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Emergent-Urban Places in Africa; The Case

of Ankole, Uganda

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Geography

Ъу

Joel Bruce Splansky

Doctoral Committee:

Professor Benjamin E. Thomas, Chairman

Professor Howard J. Nelson

Professor Charles Nixon

Professor Joseph Spencer

Professor Robert R. Griffeth

The dissertation of Joel Bruce Splansky is approved, and it is acceptable in quality and form for publication on microfilm.

Howard J. Delson

Charle R Myo

B. E. Phomas

Committee Chairman

University of California, Los Angeles

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VITA

- November 15, 1938--Born, Chicago, Illinois
- 1960--A.B., University of California, Los Angeles
- 1961-1963--Peace Corps, Nigeria
- 1963-1966--M.A., University of California, Los Angeles
- 1965-1966--Teaching Assistant, Department of Geography University of California, Los Angeles
- 1965 Summer--Instructor, Peace Corps Training Program; Western Michigan University
- 1966 Summer--Instructor, Peace Corps Training Program;
 Morehouse College
- 1966-1967--Instructor, Department of Geography; University of California, Los Angeles
- 1967-1969--Lecturer Makerere University College; Kampala, Uganda
- 1969-1971--Assistant Professor, Department of Geography; California State College, Long Beach

PUBLICATIONS

- Splansky, Joel. "The Concentric Zone Theory of City Structure As Applied to an African City: Ibadan, Nigeria," Yearbook of the Association of Pacific Coast Geographers, Vol. 28 (1966), pp. 135-46.
- "Some Geographic Characteristics of Permanent Retail Institutions in Ankole, Uganda,"

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ABSTRACT OF THE DISSERTATION

Emergent Urban Places in Africa;

The Case of Ankole, Uganda

by

Joel Bruce Splansky

Doctor of Philosophy in Geography
University of California, Los Angeles, 1971
Professor Benjamin E. Thomas, Chairman

Widespread urbanization in tropical Africa is a relatively recent phenomenon. Traditionally, urban development has not been characteristic of societies that are wholly engaged in subsistence economies. It therefore proves of interest to examine the processes within, forms and character of, and relationships among, urban places that appear as a society's subsistence activity is replaced by a commercial economy.

Until the twentieth century, the populace of Ankole, Uganda was engaged in a subsistence economy. Settlements were dispersed as farmsteads across the landscape and large compact settlements that performed functions other than residences for farmers/herders, were unknown.

In Ankole since 1900, over 390 settlements have been established that function to perform commercial, administrative, educational, and other services to the surrounding rural populace. These service settlements range in size from 3 to 5,100 persons. Collectively they form the

embryonic urban place system now evolving in Ankole. As urbanization proceeds over time, some urban places will continue to grow, others will remain static, while still others are likely to decline and even be abandoned.

For purposes of study, all settlements exhibiting at least one commercial and/or administrative function, (regardless of size) are regarded as urban places. It is argued that this is a valid basis for classification in that such settlements are functionally very different from the traditional settlements of the study area.

The study presents and examines data that permits an analysis of Ankole's urban places. Field and archival data was gathered in 1968-1969. More than a ninety percent sample of urban places was obtained with most of the centers being visited by the writer. Personal observation, enummeration, written questionaires and verbal inquiries formed the basis for the collected data.

The direction of the study focuses on the introduction of, and responses to, five basic hypotheses:

- 1) That modern urban places in Ankole are alien to traditional settlement patterns.
- 2) That an embryonic arrangement of urban places dominated by a primate city and characterized by conformity with the rank-size rule for urban places is demonstrated in Ankole.
- 3) That the functions and morphology of Ankole urban

places are the consequence of recent cultural dispersals being introduced to Ankole (and Uganda), via non-traditional inhabitants,

- 4) That the functions performed by Ankole urban places are generally characteristic of functions performed by urban places in other parts of the world.
- 5) That given the level of economic and technological development in contemporary Ankole, a hierarchical system of central places based on functional differences exists in accord with similar theoretical hierarchical systems as described and put forward in the literature.

Investigation of these hypotheses indicate strong support for hypotheses one, three and five while hypotheses two and four merit partial support.

CHAPTER T

INTRODUCTION

The (process of urbanization in tropical Africa is a relatively recent phenomenon. Large compact settlements, customarily identified as towns or cities, are known to have been in existence in the West African savanna and forest regions from at least the ninth and fourteenth centuries respectively. In addition large settlements are known to have existed in northern Ethiopia and along the East African coast from the early centuries of the Christian era. All these settlements exhibited to a greater or lesser degree some activity in or dependence upon commerce. Consequently, the production of surplus commodities for

¹Robert I. Rotberg, A Political History of Tropical Africa, (Harcourt, Brace & World, New York, 1965), chapters 2 and 3.

The West African compact settlements are particularly notable in Nigeria's Yorubaland and Hausaland as well as in the middle Niger drainage basin. The Yoruba settlements have been questioned in terms of their urban characteristics Traditionally they were huge agricultural villages in that the greatest proportion of their populations were engaged in agriculture. It is true that these settlements also supported smaller segments of their populations engaged in other activities such as crafts, trade, military pursuits, and administration, yet it is only in the last few decades that the non-agricultural activities have begun to engage increased proportions of their residents.

Rotberg, op. cit., pp. 30-33.

Gervase Mathew, "The East African Coast Until the Coming of the Portuguese," in <u>History of East Africa</u>, ed. Roland Oliver and Gervase Mathew, (Oxford, London, 1963), pp. 94-127.

trade was in operation and can be closely related to the generation, development, and well being of the early African towns and cities.

Most of tropical Africa, however, never exhibited large compact settlements, towns, or cities that were anything other than agricultural villages. Where agricultural villages occurred, some of considerable size, they functioned almost exclusively as residences for farmers. As a cash economy developed in such areas, various of these villages added new service functions such as education, commerce, transportation, and administration.

Still other portions of tropical Africa, Uganda for example, traditionally exhibited only rurally dispersed farmsteads across the landscape. Until the advent of Great Britain as the political authority, Uganda never knew permanent large settlements engaged in non-rural activities. Some would argue that the royal residence of the local ruling authority had other than a rural function. This is true insofar as the political, military, and social authorities were localized at the royal residence of the Kabaka (king of Buganda) or Omugabe (king of Ankole). The royal residence, however was not a permanent settlement as it was relocated with the death of a Kabaka or Omugabe.

Of considerable interest is the development of a new

⁵Roland Oliver, "Ancient Capital Sites of Ankole," Uganda Journal, Vol. 23, No. 1 (March, 1959), pp. 51-63.

form of settlement, the urban place, which performs new functions in the traditionally subsistence African milieu where such settlements were unknown seventy-five years ago. The geographic, as well as other, literature concerned with tropical Africa is particularly lacking as regards the process of urban growth and the consequent patterns that such growth generates and determines. It is the intention of this dissertation to examine, with regard to pre-stated hypotheses, the processes and patterns of urban place development in a specific geographical area in tropical Africa, the Uganda district of Ankole.

Ankole was chosen as the sample area for study for a variety of reasons, not the least of which is Ankole's convenient location in relation to Makerere University College, a branch of the University of East Africa in Kampala. Makerere University College offered research facilities for study in Ankole that were particularly attractive. More important, however, is the fact that Ankole offers a most suitable situation in terms of its history, geographic setting, and current state of urban and economic development.

Ankole is an area with historic continuity and fair records pertaining to the development of urban places.

More important, until 1898 there were no compact settlements where functions other than rural residence were performed.

In fact, it can easily be argued that there were no compact

settlements at all. Ankole is currently undergoing a transformation in its settlement pattern, a consequence of changes in the general economic structure of Uganda and the district of Ankole.

Ankole was an area where the population was entirely engaged in subsistence agriculture or herding and is now evolving into a situation where a cash economy is well entrenched and an increasing proportion of the population is producing surpluses. The surpluses are sold for cash which in turn stimulates the demand for services of varying kinds. The consequence has been the emergence of market places where such services are regularly or irregularly available. As the cash economy of Ankole has expanded over the past seventy years, so too has the availability and sophistication of services increased. This is partially reflected in the increased number of urban or central places and the increased variety of services that have been established at urban places to meet the needs of an Ankole society that is discarding the traditional subsistence patterns of existence.

Originally the provision of new services was largely in the hands of foreign migrants into Ankole. Europeans, Asians and Ganda civil servants, merchants, teachers, and missionaries were initially responsible for the establishment of administrative posts, shops and other commercial ventures, schools, and mission posts. Consequently, it was

the foreign in-migrants that can be credited with the founding of the first urban places.

However as the Ankole populace increasingly participated in the cash economy, it too began to enter into the field of services and began to locate at or found new central places. Today we find that in Ankole it is the Banyankore population that is dominant in most of the service fields although the capital city of Mbarara continues to exhibit a dominant Asian presence in commerce.

These service centers or central places are the emerging urban centers for Ankole. As such they are foreign and alien to the traditional Ankole landscape. Although they exhibit some of what is traditional in Ankole culture, they are even more a reflection of foreign, specifically British and Indian, cultural introductions. They reflect European ideas of settlement structure, attitudes toward sanitation, and a combination of attitudes regarding rights and license to render services in Ankole.

The emerging urban places of Ankole are numerous enough in 1970 so as to constitute a system of units widely dispersed across the landscape, yet clearly located with regard not only to physical terrain, but also to density of population (potential market). This is as expected. Further examination indicates that the urban places are more intensively concentrated in areas not only of high population density, but also where a cash economy is in

operation as opposed to locales where subsistence activity continues as the dominant mode of livelihood.

Definition of an Urban Place

Of critical importance in any discussion of urbanization and urban places is to examine the terms of reference. The term "urban" has different interpretations in different countries and even within nations. The definition of "urban" can be either statistically or culturally oriented, or both. In most situations a minimum resident population figure is the basic criteria by which a settlement is or is not classified as an urban place. For comparative purposes, Iceland classifies settlements of 300 persons or more as an urban place while the United States requires a settlement to contain 2,500 people to receive an urban place classification. Holland considers 20,000 to be the minimum population before an urban place classification may be designated.

In still other situations a cultural or functional definition is employed when determining urban place status for a settlement. For example, in Italy if 60 percent or more of a settlement's population is non-agricultural, then the settlement is designated an urban place.

The Ankole situation is representative of much of tropical Africa where entire populations were until recently completely rural in terms of residence pattern, life style, and economic activities. The permanent centralized

settlement that performed more than a residential function was rarely known. In such embryonic conditions, as permanent settlements arose to perform functions other than residence, they necessarily assumed the status of central places. It is these central places that have become the foci for urbanization.

The Ankole central place ranges greatly in the number and variety of functions performed, size of population, and frequency of transportation services. Nonetheless, their functional character is so different from all the remaining rural settlements, that I propose to classify as a central place all settlements that exhibit the non-agricultural functions of administrative services or the provision of retail sales and/or services. In addition, other functions such as educational services, religious services, etc. may also be present. An extension of this view argues that central places as the foci for urban growth should be classified as urban for purposes of examining the process of urbanization in Ankole.

More specifically, central places must include at least one commercial or administrative functional unit to be classified as an urban place. The odd school or church standing isolated in the landscape is not viewed here as a basis for meriting an urban place classification. Conversely, the existence of a lone commercial or administrative functional unit is regarded as the minimal criterion

for the site to be classified as an urban place. Thus, four settlements which are exclusively administrative centers and eleven settlements which exhibit only a lone commercial establishment are recognized as urban places. One must adjust his concept of scale and recognize that miniscule settlements may be regarded as urban places so long as they exhibit the minimum urban place functions that therein define a settlement as an urban place.

In the Ankole context this argument may be particularly valid because such settlements do not also function as residences for farmers. The demand for a minimum population level before urban place status is recognized, thus becomes irrelevant. The dramatization of this lack of a population size credential is reflected by the fact that 67 of the 392 settlements designated as urban places are inhabited by populations ranging from three to ten persons.

The Hypotheses

It is the purpose of this research to explore and analyze the following hypotheses.

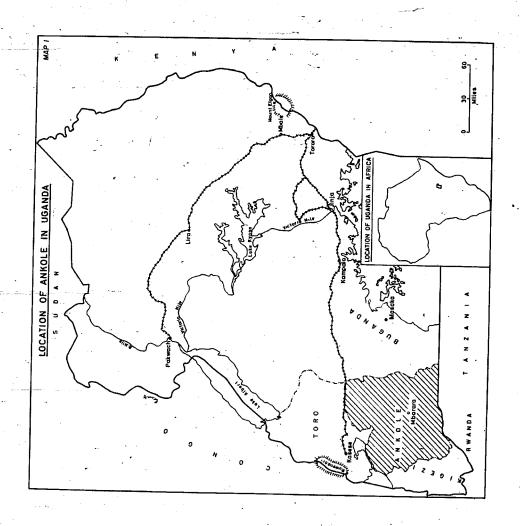
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- 4) That the functions performed by Ankole urban places are generally characteristic of functions performed by urban places in other parts of the world.
- development in contemporary Ankole, that a hierarchical system of central places based on functional differences exists in accord with similar theoretical hierarchical systems as described and put forward in the geographical literature.

MAP 1

Location of Ankole in Uganda

The Ankole District is located in southwestern Uganda. Toro and Kigezi Districts are located to the north and southwest respectively, while Buganda adjoins Ankole's eastern boundary. To the south is the international frontier with Rwanda and Tanzania.



