatok. If a new census were taken in April 1966, the distribution of the urban population may have started showing new centres of gravity. In addition to plantations, the desire of the government to develop certain towns like Makeni, is bound to have effect on the future size of towns and the general urban network. Also related to this post-independence era, is the gradual development of industries which have already started attracting people and will continue to do so at a faster rate. This latter factor is going to be very important because most of our industries cater for unskilled labour.

(b) Secondary forces (retail, education, medicine) are only generated after the centre has grown. As a result, they may not have important influences on the future trends of urbanization in the country.

These different agencies may have core-areas where they

are the factors responsible for the urban pattern, but there are also zones of overlap. The relative importance of these forces in urbanization in the country may be grasped from an analysis of the growth graphs of some towns selected from different areas of the country.

1. Analysis of Growth Curves (Fig. 16.1)

(a) Bo : the growth of Bo reflects, during particular periods, the influence of one or two dominant forces. During 1927/37, when the compound annual rate of increase was 5.3%, the town was important as an agricultural centre, and an over-night stopping place for people travelling by train to the east. Although administration may have contributed, it really became important in the 1938/47 period when Bo's population increased at an annual rate of 9.0%. Furthermore, the feeling that Bo was a logical alternative to Freetown was so strong at that time, that it was selected, in 1946, the headquarters of the "Protectorate Assembly". It was also during that period, that Bo became an important commercial, educational and medical centre. In fact, the town was then one of the two provincial towns with a secondary school. Growth in the early part of the 1948/63 phase was essentially the result of alluvial diamond mining. Bo, then the centre of the Protectorate, became the core for the diamond trade. Actually it is generally believed that Bo had a higher population in 1956 than in 1963. But since 1956 after the expulsion of foreigners from the diamond

mining area, and the shifting of the centre of gravity of the diamond trade to Kenema, Bo has lost a large proportion of its floating population for only a few stayed on to trade and find paid jobs. In addition, the growth of Kenema and Makeni as rival employment centres may have been partially responsible for the annual rise of only 3.6% in the 1948/63 period. There are indications that in the post-1963 period, the town's rate of growth may decrease considerably because of new employment facilities in the south and north where plantations are developing. In fact the government's plans to develop Kenema and Makeni as important regional centres at par with Bo will adversely affect the town's growth rate. The projected mean annual rate of 0.9%, therefore, is characteristic of a population growing mainly by natural increase. There will then be few new attractions to entice many people from the countryside or from other sections of the country.

(ii) Kenema: This town's past growth was dependent on its importance both as an agricultural (1927/37 period), and an administrative and commercial (1938/47) centre. But its phenomenal growth in the 1948/63 period reflects not only the influence of alluvial diamond mining, but also the development of the forest industries in the town, and the friendly attitude of the chief to strangers - hence the high rate of 7.8% per annum. As diamond mining decreases, and other employment facilities open in other areas, many miners will return

indirectly to the soil (working on plantations) or to paid jobs in the new industries. These trends are now under way, and tend to show that Kenema's growth rate is bound to decline. And although the projected annual rate of 1.1 may be an under-estimate, it may not be far from the truth for the hustle and bustle that previously characterized the town is gradually dying down.

(iii) Makeni: Makeni's growth up to 1947, was a reflection of its importance as a rail terminus, an administrative centre, a nodal point and a marketing town. Because of these factors, the growth rates in the two periods 1927/37 and 1938/47 are almost even; showing a steady flow of people into the town from rural areas and other sections of the country. But this steady growth of the town was halted by the diamond boom which attracted people to the Sewa and Moa River valleys. Commerce, therefore, decreased, and the town's annual rate of growth dropped from 10.5% to 3.1%. The future, however, looks brighter for Makeni than for either Bo or Kenema, mainly because of the government's determination to improve the town. Now plantations are being developed around the town, and amenities like an improved hospital, are all planned for Makeni. As a result, migration to Makeni is gradually increasing and will increase further when industries are subsequently added to the town's functional list. Thus, Makeni's future annual growth rate may not be less than 2.6%.

(iv) Kabala: This is one of those towns whose growth reflects movement of people from the surrounding moribund settlements. The 10.6% annual rate of growth in the 1927/37 period shows its importance as an agricultural central place, an administrative centre and an important defensive town with a Frontier Force. During the 1938/47 era, the increasing functions of the town, resulted in accelerated rural/urban migrations. It was during this era that the Fula migration from Guinea to Kabala got under way. In 1948/63, the diamond boom attracted people from the Kabala area to the east. What, however, saved Kabala from depopulation, was the influx of Fula from Guinea to the Yogomaia section of the town. But the post-1963 period looks bright because there are plans for large scale horticultural developments around the town. In addition, the road-links between Kabala and other parts of the country will be improved. Kabala may look to the future with optimism ; its population may show an annual rate of increase of about 3.1.

(e) Bonthe: The decrease in this town's population in 1927/37 reflected the growing importance of Bo and Freetown, and the gradual silting up of its approaches. The town, however, made some recovery during the Second World War because it was used as an alternate port to Freetown. Hence its annual rate of increase (1938/47) of 3.6%. After the war, when wartime emergencies were rationalized and economic

streamlining was advocated, Bonthe started declining.

Commerce was considerably reduced, and by 1963, it was a typical moribund town showing an annual population decrease of 1.3%. The development of plantations on Sherbro Island by the Sierra Leone Produce Marketing Board, may be a good sign for the future, the town may become lively again. Actually, an airfield is under construction. With this trend the population may increase in the future at an annual compound growth rate of not less than 1.1%.