CHAPTER II

ANKOLE: LAND AND PEOPLE

Ankole was but one of a series of former kingdoms aligned along a north-south axis and adjacent to the west-ern rift valley system in East Africa. Conguent to and occupying the same spatial dimension is Ankole District, one of four administrative political units that together form the Western Province of Uganda. By area the district comprises 5,981 square miles, about twenty percent larger than the state of Connecticut. It is this political unit, Ankole District, that comprises the areal unit of study.

Ankole District is the current homeland of the Banyankore, a term applied to all the inhabitants of Ankole who traditionally owed (at least nominally) a common allegiance to the Omugabe, an institutionalized position of royal authority that existed in the former Ankole kingdom. The people however, are derived from two distinct ethnic groups; the Bairu who are Bantu speaking agriculturalists and dominant in numbers, and the later arriving pastoralist Bahima who are of Hamitic origin. 2

¹K. Oberg, "The Kingdom of Ankole in Uganda," in African Political Systems, Eds. M. Fortes and E.E. Evans-Pritchard, (Oxford University Press, Longdon, 1940), pp. 136-38.

²<u>Ibid.</u>, pp. 121-28.

The Bahima pastoralists probably entered Uganda in a series of south-westward migrations before the fourteenth century and eventually succeeded in imposing political and social controls over the Bairu majority.

In contrast to the assimilation and frequent genetic exchange which characterized other closely linked pastoral and agricultural peoples in Uganda (e.g. Buganda, Bunyoro), there was little assimilation in Ankole. Initially the Bahima were attracted to the grasslands of eastern Ankole which provided excellent cattle country and they have since managed to preserve their separate identity as a pastoral aristocracy.

The application of the word Banyankere to these two groups of people is a recent development in response to hostility expressed over the ambiguity of the word Bairu. Bairu literally means or refers to a "serf" position⁵ while more generally it has been applied to the agricultural population as distinct from the Bahima pastoralists. The

³Historical and ethnographic data regarding the Banyankole are concentrated in the following publications: J. Roscoe, The Northern Bantu, (Frank Cass & Co. Ltd., London, 1915); J. Roscoe, The Soul of Central Africa, (Cassel and Co. Ltd., London, 1922); J. Roscoe, The Banyankole, The Second Part of the Mackie Ethnological Expedition to Central Africa, (Cambridge University Press, Cambridge, 1923); and B.K. Taylor, The Western Lacustrine Bantu, (International African Institute, London, 1962).

⁴S.J.K. Baker, "The Population Map of Uganda: A Geographical Interpretation," <u>Uganda Journal</u>, Vol. 1, No. 2 (April 1934), p. 139.

⁵0berg, <u>op. cit.</u>, p. 130.

Bahima have traditionally regarded the Bairu as of very low class or even of a completely different caste. Socially conservative, the Bahima have tended to shun "western" education, have retained the traditional pastoral mode of life as much as possible, and have rejected intermarriage with persons of Bairu origin. Bairu have few objections to such intermarriage. The Bahima have been slow to engage in the newly rising cash economy and this reluctance is partially reflected in the low density of central places exhibited in areas of marked Bahima population.

Nevertheless, and in spite of their separatist attitudes, the Bahima have adopted the language of the original agriculturalists and little if any trace of their original speech survives. In very recent times it is evident that traditional Bahima authority has undergone serious challenge and dilution. The position of Omugabe has been eliminated and all official and semiofficial sanctions of Bahima authority no longer exist.

Evolution of Ankole Kingdom and District

The recently ruling Bahima dynasty of Ankole claimed to trace its origin to the fifteenth century when the pastoralist controlled kingdom of Kaaro-Karungi was

Banyankore, "(Department of Information, Kampala, December 1961), p. 1. (Mimeographed).

^{7&}lt;sub>Ibid</sub>.

established in the south-eastern portion of the modern

Ankole District. Kaaro-Karungi generally corresponded to
the present Saza (province) of Isingiro while other pastoralist kingdoms existed to the north, west and south.

Kaaro-Karungi later came to be known as Nkore of which
Ankole is a European corruption.

In the eighteenth and
nineteenth centuries Nkore expanded its territory at the
expense of its neighbors and by the late nineteenth
century the kingdom included the whole of the eastern half
of modern Ankole District and was periodically suzerain
over the more western kingdoms of Buhweju and Igara.

9

European contact with Nkore was first made by Henry M. Stanley in 1889¹⁰ and in 1891 Lugard concluded a treaty with the Omugabe for protection on behalf of the Imperial British East African Company which was renewed in 1894 on behalf of the British Crown. In 1898 the British established an administrative station at Mbarara to which the Omugabe moved his residence. 12

⁸H.F. Morris, "The Making of Ankole," <u>Uganda Journal</u>, Vol. 21, No. 1 (March 1957), p. 1.

^{9&}lt;sub>Ibid</sub>.

¹⁰Henry M. Stanley, <u>In Darkest Africa</u>, Vol. II, (Charles Scribner's Sons, New York, 1891).

^{11&}lt;sub>F</sub>. Lukyn Williams, "Early Explorers in Ankole,"
Uganda Journal, Vol. 2, No. 3 (January 1934), pp. 197-206

¹² Morris, Loc. cit.

A consequence of Stanley's and Lugard's travels include a diary, ¹³ published recollections, ¹⁴ and journal references ¹⁵ as well as crude maps ¹⁶ that indicate sites inhabited by prominent Ankole residents of the day. This information combined with the geographic data mapped by officers of the MacDonald Expedition of 1897-1898 indicates certain residential sites, probably menyattas or farmsteads that were precursors of contemporary central places (see Map 2). Seventeen such sites eventually became the locales for the indicated central places.

In the following decades, with the support of the British colonial officers, Ankole's borders were extended westward through the implementation of force, terror, deceit and treaty. In 1899 Buhweju and Igara were brought under the Omugabe's direct overlordship. Bunyaruguru was

¹³Starley, loc. cit.; and Margery Perham, Ed., <u>The Diaries of Lord Lugard</u>, Vol. II, (Northwestern University Press, Evanston, 1958).

Vol. II, (William Blackwood and Sons, London, 1893).

¹⁵Williams, <u>loc. cit.</u> Map titled: Ankole District Uganda; sketch map illustrating routes of Stanley, Emin, and Lugard. Map follows page 208.

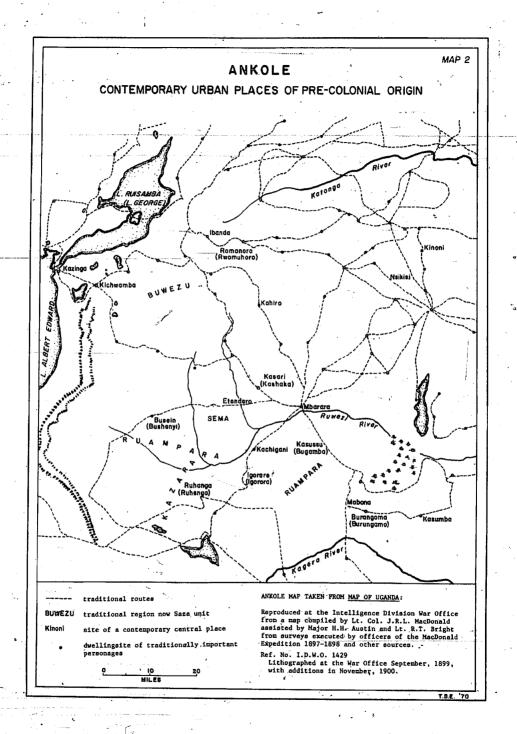
¹⁶ Map of Uganda, Reproduced at the Intelligence Division War Office from a map compiled by Lt. Col. J.R.L. MacDonald assisted by Major H.H. Austin and Lt. R.T. Bright from surveys executed by officers of the MacDonald Expedition 1897-1898 and other sources. Ref No. I.D.W.O. 1429. Lithographed at the War Office in September 1899 with additions in November 1900.

Ankole Contemporary Urban Places Of Pre-Colonial Origin

Sites identified in lower case print represent dwellings of important persons in pre-colonial Ankole as identified by the officers of the MacDonald Expedition of 1897-1898 plus sites identified in the writings and maps of Henry M. Stanley^a and Lord Lugard^b. These sites have since become focal points for the founding of urban places.

Henry M. Stanley, <u>In Darkest Africa</u>, Vol. II, (Charles Scribner's Sons, 1891).

bF.D. Lugard, The Rise of our East African Empire, Vol. II, (William Blackwood and Sons, Edinburgh, 1893).



added a few years later, and in 1914 Kajara Saza was added when the border problems with German East Africa were settled. 17 By submitting to British protection and obtaining British political and military support therefore, the Nkore kingdom was able to expand its rule far beyond the existing borders of 1894.

The Ankole Landscape 18

Both physical and cultural factors have played major roles in effecting the distribution of population and settlements in Ankole. It is essential therefore to consider briefly the general physical differences in environment across Ankole. Ankole District is part of the interior rift valley and plateau country of East Africa. It can be sub-divided into three generalized topographic regions; an eastern low plateau, a western highland belt, and the western rift valley lowland.

Eastern Low Plateau

Known also as the Katonga plateau, the eastern plateau is part of a greater plateau extending across central Uganda. It is characterized by a gently undulating surface

¹⁷Morris. <u>op. cit</u>. p. 14.

¹⁸ The descriptive account is a generalized synthesis of the data as presented by: S.J.K. Baker, "Geographical Background of Western Uganda," <u>Uganda Journal</u>, Vol. 22, No. 1 (March 1958), pp. 1-10; and David N. McMaster, <u>A Susistence Crop Geography of Uganda</u>, (Geographical Publications Limited, Bude, Cornwall, 1962, pp. 2-23.

MAP 3

Ankole Geographical Features

Higher elevations and widespread swampy conditions have played an important role in influencing the location of urban place sites and transportation routes. Note the high density of urban places in western Ankole and the marked absence of urban places in the rift valley and the forest and game reserves.

Road communications (though of varying quality) are widely developed in Ankole while the railway stops at only one station in the district, Kabagole. The railway is the trunk connection between the copper mines at Kilembe in Toro District and Kampala. It is peripheral to the Ankole population and does not serve the densely populated south and west of the Ankole district.

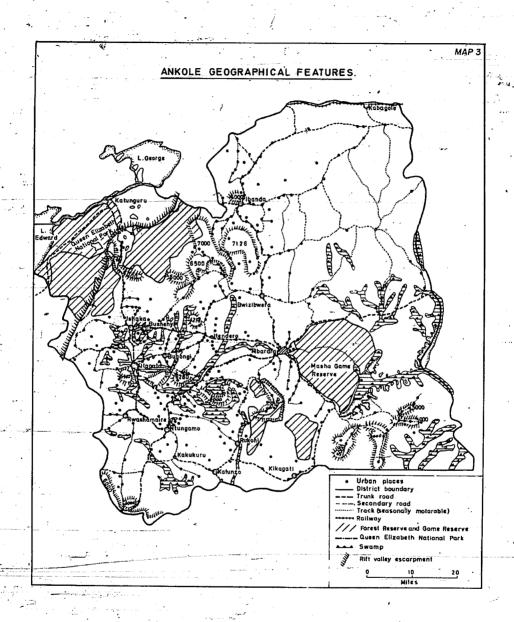
Elevations and swamp locations are based on information taken from:

Copyright Uganda Government, 1963. Edition 2

Uganda: __1:500.000

Printed by the Department of Lands and Surveys, Uganda, 1963.

Many of the urban place sites remain officially unmapped. On this and subsequent maps many of the urban place locations are interpolated according to collected field data.



averaging between 4,000 feet and 5,000 feet in elevation. Precipitation is comparatively modest, usually below forty inches, and the plateau is covered by grassland, acacia and mixed woodland. The lowest elevations are usually poorly drained and seasonal or permanent swamps act as barriers to easy movement.

Western Highlands

This area is a dissected upland generally ranging from 5,000 feet to 7,000 feet. The slopes and valley bottoms are wooded, the ridge crests are grass covered, and the scattered basins are covered by grasslands, acacia and euphorbia bush. Swampy conditions characterize the lowest elevations and particularly the drainage basin of the Ruizi River is dominated by papyrus covered swamp. The swampy conditions have played an important role in determining transport routes and consequently of some urban place sites and situations. Frequently the swamps are the primary source of fresh water for nearby urban places. Bunyaruguru, former volcanic activity is reflected by a number of craters many of which are inundated to form a series of small crater lakes. Precipitation generally increases with elevation so that fifty-five inch averages are common on the middle and upper slopes.

The Western Rift Valley

The western highlands drop off abruptly to the west into the Lake Edward lowland, a part of the fault bounded

trough of the western rift valley system. The lowland is occupied by tse-tse fly infested woodland and two lakes, Edward and George, which are linked by the Kazinga channel. The lowland lies in the rain shadow of the western high-lands and receives an average of thirty to thirty-five inches of precipitation per annum.

Most of the Ankole portion of the rift valley is part of the Queen Elizabeth National Park. Except for a few fishing settlements on the lake shores and the Kazinga channel bridge town (former ferry crossing) of Katunguru, there are no settlements, rural or urban, in this portion of Ankole.

Population

No accurate statistics or even comprehensive descriptions are available for the pre-twentieth century distribution of people in Ankole and therefore it is with caution and difficulty that the subject of population distribution is considered. In 1887 it was reported that the Omugabe was computed to have 200,000 spears at his command. This figure appears without definition. There is no indication of what geographical area could supply this manpower or even if it represented only men of fighting age. If we assume that the 200,000 figure refers to fighting age

Banyankore men then we could assume at least 600,000 as a

¹⁹Williams, <u>op. cit</u>., p. 197. - .

minimal figure for the total population under the authority of or suzerain to the Omugabe. In view of the fact that in 1890 Nkore was no more than half the size of the modern. Ankole District and that in 1948 the census recorded a figure of 400,924 inhabitants for all of Ankole District, the 1877 figure of 200,000 spears seems to be much inflated. Nonetheless, cattle diseases resulting in a dramatic decline in livestock and the food resource base (milk) sharply reduced the Banyankore population in the post-Stanley contact years and perhaps the 600,000 estimate is not far from reality.

What is more apparent, however, is that the distribution of population has been considerably altered in certain parts of Ankole during the period dating from 1890. The current pattern of population and settlement in Ankole can be generally described as one of comparative stability in the western highlands and little changed from the 1890's except for density increases. In contrast, considerable demographic changes have occurred in the eastern lower plateau grassland and woodland country. It seems that two very different forces are most directly responsible for these changes: (a) disease, and (b) foreign influence, direct and indirect, largely European but also Asian (Indian).

The Role of Disease

Southeastern Ankole has long been the traditional

homeland of the pastoral Bahima (particularly the areas currently included in Isingiro and Kashari sazas). The pastures of Isingiro were renowned among the pastoralists and the area was historically known as "Nsharo (the Good Land)". On 1889 the great rinderpest epidemic devastated the Ankole herds in Nsharo. It has been estimated that by 1904, fully two-thirds of the Ankole stock had died. The effect on the Bahima population was catastrophic. The Bahima diet consisted almost entirely of milk and milk products. With the loss of their cows numerous herdsmen and their families faced famine and were forced to migrate in search of friends or kin whose cattle had not been stricken.

The great rinderpest epidemic was followed by widespread outbreaks of smallpox. Already weakened by dietary
hunger, thousands of Bahima and stricken Bairu fell to this
disease. 23 Lt. Mundy, a British officer stationed at
Ankole, estimated that by 1904 the Bahima population had
declined to less than one-third of the pre-rinderpest

J. Ford, "Tsetse Fly in Ankole: A Hima Song," Uganda Journal, Vol. 17, No. 2 (September 1953), pp. 186-88.

H.R. Wallis (compiler), The Handbook of Uganda, (Crown Agents for the Colonies, London, 1913), p. 53.

Harry Johnston, The Uganda Protectorate Volume II, (Hutchinson and Company, London, 1904), p. 626.

²³Wallis, <u>op. cit.</u>, p. 102.

epidemic total. 24

In the years 1908-1910 southeastern Ankole was subjected to the advance of the tsetse fly (G. Morsitans) and trypanosomiasis into Isingiro from Tanganyika. Herds that had begun to recover from rinderpest were again threatened. As the death toll of cattle began to mount the pastoralists moved northward into the drier and less favored land of Nyabushozi and westward into Kashari sazas. By 1930 Nsharo, "The Good Country", was no more. By 1940 most of the area south of the Mbarara road was infested with the fly and by 1957 over one thousand square miles north of the road was considered to be infested. 27 External Influence

In 1898, four years after the British Crown concluded a treaty with the Omugabe, the colonial government opened a civil station at an open site along the Ruizi River where Mbarara stands today. The Omugabe moved his royal kraal to a site nearby and subsequent expansion has led Mbarara to become the primary central place in Ankole District.

Following the establishment of Mbarara, 395 other central

²⁴ Johnston, <u>loc. cit</u>.

²⁵A.G. Robertson, "Tsetse Control in Uganda," The East Africa Geographical Review, No. 1 (April 1963), p. 30.

²⁶ Ford, loc. cit.

^{2?}Robertson, <u>loc. cit</u>.

places have been established within the District boundaries. Collectively, all central places in Ankole account for 21,195²⁸ persons or roughly two and one-half percent (2.56%) of the Ankole population based on 1966 pepulation figures (see Table I). Of this central place resident population, about 93.7% is composed of Africans, 5.4% Asians and .9% Europeans.

External influence has also come to play a role in altering the rural distribution of population and settlements. In 1958 the Uganda colonial government began to develop anti-tsetse fly campaigns. Initially the technique was one of eliminating the game so as to destroy the host of the trypanosome agents. By 1961 it was claimed that the spread of tsetse had been halted in northeast Ankole District and/that new techniques would be implemented to reclaim tsetse infested lands to the south. With funds provided by an American A.I.D. program, spray campaigns involving insecticides were successful in clearing all of the area north of the Mbarara road. The cleared area is now protected by a four mile cleared belt south of the road and it is hoped that eventually all of southern Ankole

 $^{^{28}\}mathrm{From}$ data collected in the field.

²⁹Robertson, op. cit., p. 31.

District will be cleared of tsetse. 30

North of the Mbarara road a large scale commercial ranching scheme designed to extend over 100,000 acres has been introduced into Nyabushozi county on lands reclaimed from the tsetse fly. In 1965, twenty-eight ranches were in operation and it is expected that a total of 125 ranches of about 3,000 acres each will eventually be leased to tenants for forty-nine years. It is hoped that cattle will once again be plentiful on the plains of Nyabushozi county and that Bahima pastoralists will be attracted and motivated to enter into the commercial rearing of livestock. 31

A more recent foreign influence upon the pattern of population distribution in Ankole has been the influx of thousands of Banyaruanda refugees into Uganda from Rwanda. Following recent political and social upheavals in Rwanda, a steady stream of displaced persons has been received by the Uganda government. The initial plan called for giving temporary shelter only. It soon became apparent, however, that more permanent arrangements were necessary. By 1964 there were over 50,000 refugees in Uganda, of which 20,550

³⁰K. Peace, "The Ankole Ranching Scheme," The East Africa Geographical Review, No. 4, (April 1966), p. 62.

^{31&}lt;u>Ibid</u>.

³²D.G.R. Belshaw, "Resettlement Schemes for Rwanda Refugees in Uganda," The East African Geographical Review, No. 1 (April 1963), pp. 46-48.

were in Ankole District-mostly in Isingiro saza.³³ Four-teen thousand Banyaruanda have been permanently settled on four large sites, three designed for agriculturalists and one designed for pastoralists. After an initial failure to establish cooperative farming ventures among the refugees each family was allocated ten acres of farmland. Better established by 1969, the Rwandese have begun to produce some small surpluses. Local central places in the areas of Rwandese settlement are beginning to reflect increased incomes, partly from agricultural wealth, partly from government spending in support of the refugees, and partly from income derived from wages paid to Rwandese males who are employed away from the areas of Rwandese settlement.

Spatial Variation of Population in Ankole District Today

The 1913 Handbook of Uganda suggested that in that year Ankole was inhabited by 266,000 people. 34 This figure could only have been a rough estimate and probably did not include Kajara county which was added to Ankole in 1914. The 1877 reference to 200,000 spears (at least 600,000 total population) being available to the Mugabe assumes a bit of credulity in view of the absolute decline in population that must have followed the rinderpest and smallpox epidemics of the 1890's and the onset of tsetse in 1908-10.

³³ Uganda 1964, Government Printer, Entebbe, 1965, p.36. 34 Wallis, op. cit., p. 146.

The first official census of Ankole District was implemented in 1948 and revealed a total population of 400,924 inhabitants. 35 In 1959 a second census was implemented and a total population of 529,712 was recorded (approximately a 2.5% increase per annum). 36 In 1966 an unofficial census indicated that Ankole's population had increased to 826.230.37

The 1966 census is used here as the basis for discussion of population matters. An analysis of the census reveals some interesting distributional patterns.

³⁵African Population of Uganda Protectorate - Geographical and Tribal Studies, (taken from the East Africa Population Census of 1948), East Africa Statistical Department, Nairobi, December, 1950, p. 3.

East Africa High Commission, Uganda General African Census 1959, East Africa Statistical Department, Nairobi, 1960.

³⁷Ankole Returns from Saza Chiefs File (1966). ADM. 14, Ankole District Administration, Kamukuzi (Mbarara). (Typewritten).

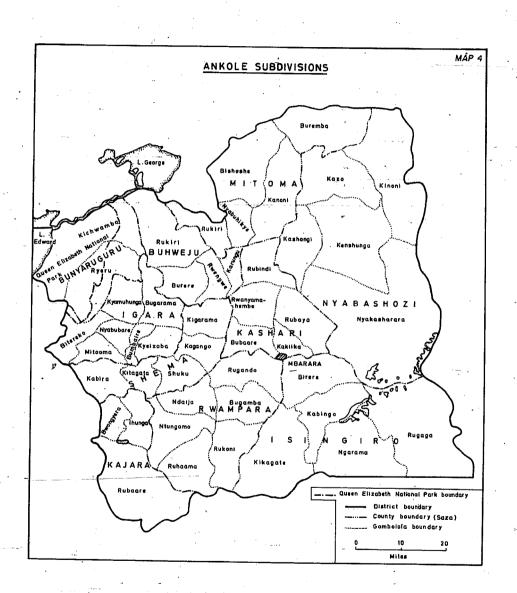
Ankole Subdivisions

The Ankole district is politically subdivided into three levels of administrative units. Ten sazas comprise the highest level of administrative unit. Each saza is subdivided into two or more gombololas of which there are a total of 47 in Ankole.

Gombolola boundaries in Kajara, Rwampara, and Isingiro sazas were altered in 1967-68 so that this map represents the contemporary pattern of gombolola units.

Each gombolola is further subdivided into mrukas.

While mrukas form the third tier of administrative units, there are at present no maps available that depict the location of mruka boundaries. Mrukas are not represented on Map 4.



Ankole Population Density by Gombolola, 1966

Population densities are based on saza chiefs census returns for the year 1966.

Note the high densities of population in western Ankole. A comparison of Map 5 and Map 3 will reveal a close relationship between density of population and density of urban places.

Ankole District Administration, Annual Returns from Saza Chiefs' File, 1966.

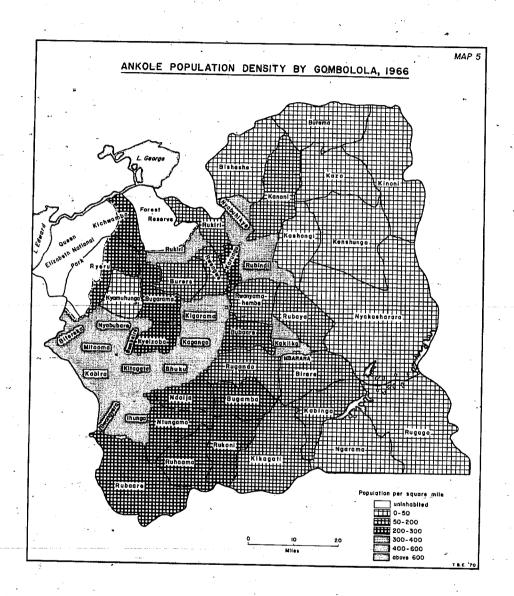


TABLE I

•	ANKOLE	POPULATION	INFORMATION		a
SAZA	GOMBOLOLA	1966 POP.	SQUARE MILES	DENSITY OF POPULATION	% URBAN (RESIDENT IN URBAN PLACES)
Mitoma	Kanoni	14,812	152	98	2.4
	Rukiri	12,120	77 e	157	1.8
٠	Nyabuhikye	16,103	47	342	4.6
	Buremba	2,825	176	/ 16 ····	1.6
	Bisheshe	24,292	216	29	1.6
Buhwe ju	Rwengwe	4,722	44	107	3.8
	Burere	5,124	73	70	.5
	Karungu	9,898	46	215	1.4
•	Rukiri	5,514	185	112	2.0
Igara	Bumbeire	23,840	23	1,036	2.7
	Mitooma	26,997	51	5 2 9	1.7
	Nyabubare	26,851	38	706	1.7
· · · · · · · · · · · · · · · · · · ·	Keizoba	16,097	56	287	1.8
	Bitereko	19,243	5 <u>9</u>	326	1.1
	Bugarama	19,825	86	230	.9
*	Kyamuhunga	22,704	59	384	1.9
Isingiro	Kabingo	9,419	109	86	2.9
**	Birere	21,866	137	159	2.3
	Kikagati	16,964	236	71	2.1
	Ngarama	9,963	239	41	4.0
₫	Rugaga	9,588	296	32	4.8
Shema	Kagango	22,621	50	452	2.4
	Kigarama	27,658	82	337	1.7
•	Kitigata	19,139	. 51	375	1.7
	Shuku	21,220	63	336	1.6
	Kabira	27,473	74	371	1.0
Ka jara	Ihunga	28,852	59.	489	1.9
ing the second s	Rubaare	49,496	244	202	.9

	, 1	ABLE I (CON	T'D)	•	
SAZA	GOMBOLOLA	1966 POP.	SQUARE MILES	DENSITY OF POPULATION	% URBAN ^a (RESIDENT IN URBAN PLACES)
. "	Bwongyera	29,335	- 52	564	.8
Rwampara	Ndai ja	24,637	91	270	1.9
	Ntungamo	24,571	112	219	1.3
7.	Ruhama	21,270	84	253	2.6
	Bugamba	22,055	75	294	1.8
	Rukoni	24,679	121	203	1.4
	Rugando	21,136	125	. 169	2.5
Kashari	Kakiika*	21,476	64	335 ⁻	30.8
	Bubaare	5,913	72	82	1.9
	Rubaya	8,319	138	60	1.1
	Rubindi	34,517	100	345	.8
	Rwanyamahemb	e10,070	68	148	2.6
Bunyaruguru	Ryeru	17,660	133	132	1.3
	Kichwamba	12,715	244	52 •	2.9
Nyabashozi	Nyakasharara	10,450	600	17	.4
	Kashongi	5,499	129	, 42	1.9
	Kazo	5,878	216	27	1.7
т.	Kinoni	7,243	250	28	2.8 ·
	Kenshunga	3,581	279	12	3.9

*Includes Mbarara Township

ANKOLE TOTAL

5,981

138

2.56

826,225

Persons resident in urban places were determined in the field by on site counts, personal communication with local residents and averages of sample data applied to settlements where actual counts were impossible.