(f) Kailahun: This town, like Bonthe, seems to have gained little from its functions as both an administrative and an agricultural collecting centre. Its growth rate was only encouraging in the 1948/63 period when plantations were important sources of income in this area. Now, plantations are more widespread, and Kailahun has lost most of its functional role as a retail centre for the agricultural region of the Luawa Peninsula. Since there are no new activities in the town to attract people, if something radical is not done to help the town, its rate of growth may be less than 0.2% per annum.

(g) Lunsar: The influence of iron ore mining is evident on the growth curve of the town. The 33.7% annual rate of increase for 1927/37 epoch points to the initiation of ore mining and the influx of people for work. Similarly the 7.9% and the 9.0% for the periods 1938/47 and 1948/63 respectively show the same influence. But as the labour force at Marampa is now stable,

subsequent population increase will mainly depend on the introduction of new basic activities such as commerce, and industries. But as these new forces may not result in the mercurial growth of a settlement, the projected annual population increase of 1.6% per annum for the 1964/73 period may be reasonable.

TABLE 16.1

COMPOUND ANNUAL RATES OF GROWTH FOR SELECTED  
TOWNS (1927 - 1973) - in per cent

Town	1927-37	1938-47	1948-63	1964-73
Bo	5.3	9.0	3.6	0.9
Kenema	5.8	6.7	7.8	1.1
Makeni	10.6	10.5	3.1	2.6
Kabala	9.5	11.9	2.6	3.1
Bonthe	0.2	3.6	1.3	1.1
Kailahun	0.5	0.4	4.2	0.2
Lunsar	33.7	7.9	9.0	1.6

From Table 16.1 it is evident that during 1927-37, the towns which showed the greatest increases were mostly agricultural-cum-administrative centres and the iron ore mining centre of Lunsar. The period may therefore be regarded as the agricultural-administrative epoch with mining and commerce (in the north and south) auxiliaries. Although the 1938/47 period showed similar trends, there was an evident increase in trade especially with the development of roads and the growth of settlements as central places. This period may be regarded as the trading era with the development of an urban hierarchy.

The 1948/63 period was the mining era (diamonds, rutile and bauxite) with plantations secondary; whereas the 1964/73 epoch is designated the industrial and plantation phase.

The first three eras resulted in the differential growth rates of large centres, the decline of former towns and the elevation of villages to urban status (Fig. 16.2). From this map, it is evident that many previously large settlements have declined during the mining-plantation phase, whereas centres in the Sewa River valley and the mechanical rice cultivation region of Mambolo grew very fast in the same period. Outside these two areas, only important trading centres like Matru, Magburaka and Makeni, have also grown relatively fast. On the whole (Fig. 16.2), moribund settlements are concentrated in the south, south-west and south-east and also in the former Colony Peninsula outside the Greater Freetown area. In other parts of the country, decaying towns are few and more scattered. Along the railway, towns have either remained stagnant (Kailahun, Gerehun), or declined (Songo, Daru, Mano), or shown only a slow rate of growth. The present pattern of declining, stagnant, and growing towns therefore reflects the varying importance of different agents of urbanization, working within a historical framework.

## 2. Future Trends

The future trends in urbanization do not heavily depend on mining because most mining areas have already passed their boom phase and the new mining activities cannot cause large scale

settlement changes similar to that caused by diamond mining. The future urban pattern will therefore mainly depend on industrialization, plantation agriculture, and government attitude towards particular urban centres. But since in the next few years industries will mainly be localized in the large towns, the dominance of such centres will increase, whilst the decline of smaller urban centres will continue. Certainly, the urban morbidity of the south will become more widespread. In essence, the settlement network will then be in Gibbs' fourth and fifth stages of population concentration when population of small towns undergoes an absolute decline and there is a change toward a more even spatial distribution of population.<sup>1</sup>

Besides industries, plantations and market gardening may also influence the future trends of urbanization and result in the development of large settlements in the south-west (around Bonthe and Gbangbatok), in the area around Taiama and Makeni, and in the market gardening regions based on Kabala.

Thus by 1973, the urban pattern will be more rational. There will be fewer and larger towns in the diamond mining area, and the importance of the larger agricultural collecting centres will increase with the construction of more all-weather roads. Although the trend will be towards larger towns, one will still find clusters of small centres in the Mambolo rice region, and the new plantation areas. The urban network of the country however, will still be far from stable.

As regards internal structure of towns, clear-cut ecological patterns will emerge, and the incipient CBD's, especially that of Freetown and Bo, will become more mature, and specialized stores will develop in larger provincial centres.

Since there are no provisions for the large-scale construction of cheap houses for the migrants in the Development Plan, urban social problems (Chapter 15) will still persist. For

"the unprecedented rate of population growth, ... the drastic steps necessary to bring economic development by force-draft - all are bringing huge waves of rural-urban migration, ... (many) peasants landing in ... (towns) ill-equipped to handle them from an economic, sanitary, political, or any other point of view".<sup>2</sup>

But since the

"whole process of urbanization is so massive and so intimately bound up with the coveted goal of economic development ... it is probably impossible to stop. If so, ... the innumerable problems growing out of ... urbanization must somehow be solved without eliminating the basic cause which is urbanization or city growth itself".<sup>3</sup>

Though the urban pattern will change, and individual towns may become larger, physical features will for a long time, remain part of townscapes and urban forms may still be mainly explained in terms of geographical determinism (reflecting

the absence of competition for land from agriculture and recreations). Urban problems will still persist. In essence our towns, for many years, will continue to have the characteristics of Sjoberg's pre-industrial city.

### References

1. J.P. Gibbs, "The Evolution of Population Concentration", Econ. Geogr., 39, 2, (1963), p.119.
2. K. Davis, "Forward", Urban Research Methods, (ed. J.P. Gibbs, Van Nostrand, 1961), p.xxi.
3. Ibid., pp. xxi-xxii.