Population is heavily concentrated and densities are highest in the western highlands of Shema, Igara, Kajara, Rwampara, and Bunyaruguru sazas with a nodal concentration around Mbarara township. Sparsity of population characterizes eastern Ankole District, particularly the eastern plateau lands of Nyabushozi, Isingiro, and eastern Mitoma sazas. In addition, the northwestern portion of Ankole District, particularly the rift valley region of Bunyaruguru and Buwheju sazas, are very sparsely populated (see Map 5).

These spatial variations in population are partially explained by the former presence of the rinderpest and smallpox epidemics and the past and present infestations of tsetse in eastern Ankole. The effects of these diseases were most dramatically inflicted upon the Bahima pastoralist population which traditionally was most numerous in eastern Ankole District. Furthermore, subsistence farmers and agricultural activity are limited by the comparatively modest annual precipitation (usually less than thirty-five inches) and its unreliable and torrential nature.

Nyabushozi saza, the largest in Ankole District, has only 32,651 inhabitants or 22.2 per square mile. Isingiro has 67,800 inhabitants and a density of 66.6 per square mile while Mitoma records 70,152 and 105.1 per square mile (mostly concentrated in the uplands of western Mitoma saza).

The rift valley lands of northwest Ankole have

relatively few Bahima residents. In 1933, when suggesting Bahima-Bairu ratios, the District Commissioner recorded no appreciable numbers of Bahima in Bunyaruguru and Buhweju sazas. Again the presence of tsetse (G. pallidipes and G. fuscipleuris) is a major factor limiting pastoral activity. Apparently, Bahima people have never herded in nor inhabited the northwesternmost reaches of Ankole District.

In addition, the rift valley area experiences a dual rain shadow effect from the western highlands of Ankole to the east and from the mountains of eastern Congo to the west. Precipitation averages less than thirty-five inches per annum and is generally unreliable. Furthermore, the greater portion of land area in Bunyaruguru saza and a considerable amount of acreage in Buhweju saza is given over to government controlled forest reserves and the Queen Elizabeth National Park. Both the forest reserves and national park lack permanent agricultural residents and the only central places that exist are fishing villages. Bunyaruguru saza has 30,375 inhabitants. This population is heavily concentrated in the uplands of eastern Bunyaruguru where densities average over 270 per square mile. Buhweju with 25,258 inhabitants has an average density of 57 per square mile but like Bunyaruguru saza the

³⁸ Baker, Geographical Background of Western Uganda, op. cit., pp. 1-10.

concentrations are highest in the uplands in the southern part of the saza where densities exceed 170 per square mile.

The great majority of Ankole's population is concentrated in the western highlands of Shema, Igara, Kajara, Rwampara and Kashari sazas. Conditions for agricultural activity in Ankole District are best in the highland areas, particularly on the lower slopes and non-inundated basins. In the highlands precipitation reaches maximum amounts (50-55 inches per annum), tsetse is rare, and some of the better soils in all of Ankole are to be found in the southwestern portion of the highland zone.

In addition to the inequitable distribution of population in Ankole District, there is a marked population imbalance between the sexes. Females exceed males by almost 40,000 persons. Closer scrutiny reveals possible migration trends. The male-female ratio for Banyankore below sixteen years of age is fairly even. For adults (above sixteen years of age), however, the female population exceeds that of males in every saza but Bunyaruguru and in almost every census district in Ankole.

This demographic imbalance by sex partly reflects an unexplained natural dominance of female numbers in the above sixteen age bracket (statistics are unavailable on matters of life expectancy by sex or mortality rate by sex). The

³⁹East African High Commission. Uganda African General Census 1959. Loc. cit.

imbalance, however, also reflects the number of Banyankore men who have migrated beyond Ankole's borders in search of better economic opportunities. The 1959 census recorded 114,350 Banyankore outside Ankole District (88,000 in Buganda District alone) of which 63,200 were males and 49,000 were females. This high figure of Ankole migrants is significant in that a considerable proportion of their earnings are returned to Ankole and spent, at least partially, in support of the central places in their local home areas. Also, a provocative question with no apparent answer is; do these earnings returned from wage employment outside of Ankole find their way into investments in central places?

CHAPTER III

ANKOLE URBAN PLACES

Traditional Settlement in Ankole and the Absence of Urban Places1

Towards the end of the nineteenth century when the first European entry to Ankole occurred, the existing settlement pattern reflected the evolution of the Bairu-Bahima plural society and its accommodation to the existing resources available.

Prior to the European and Asian entry to Ankole (pre-1898), the resident population was entirely engaged in subsistence agriculture and/or herding. Hima herdsmen were

Discussion of traditional settlement and economic patterns is based on descriptive information from the following publications:

J. Roscoe, The Northern Bantu, (Frank Cass and Company, Ltd., London, $19\overline{15}$), pp. 101-131.

J. Roscoe, <u>The Soul of Central Africa</u>, (Cassell and Company, Ltd., London, 1922), pp. 58-59.

Mackie Ethnological Expedition to Central Africa, (Cambridge University Press, Cambridge, 1923).

W.L.S. Macintosh, Some Notes on the Abahima and the Cattle Industry of Ankole, (Government Printer, Entebbe, 1938).

Margaret Trowell and K.P. Wachsmann, <u>Tribal Crafts of Uganda</u>, (Oxford, London, 1953).

Samwiri Karugire, "Relations Between the Bairu and Bahima in Nineteenth Century Nkore," <u>Tarikh</u>, Vol. 3 No. 2 (1970), pp. 22-33.

dominant in numbers and existed as subsistence cultivators while practicing various domestic crafts at the farmstead.

The settlements of these peoples took varying forms and often served as the sites where residents performed most of the service functions that were required. In Ankole, the traditional form of settlement was the dispersed farmstead or menyatta. The farmstead served as the residence for the Bairu family unit, usually a somewhat extended family that might include grandparents and grand-children.

The settlement type of the Bairu farmstead could be characterized as a beehive shaped dwelling with a circular floor plan. Branches were joined so as to form a framework to be covered by grass thatch. The farmstead had few structures beyond the few dwellings. The homesites were located on land that was being cultivated and consequently individual farmsteads were dispersed across the landscape on the individual farms where cultivation occurred. Traditionally, millet and sweet potatoes were the dominant items of the diet and were cultivated under a pattern of long term fallowing of exhausted land. The recent introduction of plantains and their widespread acceptance has led to a partial stabilization of the farmstead.

The family's economic activities centered around the farmstead and supplied as much of the family's material goods and services as were required. It was largely a

subsistence pattern of economy though certain items were bartered for specialized items unavailable at the farmstead. Blacksmiths and potters were not present in every family unit and salt was an item of trade originating from Lake Katwe in the rift valley north of Lake Edward. A local group of Bairu men would form a caravan party and with bartering goods in hand would sojourn to Lake Katwe to obtain their salt needs for the immediate future.²

Some Bairu, in their attached relationship with certain Bahima folk, functioned as keepers of their Bahima overlord's goats and sheep, builders, artisans, smiths, and potters. The Bahima pastoralists depended almost entirely upon the Bairu for weapons, tools, utensils and even for milk vessels and water pots.

The Bahima population tended to reside in menyattas, settlements surrounded by thornbush fencing. The menyatta fences enclosed beehive shaped dwellings with thatched roofs supported by walls of small timbers (branches) and were sometimes plastered with clay. The dwellings were usually compartmentalized by reed walls into two or three small rooms; one for the parents, one for the girls to which the entrance was accessible only through the parents room, and a main storage room in which the unmarried men and boys slept. The menyatta was largely a family unit that

²Charles M. Good, <u>Rural Markets and Trade in East Africa</u>, (Department of Geography Research Paper No. 128, University of Chicago, Chicago 1970), pp. 154-158.

frequently moved as herdsmen sought new pasture and water supplies. Bahima menyattas could occasionally achieve considerable size, particularly in lion country where a large menyatta might be a residence for some two hundred men, their wives and children. Here, the menyatta would probably include non-family members. Specifically, poorer men with few cattle or the poorest of men with no cattle would become attached to the large menyattas. In return for service they would thus be assured of adequate food supplies.

When away from their menyattas, Bahima herdsmen erected very temporary kraals. Crude shelters were built to screen herdsmen from dew and rain while thornbush was laid between the shelters to form a circular kraal in which the cattle could be sheltered at night.

Menyattas were often shifted, but usually only a short distance from the former site. The tendency to remain near the former site was, at least partially, the consequence of the pastoralist living in an almost symbiotic relationship with Bairu sedentary cultivators. Each Bahima cattle owner had a number of Bairu retainers attached to him. When he moved he took "his" Bairu with him or assumed control over a new Bairu group by agreement.

The Bahima family maintained its own division of labor and provided some of its own basic materials and services. In contrast to the more self-sufficient Bairu cultivators,

the Bahima partially depended on Bairu farmers and craftsmen for various goods and services.

Surplus production on the part of the Bahima was extremely limited. Cattle were wealth and at the same time the basic source of food. They were rarely slaughtered save on ceremonial occasions. Though the largest of the Bahima menyattas might include hundreds of people, the menyattas in no way functioned as a central place for the provision of sales or services for a surrounding rural population. Whatever services and exchanges occurred were part of the local subsistence activity of the menyatta. There was no need for a regular daily market place where items or services would be offered to a surrounding rural populace.

The most permanent and largest settlement to exist in Ankole in pre-colonial times was the Royal Kraal. A non-permanent settlement, the Royal Kraal functioned as the political focus of the Omugabe's kingdom. Ankole history records the continuous shifting of the royal kraal with the death of one Omugabe and the establishment of a new royal kraal site upon the accession of a succeeding Omugabe. Over the centuries the royal kraal had been shifted over

³H.F. Morris, "Historic Sites in Ankole," <u>Uganda</u>
<u>Journal</u>, Vol. 20, No. 2 (September 1956), pp. 177-181;
Roland Oliver, "Ancient Capital Sites of Ankole," <u>Uganda</u>
<u>Journal</u>, Vol. 23, No. 1 (March 1959), pp. 51-63; and M.
Posnansky, "The Excavation of an Ankole Capital Site at
Bweyorere," <u>Uganda Journal</u>, Vol. 32 No. 2 (1968),
pp. 165-182.

the grassy and wooded plains of Isingiro and Kashari with the pattern of royal kraal sites reflecting a gradual northward movement from Isingiro saza toward Nyabushozi and Kashari sazas.

In the late 1890's the royal kraal was located in southern Kashari. The royal kraal site was chosen for its nearness to good pasture and permanent water supply, and was enclosed by large trees with earth works heaped up between the trees. The wealthier Bahima (as defined by number of cattle owned) located their kraals near that of the Omugabe. Oliver argues that the Omugabe's settlement was more than a kraal. Rather it could be viewed as a town intended to last for a decade and often for an entire reign. Posnansky disagrees.

The royal kraal alone functioned as a central place in the sense that it offered the administrative function of political decision making. Tribute, consisting of livestock, salt and various Bairu craft products, was collected widely in Ankole for delivery to the Omugabe's kraal site. The tribute, however, was not redistributed. There is no evidence, therefore, that the royal kraal site functioned as a center for the provision of sales or services. The royal cattle herds were the largest in Ankole and

⁴Morris, <u>loc. cit</u>.

⁵Oliver, <u>op. cit</u>., p. 62.

⁶Posnansky, <u>loc. cit</u>.

consequently dairy produce was usually copious. Apparently, dairy production was large enough to support the
existence of a smallish court as the leading nobility of
the Ankole realm and their retainers were often present at
the royal kraal site as were various servants to the *
Omugabe.

In summary, prior to 1898, Ankole was populated by farmers and herders residing in farmsteads and/or menyattas dispersed across the landscape. The economy was everywhere subsistence in character and there were neither regular or irregular markets or central place sites that operated to provide sales or services.

The Emergence of Urban Places

It was into this wide ranging subsistence economy that the British colonial authorities and Asian merchants made their appearance in the 1890's. A center for European administration and Asian commerce was established in 1898 under the leadership of a British officer, R.J.D. Macallister, at the site of modern Mbarara. This site was chosen ostensibly because it was near to the then existing site of the royal kraal as well as adjacent to a permanent source of water, the Ruizi River.

It was Mbarara, therefore, that emerged as the first settlement in Ankole to perform functions other than that

⁷Morris, "The Making of Ankole," op. cit. p. 11.

as a residence for subsistence farmers or herders. settlement immediately took on the functions of administra tion. military security, wholesale and retail trade. religion and education. Wholesale and retail trade was entirely in the hands of the Asian merchants that accompanied the British officers and their troops. Initially the merchants were interested in buying (bartering for) surplus commodities. These were usually limited to hides, skins and ivory. In exchange the Asian merchants introduced the wide range of European and Indian manufactured goods including cloth, weapons (mainly knives), beads, other glassware, utensils, etc. This pattern of Asian control over wholesaling and retailing has continued in Ankole until recent times. Though still dominant in a few locations (particularly in Mbarara and Bushenyi) and in regard to certain commercial commodities, the Asian role in retail trade and wholesale buying has declined considerably in the past decade.

Growth Beyond Mbarara

The early establishment of Asians away from Mbarara was closely linked to the founding of outlying administrative stations on the part of the Ankole government.

Beginning in the first decade of the twentieth century, the Ankole government under British guidance began to establish Saza capitals or headquarters staffed by imported chiefs from Buganda. The Saza capital site then became the

recognized focus of government, an administrative extension of Mbarara. As such it maintained a measure of respect and sanctity. It was to the site of the Saza headquarters that the new religious and commercial functions were attracted and became established.

The religious and educational functions were consolidated under the church. As the various religious groups established their churches and missions, first at Mbarara and later in more distant locations, these functions came to be very widespread. The earliest missions were commonly, though not necessarily, located near an administrative center. Throughout Ankole wherever a religious-educational unit has been established, a commercial establishment is nearby. In fact, the general shop religious-educational triad seems to be the common functional basis for most urban places in Ankole.

At first all non-African traders (usually Asians) established and operated their retail-wholesale units under government issued "Temporary Occupation Licenses." The general policy of the government was to encourage the concentration of trading units at specific sites that were on "Mailo" or Crown lands so as to minimize potential conflict with indigenous inhabitants.

^{8&}quot;Permanent Trading Centers in Ankole Other than Mbarara," File No. 10/3, 6/2/30 to 30/4/47. Ankole archives, Mbarara.

⁹Mailo land refers to units (cont'd on following page)

Mining and the Development of Urban Places in Ankole By the late 1920's in southern Ankole, urban places were also being established in part to serve mining developments that were underway in the latter part of the third decade. Cassiterite (a source of tin) was discovered in 1925 four miles from the current town of Kikagati of the same Gombolola. 10 In 1926 more tin was found at Mwirasandu and numerous prospectors including European mining engineers and African laborers were operating in southern Ankole. Even through the years of the depression while other urban places experienced a decline in activity, the Ankole tin mines were worked and portions of received wages found their way into the shops of the recently established urban places of Kikagati, Mwirasandu, Rwentobo and Ntungamo. Since the 1930's, the mining of tin in Ankole has experienced marked fluctuations in production depending on world price levels at the moment. The rise or decline in tin

Gold mining has also contributed to the establishment

prices has also been felt by the merchants of the urban

places in the tin mining areas.

⁹of land, usually a square mile (thus the corruption to "mailo") in size that the government granted to Ugandans as personal property. Mailo land was usually granted to appointed chiefs (usually Waganda) as they were established in Saza and Gombolola chieftaincies.

¹⁰A.L. Job, "Mining in Uganda," <u>Uganda Journal</u>, Vol. 31, No. 1 (1967), pp. 43-61.

and support of urban places in Buhweju saza and adjacent portions of Mitoma saza. Beginning in the mid-1930's gold mining in the hills of Buhweju pumped considerable amounts of cash into the local economy. In 1937 alone there were 5,468 Africans and 56 Europeans working the gold deposits of Buhweju. Ankole has contributed sixty-eight percent of all the gold that has been extracted from Uganda and both Butare and Ibanda are urban places that received economic support from the Buhweju gold mining activity in the late 1930's.

Establishment of Gazetted Trading Centers

In the late 1920's and early 1930's the Uganda government attempted to standardize certain aspects of commerce. One such development was the establishment of the Trading Centre Ordinance of 1933. Among its component parts was the provision that all non-African traders must be licensed and could only operate in an officially gazetted trading center. Within the trading centers, leases were to be granted on surveyed plots and minimal construction standards had to be met by non-African traders.

Prior to 1934 eleven urban places had been established (in addition to Mbarara) in Ankole where non-Africans engaged in commerce. In addition, six urban places had been established where commerce was largely in African

¹¹ Ibid.

TABLE II

NON-AFRICAN ORIENTED URBAN PLACES PRIOR TO 1934

NAME OF URBAN PLACE	GOMBOLOLA	APPROXIMATE DATE OF ESTABLISHMENT
Kinoni	Rugando	Early 1920's
Bushenyi	Bumbeire	Early 1920's
Rwashamaire	Ihunga	Early 1920's
Ibanda	Nyabuhikye	Early 1920's
Ntungamo	Ncungamo	1923
Kibingo (Kabowhe)	Kagango	1926
Ndeke	Ryeru	1928
Kikagati	Kikagati	Late 1920's (1929 ?)
Mwirasandu	Kikagati	Late 1920's (1928 ?)
Rwentobo	Rubaare	Late 1920's (1929 ?)

AFRICAN ORIENTED URBAN PLACES PRIOR TO 1934

Butare _	Kyamuhunga	1926
Byanamira	Kashongi	1930
Kazo	Kazo	1932
Bwizibwera	Rwanyamahembe	1932
Ishaka	Nyabubare	1933 or 1934
Nyakafunjo	Rugando	1933
		4:3

hands. (See Table II)

The establishment of these early urban places was the consequence of a general increase in production of surpluses and the introduction of cash into the local economy by governmental, religious, mining and wholesale agents.

It became sufficiently profitable for Asian merchants to move out of Mbarara and found permanent shops and businesses where the new economic developments were occurring.

Sufficient notice had been given to traders outside the officially gazetted trading centers and in 1934 eleven gazetted trading centers were officially established. The new ordinance proved no great hardship to the non-African trader since nine of the eleven sites designated as gazetted trading centers were already operating with non-African merchants. In two cases the sites of the newly gazetted trading centers were relocated (Bushenyi and Kikagati) in later years. Mwirasandu was abandoned and disappeared from the pattern of urban places and two new sites, Gayaza and Sanga, were created as gazetted trading centers. Gayaza was not really settled however until 1949 and Sanga still remains unsettled.

Subsequently four other gazetted trading centers have been established. They are: Kafunzo 1937, Butare in Rwengwe Gombolola 1938, Rutoma 1939 and Kiburara in 1962. The pattern of restricting non-African merchants to gazetted trading centers has been regularly enforced as

when in 1935-1936 an Asian merchant was denied a trading license to operate at Rubaare, a non-gazetted trading center. 12

Urban Place Variations

The earliest founded urban places in Ankole were established to serve administrative, religious-educational and commercial functions. At some settlements two or all of these functions may be in existence. A marked dichotomy however exists between urban places that are Gazetted and those that are non-Gazetted.

Gazetted urban places are sites where non-Africans may legally reside and participate in various economic activities. Most non-Africans in Ankole are Asians and since they are concentrated in the gazetted centers, these settlements may be recognized or identified as "Asian oriented urban places."

Asian oriented urban places may be contrasted with the non-gazetted urban places which are populated entirely by Africans. Such settlements may be recognized or identified as "African oriented urban places."

The Asian Oriented Urban Place in Ankole-

The early gazetted trading centers and the urban places that they have evolved into should be distinguished from all the other central places that have arisen in

^{12&}quot;Permanent Trading Centres in Ankole Other than Mbarara," Ankole Archives, <u>loc. cit</u>.

Ankole. They are different in terms of origin, ethnic composition, quality and character of building architecture, and most recently in terms of wholesale functions.

In terms of origin, these centers are distinguished in that they were and remain legally gazetted as the only sites in Ankole where non-Africans may engage in the retailing and wholesaling of goods and services. These centers exist along with Mbarara as the only sites where non-Africans may make a permanent residence and in every way consider the particular urban place as their home.

As a consequence of this restriction on residential location, these centers are characterized by their substantial non-African (dominantly Asian) population. The Asian population has traditionally dominated the retail and wholesale trade within these urban places, as reflected in general retail shop proprietry, although this pattern is beginning to change. This commercial dominance is reflected in Table III.

Not only is the Asian presence a dominant one in these urban places, but the character of their shops and dwellings further distinguish them. In all cases the Asian shops are larger and have more permanent and stronger materials as a basis for construction when compared with the characteristic African general retail shop. Building materials for the Asian shops are always of cinder or concrete block with the structure standing on a concrete

ASIAN	ORIENTED	URBAN	PLACES	IN	ANKOLE?

		7)				
URBAN PLACE	APPROXIMATE ASIAN POPULATION	APPROXIMATE AFRICAN POPULATION	TOTAL GENERAL RETAIL SHOPS	TOTAL ASIAN GENERAL RETAIL SHOPS	TOTAL AFRICAN GENERAL RETAIL SHOPS	% OF GENERAL RETAIL SHOPS UNDER ASIAN OWNERSHIP
Bushenyi	98	29 8	23	18	5	79
Kikagati	15	132	8	3	5 .	37
Butare (Kashenyi)	5	53	4	1	3	, 25 °
Ndekye	5	23	1	1	0	100
Kafunzo	20	32	4	4	0	100
Ntungamo	47	58	10	9	1	90
Kinoni	15	22	3	3	0	100
Rutoma	15	38	3	3	. 0	100
Rwentobo	30	25	4	3	1	75
Rwashamaire	15	200.	9	3	6	33
Kiburara	4	25	4	1	3	25
Ibanda	2 5	146	9	5	. 4	55
Gayaza	· o	51	1	0	1 :	0 (Asian
	•	• •		-		merchants have withdrawn)
Kibingo (Kabowhe)	8	50	4	, 2	2	50
TOTAL	292	1,153		52	31	61.9
*Source: Personal	data collected	in the field				

slab foundation. Furthermore, invariably there is an overhang supported by pillars in front which creates a shady
veranda on which tailors, shoe repair or bicycle repair
men may ply their trades. Commonly the proprietor of the
shop resides in the rear of the unit in a semi-detached or
attached dwelling and may maintain a walled-enclosure for a
garden or other personal uses. Throughout the urban places
of Ankole, this style of shop and residence unit is
limited to sites of Asian occupation with the exception
occurring where a former Asian proprietor has vacated the
premises and it is now operated by an African merchant.

As the African populace has increasingly entered the cash economy of Ankole, increasing numbers of Africans have entered into the business of retail sales and services. These African merchants and businessmen operate at both the periodic markets that are held in Ankole and from the permanent shops located in the 392 urban places of Ankole. As most urban places in Ankole have been established in the post World War II years (See Figure 1), they now provide the common commercial services and retail sales to the rural populace.

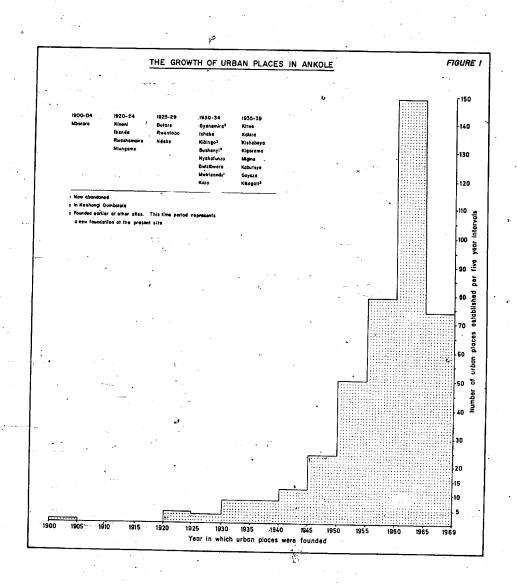
In the past decade Asian profits from general retail trade outside of Mbarara have seriously declined. The increased number of African merchants, both at periodic markets and urban places, have been accounting for a steadily increasing share of the general consumer goods

market. As might be expected, there has been a corresponding decline in the volume of such trade that is effected by Asian merchants. As a consequence, Asian merchants are increasingly concentrating their efforts toward wholesale trade (distribution of consumer goods to the numerous African merchants as well as buying produce; coffee, groundnuts, hides). Asian merchants may still be the retail source of selected commodities that are not in ubiquitous general demand or require a considerable investment in an inventory (building materials, iron ware, bicycles, etc.). In general, however, outside of Mbarara the participation of the Asian merchant and therefore the Asian oriented urban place in commercial retail trade is in marked decline.

Growth of African Oriented Urban Places

The recent rapid expansion in the number of Ankole urban places is wholly a result of the rapid entry of Africans into the Ankole commercial sector. As noted earlier, excluding Mbarara, Asian participation in the provision of retail sales and services has declined. The consequence of African entry and Asian decline into retail sales and services is reflected in absolute figures in terms of urban places and retail units.

In 1968, out of 396 urban places in Ankole, 383 or 96 percent were entirely populated by Africans. Excluding Mbarara, Africans operated 96.3% of the establishments that



provided general retail sales and over 99 percent of the retail service units.

The African entry into the retail sales and services sector as reflected in the establishment of urban places generally developed subsequent to the founding of Asian oriented urban places. Table II indicates that six African oriented urban places pre-dated the establishment of gazetted trading centers. An additional nineteen African oriented urban places were founded by the end of World War II (See Table IV).

Apparently Butare 13 in Kyamuhunga gombolola was the site where Africans first began to provide retail sales on a permanent basis. Byamamira in Kashongi gombolola was established four years later. Neither of these early settlements have emerged as major urban places.

Kazo, Bwizibwera, and Ishaka were officially established as urban places in the early 1930's. Certain evidence suggests that services may have been established at Kazo as early as 1928¹⁴ although governmental recognition of Kazo as a trading center did not occur until 1932.

¹³In the cases of Butare and Byanamire, the early dates for their establishment were obtained from presumed local authorities. They may very well have been founded at later dates.

¹⁴A personal reference who claimed long residency at Kazo emphatically stated that the first shops at Kazo were erected in 1928.

TABLE IV

PRE-WORLD WAR II AFRICAN ORIENTED URBAN PLACES .

	URBAN PLACE	GOMBOLOLA	APPROXIMATE DATE	APPROXIMATE POPULATION IN 1968
	Kishabaya	Shuku	1936	87
- 1	Kakira	Kyamuhunga	1937	16
1	Kanoni	Kanoni	1938	58
1	Migina	Kigarama	1938	26
1	Kigarama	Kigarama	1938	58
1	Kitwe	Rukoni	1938	65
*1	Kabutsye	Kigarama	1939	46
1	Mashonga	Kyamuhunga	1940	71
Ŧ	Bugamba	Bugamba	1940	70
ŀ	Katunguru .	Kanoni	1942	40
F	(ihani	Kanoni	1942	48
K	(emuchera	Kagango	1942	93
K	Kitigata	Kitigata	1942	185
N	lyakihanga	Ndai ja	1942	. 15
N	ldai ja	Ndai ja	1942	77
В	yanamira	Bugamba	1942	23
K	yamuhunga	Kyamuhunga	1943	93
N	akabarizi	Bumbeire	1945	25
В	isya	Kinoni	1945	3

Ishaka and Bwizibwera are located at crossroad situations along major routes in Ankole and have grown to be among the largest and most important urban places in the District.

An additional nineteen African oriented urban places were founded by the end of World War II (See Table IV).

Six of these settlements were established as gombolola capitals while the others were centers-for commerce.

The information presented in Tables III and IV suggest that an early foundation would be a poor indicator as to the potential growth of an urban place. Of the twenty-four African oriented urban places founded prior to 1946, only three have grown to maintain populations in excess of one hundred persons. In fact Table V indicates that even recently founded urban places in Ankole have attained a relatively large size.

Six of these comparatively large urban places require special discussion. Muti (#1), Muti (#2) and Rwebikona are in fact little more than suburbs of Mbarara and should probably be considered as part of Greater Mbarara when discussing functional relationships and position in a hierarchical arrangement of Ankole urban places. Both Kashojo and Kashaka are fishing communities where the population fluctuates during the year depending on the availability of fish. These figures represent averages between populations present at the height and ebb of the fishing season. Kigaragara is in fact a dispersed farm

TARLE V

POST 1961 ANKOLE URBAN PLACES IN EXCESS OF 69 PERSONS.

URBAN PLACE	GOMBOLOLA	DATE	APPROXIMATE POPULATION IN 1968
Muti (#2)	Kakiika	1965	773
Mut1 (#1)	Kakiika	1961	470
Kigaragara	Ngarama	1963	200
Kagongo	Nyabuhikye	1964	200
Kasheshero	Mitooma	1961	166
Mitooma	Mitooma	1961	145
Rwebikona	Kakiika	1967 -	129
Kashojo	Rugaga	1965	119
Ruhama	Ruhama	1961	95
Bugarama	Bugarama	1966	93
Kashaka	Kichwamba	1966	70
	4.		

settlement though with various services offered throughout. Only a small proportion of the total population however is engaged in the provision of sales or services.

Urbanization and Urbanism

Urbanization, the increase in the proportion of a population that resides in an urban place, is in its early stages in Ankole. In fact, in all of Uganda the official estimates indicate that only about five percent of the total population resides in urban places. In Ankole the proportion of urban to rural residents is still lower. Variations in Urban Place Size and Distribution

By any standard the process and rate of urbanization of the Ankole population is in its infancy. Although the first urban place was established in 1898, the subsequent growth of other urban places was slow and it was not until the post World War II period that the great majority of contemporary urban places was founded. (See Figure 1)

Figures in Table I indicate the percentage of urban dwellers by gombolola (the smallest political unit of Ankole for which statistics, are available). What is striking is the very low level of urbanization in spite of the minimal requirements to be met for a settlement to be classified as an urban place. Only one gombolola, Kakiika, records an urban percentage in excess of five percent. Kakiika, with thirty percent of its population classified as urban, includes Mbarara and also has much of the

spillover population from Mbarara Township. This spillover population is heavily oriented toward the Greater Mbarara economy.

In all other gombololas, the urban percentage drops below five percent. In six of the forty-seven gombololas, the urban percentage drops below one percent. This low figure reflects one of two demographic patterns. In two gombololas, Nyakasharara and Burere, the total population is not only small in absolute terms, but the local economy is so dominantly subsistence oriented that there is little demand for central place functions and consequently there are few urban places.

A second pattern appears where the local gombolola contains a fairly large absolute population but due to limited economic development or small areal extent, only a relatively few central places of modest size are required to satisfy local needs. Rubindi, Rubaare, Bugarama and Bwongera gombololas demonstrate this condition.

The range in population size of Ankole urban places is considerable. Mbarara, in the role of "Primate City", clearly dwarfs all other urban places with a population of 5,100 persons. Muti #1 and Muti #2 maintain populations of 470 and 773 respectively. 15 In functional terms these two urban places should be considered as part of "Greater"

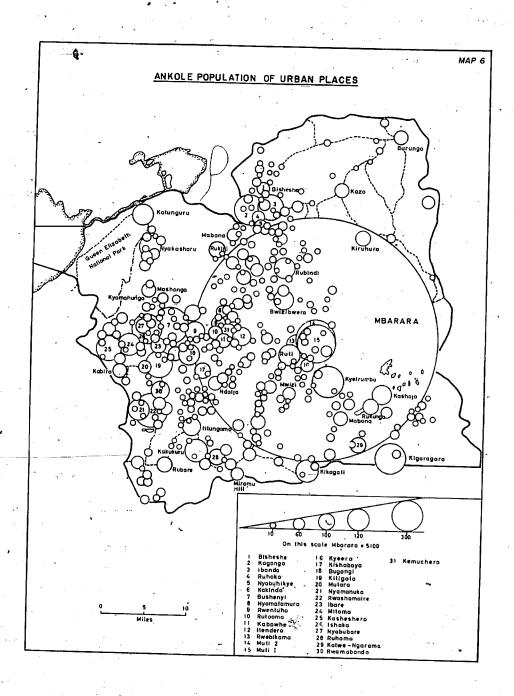
¹⁵Muti #2 is heavily oriented toward the adjacent army base where there are many wives and children of soldiers as well as other persons oriented toward the provision of services for Uganda army personnel.

. MAP 6

Ankole Population of Urban Places

Graduated circles represent proportional increases in resident population per urban place. The fifty-seven largest urban places are identified by name.

Population figures are based on data collected in the field by on-site counts, sample surveys and from official information.



Mbarara" in that there are regular and close occupational and commercial links between the three units and a geographically continuous built up area extends along the major highway eastward from Mbarara through the two Muti settlements.

Assuming that the two Muti urban places are considered as a part of Mbarara, then Bushenyi ranks as the second urban place with a population of approximately 400 persons while Rwashamaire, the third urban place, is inhabited by approximately 223 persons. Three other urban places maintain populations in excess of 200 persons. Seventeen settlements fall into the category of urban places that contain between 100 and 199 people.

Since there are 396 urban places in Ankole, it is, clear that the great majority of them, more than 93% maintain populations of less than 100 persons. In fact 17% of the urban places maintain populations of ten or less persons while another 26% of the urban places maintain populations of between eleven and twenty persons.

The pattern of urbanism is one of a pyramidal structure characterized by a massive base of tiny nascent centers constituting the greatest number of urban places. Of the total urban population for Ankole (21,195), fifty-two percent reside in urban places containing fewer than 100 people. Almost one-fourth (24%) reside in the township of Mbarara. If the additional six urban places

that are officially recognized as African oriented Trading Centers*but are geographically part of the built up urbanized area extending beyond the Township boundaries are included in the population for a Greater Mbarara, then the figure increases to 6,573 or 31% of the total urban population in Ankole.

Mbarara, A Primate City

Clearly, urbanization in Ankole is an uneven process. Some of the urban places have been growing at a more rapid rate than others, while a few former urban places have declined to the extent that they are now abandoned, all their former functions no longer existing.

It has been shown that in many nations the largest city, or "Primate City" 16 is disproportionately large when compared with the second and subsequent cities in descending order of size. Although Ankole is not an independent state, it has a history of political independence and until 1967 existed as a Kingdom with certain autonomy within the nation of Uganda. In any case, the concept of a primate city need not be restricted to consideration at the national level.

It is of interest to compare Mbarara with generalizations about primate cities that have been offered by other

¹⁶M. Jefferson. "The Law of the Primate City," Geographical Review, Vol. 29 (1939), pp. 226-32.

^{*}Muti (1), Muti (2), Rwebikona, Kakoba A, Kakoba B, and Nyamitanga.

researchers. Brian Berry 17 indicates that primate cities are likely to be characteristic of:

- 1) Countries which until recent times were politically or economically dependent on other countries. Mbarara and Ankole as a political unit, rightly agree with the generalization.
- 2) Small countries which once had extensive areas. This generalization is not relevant to the Ankole-Mbarara situation.
- 3) Countries where economies of scale are such as not to require cities of intermediate sizes. Mbarara and Ankole correspond fairly well to the generalization. With a limited cash economy and relatively easy access to areas of population concentration, economy of scale encourages the concentration of commercial and administrative activities to one large center, Mbarara. Arnold S. Linsky 18 proposed the following hypotheses

to which there were varying degrees of agreement.

1) The areal extent of dense population in a country will be negatively associated with the degree of primacy of the leading city. Essentially the generalization argues for a low degree of primacy in countries with large areal extents.

17Brian B. Berry, "City Size Distribution and Economic Development." Economic Development and Cultural Change, Vol. 9 (July 1961), pp. 573-88.

18Arnold S. Linsky, "Some Generalizations Concerning Primate Cities," Annals of the Association of American Geographers, Vol. 55, No. 3 (September 1965), pp. 506-13.

- Mbarara and Ankole conform as Ankole is a relatively small area and a high degree of primacy exists.
- 2) Average per capita income in a country will be negatively associated with the degree of primacy of the leading city. Mbarara and Ankole conform markedly to this generalization as the per capita income for Ankole is very low (under \$100 per annum) and is unevenly distributed.
- 3) Dependence of the economy of a country on exports will be positively associated with the degree of primacy of the leading city. The cash economy of Ankole is heavily geared to the export of coffee, hides, cattle, groundnuts, tea, fish and labor to areas beyond Ankole's borders. Thus there is considerable conformity to the generalization.
- 4) The ex-colonial status of a country will be either positively or negatively associated with the degree of primacy of the leading city. As a non-directional hypothesis the case of Ankole-Mbarara would be positively, associated with the degree of primacy of the leading city.
- 5) The proportion of a nation's work force engaged in agriculture will be positively associated with the degree of primacy of the leading city. Since over ninety-five percent of the Ankole work force is engaged in agriculture, the Mbarara-Ankole situation

conforms very well to the hypothesis.

6) A rapid rate of national population growth will be positively associated with high primacy of the leading city. The current population growth rate for Ankole is around three percent per annum, a relatively high rate of increase by world standards. The high degree of primacy for Mbarara in regard to Ankole urban places again conforms to Linsky's hypothesis.

Rank-Size Urban Hierarchy

Primacy of the largest city can only be relative to the remaining urban places in the area under consideration. It seems worthwhile to consider the urban structure of Ankole by using the "Rank-Size Rule" as a vehicle so as to examine the urban size hierarchy. Two questions may be posed at this point:

- 1) Is the hierarchy different from what might be expected?
- 2) Is the size of any particular city within the hierarchy more or less than what might be expected?

For these questions to be of value, there should be a basis for expecting a recognizable pattern in the urban size distribution within a political unit. Observations over the past years suggest that discernable patterns, do indeed, exist. George K. Zipf¹⁹ is given credit for creating the theoretical framework around which the ranksize relationships concept or rule has been developed.

¹⁹George Zipf, Human Behavior and the Principle of Least Effort, (Addison-Wesley Press, Cambridge, 1949).

Other scholars have subsequently further tested and expanded upon Zipf's initial ideas. 20

Stated simply, the rank-size rule depicts a progression of cities within the urban hierarchy such that when the population of the largest city is known, the population of the other cities can be derived from the rank of their population size. There are a number of techniques by which to express the rank-size relation and deviations from it. The procedure here will be to apply the simplified rank-size model to a limited number of urban places at the upper end of the size hierarchy and derive the expected populations for each of the urban places. 21

Table VI illustrates the rank-size rule approach as applied to the urban places of Ankole that maintain populations in excess of one hundred persons with the expected populations presented in column five. These column 5 figures are purely hypothetical in that they represent what the population size of each urban place would be if

²⁰Brian Berry and William L. Garrison, "Alternative Explanations of Urban Rank-Size Relationships," Annals of the Association of American Geographers, Vol. 48 (March 1958), pp. 83-91; Otis Dudley Duncan, "The Measurement of Population Distribution," Population Studies, Vol XI (July 1957), pp. 27-45; and, Charles T. Stewart, Jr., "The Size and Spacing of Cities," Geographical Review, Vol. XLVIII (April 1958), pp. 222-245.

²¹Harley L. Browning and Jack P. Gibbs, "Systems of Cities," Chapter 12 in <u>Urban Research Methods</u>, Ed. Jack P. Gibbs, (Van Nostrand Company, Princeton, 1961), pp. 436-459.

TABLE VI

COLUMN 1	COLUMN 2	OF THE RANK	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8
	RANK OF POPULATION SIZE	RECIPROCAL OF RANK	ACTUAL POPULATION SIZE	EXPECTED POPULATION SIZE	DIFFERENCE BETWEEN EXPECTED AND ACTUAL SIZE	DIFFERENCE AS PERCENT OF ACTUAL SIZE	DIFFERENCE AS PERCENT OF EXPECTED SIZE
Mbarara	1	1.00000	6,175	2,616	3,559	57.6	136.0
Bushenyi	2	. 50000	400	1,308	908	227.0	69.4
Rwashamaire	3	.33333	223	872	649	291.0	74.4
Ishaka	4	.25000	220.	. 654	434	197.2	66.3
Kigaragara	. 5	.20000	200	523	323	161.5	61.7
Kagongo	. 6	.16667	200	439	239	119.5	54.4
Kitigati	7	.14286	185	373	188	101.6	50.4
Ibanda	8	.12500	178	327	149	83.7	45.5
Katunguru	9	.11111	171	290	119	69.5	41.0
Kasheshero	10	.10000	166	261	95	57.2	36.3
Kakukuru	11	.09091	150	237	87	58.0	36.7
Kikagate	.12	.08333	150	218	68	45.3	31.1
Mitooma	13	.07692	145	201	5 6	38.6	27.8
Nyakasharu	14	.07142	141	186	45	31.9	24.1
Ruti	15	.06666	140	174	34	20.7	19.5
Nyamunuka	16	.06250	135	163	28	20.7	17.1

TABLE VI (CONT'D)

		. APPLICATION	OF THE RANK-S	SIZE RULE TO	THE URBAN PLA	CES OF ANKOLE,	1968		• :
	COLUMN 1.	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	
		RANK OF POPULATION SIZE	RECIPROCAL OF RANK	ACTUAL POPULATION SIZE	EXPECTED POPULATION SIZE	DIFFERENCE BETWEEN EXPECTED AND ACTUAL SIZE	DIFFERENCE AS PERCENT OF ACTUAL SIZE	DIFFERENCE AS PERCENT OF EXPECTED SIZE	Ì
	Bugongi	17	.05882	132	153	21	15.9	13.7	
	Rwentuha	18	.05555	120	145	25	20.8	17.2	
	Kashojo	19	.05263	119	13,7	18	15.1	13.1	
	Bwizibwera	20	.05000	111	130	19	17.1	14.6	
	Ntungamo	21	.04761	105	124	19	18.0	15.3	
1	Rwama bondo	22	.04545	103	118	15	14.5	12.7	
	Itendero	23	.04347	103	113	10	9.7	8.8	
	Σx		3.73424	9,772	9,762	7,108	1,692.1	887.1	
	Σx/n*			424	424	309	73.5	38.5	

they all conformed to the rank-size rule. When columns 4 and 5 are compared it is clear that the expected and actual size distributions are quite different. To express the degree of correspondence between actual and expected distributions in terms of an over-all index of deviation from the rank-size rule, the absolute differences in column 6 are summed and the total is divided by two. The resulting quotient is then expressed as a percent of the urban place residents (in centers over 100 persons) who would have to move from one urban place to another in order to bring about a perfect correspondence between the urban hierarchy and the rank-size rule. The percent for Ankole is 36.3.

The index described above is a fairly good over-all measure of the lack of conformity to the rank-size rule (the greater the percent, the less the conformity). The index does suffer from the fact that it may be considerably influenced by one large urban place. Mbarara, for example, accounts for slightly more than one-half of the total amount of deviation for all the urban places.

To establish the average discrepancy between the actual and expected size of individual places independent of their size, the figures in column 7 are utilized. These represent the difference between the actual and expected size of each urban place as a percent of the actual and expected size. When the sum of these figures is divided by the number of

urban places, the resulting quotient is the average amount that the urban place would have to increase or decrease (in percentage terms) to fit the rank-size rule. As indicated at the bottom of column 7, this figure is 73.5 for Ankole (1962.1/23 = 73.5).

Another means of describing the correspondence between the urban hierarchy and the rank-size rule is provided by the figures in column 8, where the difference between the actual and expected size of each urban place is expressed as a percent of the expected population. These figures show the percent of error in predicting the population of an urban place on the basis of the rank-size rule. Thus, as indicated at the base of column 8, the expected population of an urban place in Ankole is, on the average, 38.5 percent above or below the actual size of the urban place.

Each of the above measures indicates that Ankole's urban place hierarchy deviates considerably from that anticipated on the basis of the rank-size rule. For comparative purposes, Table VII permits a crude comparison between Ankole and other political units where comparable measurements have been recorded. Table VII indicates that Ankole deviates from the rule much more than do other selected urban place hierarchies. It will be noted that there is considerable variation among the compared urban hierarchies with the measure being sensative to variations

²²Browning and Gibbs, op. cit., p. 446.

TABLE VII

SUMMARY MEASURES OF THE DEVIATION OF URBAN AREAS FROM THE RANK-SIZE RULE IN SEVEN POLITICAL UNITS

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
POLITICAL UNIT AND YEAR	OVER-ALL DEVIATION FROM	AVERAGE DEVI OF URBAN A	1	CONSIDERED URBAN POPULATION	NUMBER OF URBAN AREAS
	RANK SIZE RULE*	DIFFERENCE BETWEEN ACTUAL AND EXPECTED SIZE AS PERCENT OF ACTUAL SIZE**	DIFFERENCE BETWEEN ACTUAL AND EXPECTED SIZE AS PERCENT OF EXPECTED SIZE***	1	
Ankole, 1968	36.3	73.5	38.5	9,772	23
Brazil, 1950	16.1	45.1	33.4	9,094,368	16
Canada, 1956	9.3	11.5	12.2	7,181,775	13
France, 1954	20.2	26.0	20.4	14,877,774	30
Italy, 1951	9.3	8.8	9.2	11,926,676	28
Mexico, 1950	24.3	45.9	33.6	5,306,373	13
Netherlands, 1947	10.5	12.0	12.8	4,381,346	14
bring about a p **Figures indicat conform to the	perfect corresporte the average per rank-size rule.	dence between the ercent that each un	o move out of one urb rank-size rule and t rban area would have ize of an urban area	he urban place hie to increase or dec	erarchy. crease to

in economic development. Deviations seem greatest in areas where economic development is least. Although Ankole's small urban place population may be the significant factor in its relatively high deviation measurements in columns 2 and 3, the deviation measurements seem to be generally independent of the number of urban places and, excluding Ankole, the size of the total measured urban population. Patterns in Deviation

The measures recorded in Table VII indicate only the amount of deviation from the rank-size rule and not the pattern of deviation among the individual urban places. Certain types of patterns do appear and they may vary in character from one study area to another. The possible patterns with regard to the size of urban places are:

- A) The larger the urban place the greater the discrepancy between its actual and expected size.
- B) The smaller the urban place the greater the discrepancy between its actual and expected size.
- C) No discernible connection between the size of an urban place and the extent of the discrepancy between its actual and expected size.
- D) The larger the urban place the more its expected size exceeds its actual size.
- E) The smaller the urban place the more its expected 23

²³Patterns A and B refer only to the extent of deviation, while D and E take into account both the extent and direction of deviation.

TABLE VIII

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8
URBAN, PLACE	EXPECTED SIZE MINUS ACTUAL SIZE AS PERCENT OF ACTUAL SIZE***	RANK OF COLUMN 2 IGNORING SIGNS	RANK OF COLUMN 2 CONSIDERING SIGNS	EXPECTED SIZE MINUS ACTUAL SIZE AS PERCENT OF EXPECTED SIZE***	RANK OF COLUMN 5 IGNORING SIGNS	RANK OF COLUMN 5 CONSIDERING SIGNS	RANK OF ACTUAL POPULATION SIZE
Mbarara	- 57.6	10	23	-136.0	1 1 - 1 - 1	23	1
Bushenyi	+227.0	2	2	+ 69.4	3	. 2	2
Rwashamaire	+291.0	1 .	. 1	+ 74.4	2	1	3
Ishaka	+197.0	3	3	+ 66.3	4	3	4
Kigaragara	+161.5	4	4		5	4	5
Kagongo	+119.5	5	5	+ 5454	6	5	6
Kitigati	+101.6	6	6	+ 50.4	7	6	7
Ibanda	+ 83.7	7	7	+ 45.5	. i 8	7	8
Katunguru	+ 69.5	8	8	+ 41.0	9	8	9
Kasheshero	+ 57.2	11	10	+ 36.3	11	10	10
Kakukuru	+ 58.0	9 .	.9	+ 36.7	10	9	11
Kikagate	+ 45.3	. 12	11	+ 31.1	12	11	12
Mitocma	+ 38.6	13	12	+ 27.8	13	12	13

TABLE VIII (CONT'D)

BETWEEN THE ACTUAL SIZE OF URBAN PLACES IN ANKOLE AND THEIR EXPECTED SIZE ACCORDING TO THE RANK-SIZE RULE, 1968*

				The second of th	. 700		
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8
URBAN PLACE	EXPECTED SIZE MINUS ACTUAL SIZE AS PERCENT OF ACTUAL SIZE**	RANK OF COLUMN 2 IGNORING SIGNS	RANK OF COLUMN 2 CONSIDERING SIGNS	EXPECTED SIZE MINUS ACTUAL SIZE AS PERCENT OF EXPECTED SIZE***	RANK OF COLUMN: 5 IGNORING SIGNS	RANK OF COLUMN 5 CONSIDERING SIGNS	RANK OF ACTUAL POPULATION SIZE
Nyakasharu	+ 31.9	14	13	+ 24.1	14	13	14
Ruti	+ 20.7	16 🐩 🗸	15	+ 19.5	15	14	15
Nyamanuka	+ 20.7	17	16	+ 17.1	17	. 16	16
Bugongi	+ 15.9	20	19	+ 13.7	20	19	17
Rwentuha	+ 20.8	15	14	+ 17.2	16	15	18
Kashojo	+ 15.1	21	20	+ 13.1	21	20	19
Bwizibwera	+ 17.1	19	18	+ 14.6	19	18	20
Ntungamo	+ 18.0	18	17	+ 15.3	A 18	17	21
Rwamabondo	+ 14.5	22	21	+ 12.7	22	21	22
Itendero	+ 9.7	23	22	+ 8.8	23	22	23
*Data taker	n from Table VI	I		·			:

^{**}Percent figures indicate how much each urban place would have to increase (plus sign) or decrease (minus sign) to conform to the rank-size rule.

^{***}Percent figures indicate amount of error in predicting actual from expected size, with a plus sign indicating an over estimate and a minus sign indicating an underestimate.

size exceeds its actual size.

F)-No discernible connection between the size of an urban place and the direction of its deviation from the rank-size rule.

Previous measurements of the relation between size and deviation from the rank-size rule suggest that the presence or absence of each of the size patterns (A-F) in a study area is a matter of degree. Patterns A and B form a continuum, with pattern C representing the midpoint. Patterns D and E form a second continuum, with F at the midpoint.

The discrepancy between actual and expected size of Ankole's urban places is expressed as a percent of the actual size in column 2 of Table VIII and as a percent of the expected size in column 5. It is necessary to express the difference between actual and expected size in percentage terms, because the discrepancy in absolute population totals can be much greater for large urban places than for small ones.

A minus sign before a number in the second column indicates the urban place's size would have to decrease to conform to the rank-size expectation, while a positive sign indicates that an increase would be required. Mbarara, for example, would have to decrease its population 57.6 percent but Bushenyi would have to increase 227.0 percent.

A minus sign before a number in column 5 indicates

that the actual exceeds the expected size, while a positive sign indicates that the reverse is true. Thus, the expected size of Mbarara is 136.0 percent too low and the expected size of Bushenyi is 69.4 percent too high.

The rank of the numbers shown in column 2 are given in column 3 (Table VIII), with the signs ignored (only the amount that the urban place would have to increase or decrease is considered). If pattern A holds in Ankole, one should find that the ranks in column 3 agree closely with the ranks of population size in column 8; if pattern B holds there should be an inverse relation between the ranks. The rank-order coefficient of correlation (rho)²⁴ is +.94, which reveals that pattern A prevails in Ankole to an extremely high degree. Simply, the larger the population size of an urban place in Ankole, the greater is the discrepancy between its actual and its expected size. Pattern A also prevails when the discrepancy is expressed as a percent of the expected rather than the actual size. Rho between the ranks in columns six and eight is +.98:

The presence of pattern A in Ankole indicates only that as the urban places increase in size, the more do they deviate from the rank-size rule; it does not indicate whether pattern D or pattern E prevails (whether size is

correlated directly or inversely with the excess of the expected size over the actual size).

To establish the presence or absence of patterns D and E, the signs of the number in column 2 must be taken into account. This is done in column 4, where the urban place with the greatest excess of expected over actual size is assigned the rank of 1 (Bushenyi) and the urban place with the least excess (Mbarara, where the actual size exceeds the expected size) is assigned a rank of 23. Rho between the ranks shown in columns 4 and 8 is +.73, which indicates that as the size of the urban place increases the more the expected population exceeds the actual population. Thus, pattern D prevails in Ankole and it also prevails when the excess of the expected over the actual population is considered as a percent of the expected population (See column 5). Rho between the ranks in columns 7 and 8 is again high, +.75.

Two features of the patterns in Ankole's urban place size hierarchy should be noted. First, it is of importance that there is some discernible association between the size of urban places and the extent to which they deviate from the rank-size rule. Second, size is correlated more closely with the extent of deviation than with the direction of the deviation.

While the preceding mechanics provide standardized measures of certain patterns in the deviation of Grban

places from the rank-size rule, they are useful only insofar as these patterns actually appear in different areas of study. If Ankole were the only area in which there is some order in deviation, or if approximately the same pattern appeared in all areas of study, the measures would be of little value in comparative research.

Table IX indicates that in fact there are a variety of patterns which are present in different study areas. The correlation between the size of urban areas and deviation from the rank-size rule varies, depending on the study and the measure considered, from -.77 to +.94. Thus, pattern A is found in France, Mexico and Ankole, but pattern B is quite strong in Brazil. Further, a mixture of patterns C, D, E, and F is found among the seven study areas.

The rank-size rule approach to urban place patterns is only one means of attempting to depict relationships between the urban places in Ankole. Another approach which could have value is to attempt to consider some of the spatial relationships among the Ankole urban places.

Spatial Patterns

Map 6 indicates the overall spatial distribution of Ankole urban places by population. Across the world, in Africa, or within Uganda, depending on the areal unit of study, the major urban places tend to vary greatly in terms of their location in relation to each other. The pattern may be one where urban places are concentrated in certain

CORRELATIONS (RHO'S) BETWEEN THE SIZE OF URBAN AREAS AND VARIOUS MEASURES OF THE DISCREPANCY BETWEEN THEIR ACTUAL POPULATION AND THAT EXPECTED ON THE BASIS OF THE RANK-SIZE RULE WITHIN SEVEN STUDY AREAS. Correlation of the Size of Urban Areas With:

	DIFFERENCE BETWEEN AND EXPECTED SIZE	N ACTUAL	EXPECTED SIZ	E MINUS ACTUAL
Study Areas and Year*		ercent xpected **	As percent of Actual Size***	As percent of Expected Size***
Ankole, 1968	+.94 +.	98	+.73	+.75
Brazil, 1950	70	47	77	77
Canada, 1956	+.29 +.	24	+.49	+.49
France, 1954	+.63 +.	64	+.44	+.44
Italy, 1951	+.47 +.	46	18	18
Mexico, 1950	+.80 +.0	92	+.49	+.49
Netherlands, 1947	+.36 +.3	3	+.23	+.49

^{*}Number or Urban Areas: Ankole, 23; Brazil, 16; Canada, 13; France, 30; Italy, 28; Mexico, 13; Netherlands, 14. **Positive coefficients indicate that size varies directly with the magnitude of the discrepancy

between actual and expected size. ***Positive coefficients indicate that size varies directly with the amount that the expected size exceeds the actual size.

Data for study areas in addition to Ankole is taken from Browning and Gibbs, op. cit.,

regions or they may be more evenly dispersed across the landscape. This relationship can be expressed in quantitative terms and may therefore be used for comparative purposes.

Initially the approximate distance between each urban place and its nearest neighbor under conditions of an even spatial distribution can be determined. This hypothetical distance can be computed on the basis of a simple formula:

Hd = 1.11
$$\sqrt{\frac{A}{N}}$$

where Hd is the hypothetical distance, A is the area of the region concerned (Ankole comprises 5,981 miles), and N is the number of urban places (23 in Ankole exceed 100 persons). 25 For Ankole the hypothetical distance is 16.1 miles while the actual mean distance between the urban places and their nearest neighbors in 12.1 miles. characteristic that the hypothetical distances usually exceed the actual distances. If the actual distance equalled the hypothetical, there would be no concentration of urban places; accordingly, when the actual distance is expressed as a percent of the hypothetical distance (75.1 percent for Ankole), the resulting figure is a measure of the extent to which urban places are dispersed rather than concentrated. As the values approach 100.0 percent there is a closer conformity to maximum dispersion while values

²⁵Browning and Gibbs, op. cit., pp. 453-56.

approaching 0.0 percent indicate a minimum dispersion (considerable clustering). If the Queen Elizabeth National Park and the extensive forest reserve of Buwehju which are basically uninhabited and therefore do not contribute to the productivity of the area concerned were removed from consideration, then the value obtained when the actual distance is expressed as a percent of the hypothetical distance would more closely approach 100.0 percent thus indicating still greater dispersion of urban places.

Again for comparative purposes, Table X permits the comparison of Ankole with actual and hypothetical distances between urban areas and their nearest neighbors for other political units where such figures are available. The measurements shown in Column 6 of Table X generally conform to our knowledge of these areas. Brazil and Canada are very different from the other political units and their low values reflect both huge land areas and extensive virtually uninhabited regions. Netherlands and Ankole have the highest values reflecting widespread population distribution and reasonably effective occupation of most of their land area.

Another feature of the spatial distribution of urban places in an area is the regularity in the distance between urban places and their nearest neighbors. If a regularity exists, the distance separating each urban place from its nearest neighbor would be close to the mean distance for

201.

TABLE X

COMPARISON OF ACTUAL AND HYPOTHETICAL MEAN DISTANCE BETWEEN URBAN AREAS AND NEAREST URBAN PLACE
BETWEEN ANKOLE AND SIX SELECTED POLITICAL UNITS

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
POLITICAL UNIT AND YEAR	NUMBER OF URBAN PLACES	AREA IN SQUARE MILES	ACTUAL MEAN DISTANCE BETWEEN URBAN PLACES AND NEAREST URBAN PLACE*	HYPOTHETICAL MEAN DISTANCE UNDER CONDITIONS OF AN EVEN SPATIAL DISTRIBUTION OF URBAN PLACES*	ACTUAL MEAN DISTANCE AS PERCENT OF HYPOTHETICAL DISTANCE
Ankole, 1968	23	5,981	12.1	16.1	75.1
Brazil, 1950	16	3,287,195	154.0	502.0	30.7
Canada, 1956	13	3,851,106	171.0	604.0	28.3
France, 1954	30	212,821	59.0	93.0	63.4
Italy, 1951	28	116,303	43.0	71.0	60.6
Mexico, 1950	13	760,335	160.0	269.0	59.5
Netherlands, 1947	14	12,529	22.0	33.0	66.7

*Ankole distances are computed along most direct road. Distances for other six political units are computed along a direct line distance in statute miles.

Source of data for six selected political units is Table 5, page 453 in Browning and Gibbs

[&]quot;Systems of Cities," Chapter 12 in Urban Research Methods, Jack P. Gibbs, 1961.

all of the urban places in the area of study. Accordingly, the average deviation of the urban places from the national mean provides an indication of regularity in the distance separating urban places and their nearest neighbors.

Columns 2, 3, and 4 of Table XI present this information.

The average deviation of the distances between urban places and their nearest neighbors from the national mean is again presented for selected political units for comparative purposes in Table XII column 3. These numbers should not be compared without taking the size of the study area into account, since the greater the mean distances between urban places and their neighbors the more it is possible for individual urban places to deviate from the This factor is taken into account in column 4 of Table XII by expressing the average deviation as a percent of the mean distance, with each percentage figure providing a gauge of the irregularity in the spacing of urban places: the lower the percent the more regular is the spacing. Thus, of the seven compared study areas, the urban areas of France are the most regularly spaced. Ankole measurement indicates a fairly regular spacing of its major urban places while a high degree of irregularity characterizes the spatial distribution of urban places in Canada. Size of Urban Centers as a Factor in the Spatial Patterns

The size of urban places as a factor in the spatial

patterns of Ankole also merits attention. A voluminous

DISTANCE BETWEEN EACH URBAN PLACE IN ANKOLE AND ITS NEAREST NEIGHBOR AND NEAREST LARGER NEIGHBOR, 1968; URBAN PLACES EXCEEDING 100 PERSONS

		METGUBOK, 1900;	UKBAN PLACES	EXCEEDING 1	100 PERSONS	· 1	
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8
URBAN PLACE	DISTANCE BETWEEN EACH URBAN PLACE AND ITS NEAREST	DEVIATION OF DISTANCE OF EACH URBAN PLACE FROM	RANK OF DISTANCE BETWEEN URBAN PLACE	RANK OF POPULATION SIZE	SIZE RANK IGNORING MBARARA	RANK OF DISTANCE BETWEEN URBAN	DISTANCE BETWEEN URBAN PLACE AND NEAREST
and demands of the second of t	NEIGHBOR*	MEAN				PLACE AND NEAREST LARGER U.P.	LARGER URBAN PLACE
Mbarara	3	9	22.5	1	<u>.</u>	_	•
Bushenyi	5	7	18.5	2	1	5	32
Rwashamaire	6	6	16.5	3	2	6	30
Ishaka	5	7	18.5	4	. 3	20	4
Kigaragara	24	12	2.5	5 .	4	1	55
Kagongo	4	8	20.5	6	5	2	52
Kitigata	15	3	6.0	7 .	6 .	12.5	14
Ibanda	4	8	20.5	8	. 7	21.5	3
Katunguru	. 15	3	6.0	9	8	4	. 33
Kasheshero	10	. 2	11.5	10	9	10.0	16
Kakukuru	14	. 2	8.5	11	10	7.5	24
Kikigate	45	33	1.0	12	11	3	45
Mitocma	10	2	11.5	13	12	15.5	10
	•		x :				

*All distances are computed along the most direct road connecting urban places.

TABLE XI (CONT'D)

DISTANCE BETWEEN EACH URBAN PLACE IN ANKOLE AND ITS NEAREST NEIGHBOR AND NEAREST LARGER NEIGHBOR, 1968; URBAN PLACES EXCEEDING 100 PERSONS COLUMN 1 COLUMN 2 COLUMN 3 COLUMN 4 COLUMN 5 COLUMN 6 COLUMN 7 COLUMN 8 URBAN PLACE DISTANCE DEVIATION OF RANK OF RANK OF SIZE RANK RANK OF DISTANCE BETWEEN DISTANCE OF DISTANCE POPULATION IGNORING DISTANCE BETWEEN EACH URBAN EACH URBAN BETWEEN SIZE MBARARA BETWEEN URBAN PLACE PLACE AND PLACE FROM URBAN PLACE URBAN AND NEAREST ITS NEAREST NATIONAL AND ITS PLACE AND LARGER NEIGHBOR* MEAN NEAREST NEAREST URBAN PLACE **NEIGHBOR** LARGER U.P. Nyakasharu 15 14 11 15 Ruti 22.5 15 14 21.5 Nyamanuka 16.5 16 15 19 Bugongi 10 11.5 17 15.5 10 Rwentuho 14.5 18 17.5 Kashojo 24 12 2.5 . 19 18 7.5 24 Bwizibwera 18 20 19 9 18 Ntungamo 14 8.5 21 12.5 20 14 Rwamabondo 9 22 14.5 21 17.5 Itendero 10 11.5 23 22 14 11 $\sum x$ 278 140 $\sum x$

18.9

12

N

TABLE XII*

MEAN DISTANCE BETWEEN URBAN AREAS AND THEIR NEAREST NEIGHBORS: SEVEN STUDY AREAS

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COUNTRY AND YEAR	MEAN DISTANCE BETWEEN URBAN AREAS AND NEAREST URBAN AREA**	AVERAGE DEVIATION OF URBAN AREAS FROM MEAN DISTANCE	AVERAGE DEVIATION AS PERCENT OF MEAN DISTANCE
Ankole, 1968	12	6	50.0
Brazil, 1950	154	99	64.3
Canada, 1956	171	124	72.5
France, 1954	59	25	42.4
Italy, 1951	43	28	65.1
Mexico, 1950	160	7.9	49.4
Netherlands, 1947	22 ş	14	63.6

^{*}Data except for Ankole taken from Browning and Gibbs, op. cit., p. 456.

^{**}Ankole distances are road distances in statute miles. Distances for other study areas are direct line distances in statute miles.

literature already exists to consider the locational patterns of urban places based on the sophistication and frequency of services that they offer. This topic will be considered in subsequent chapters.

The ideas of Christaller²⁶ and subsequent workers depict urban places as performing services for the surrounding territory. The territory, the service field, has an areal extent in direct proportion to the size of the urban place. Although the service areas of some urban places overlap with parts of the area of a smaller urban place (the smaller urban places are contained in the area of the closest larger urban place), urban places of approximately the same size should not overlap.

· Two spatial patterns that should be logical conclusions of such ideas are:

- 1) A somewhat regular distance exists between each urban place and its nearest neighbor.
- 2) The greater the size of the urban place, the greater the distance between it and the nearest larger urban place.

Thus if the ideas of Christaller, et. al., do apply to the first described spatial pattern of urban places, one

²⁶w. Christaller, <u>Die Zentralen Orte in Suddeutschland:</u>
<u>Eine Okonomisch-Geographische Untersuchung uber die Gesetzmassigkeit der Verbreitung und Entwicklung der Siedlungen mit stadtischen Funtionen</u>, (Gustav Fischer Verlag, *Jena, 1933). A translation is available by C. Baskin, <u>The Central Places of Southern Germany</u>, (Prentice Hall, Englewood Cliffs, 1966).

should expect that the size of an urban place bears little relation to the distance between it and its nearest neighbor. This demands a standardized measure of the relation between the size of urban places and the distance between them and their nearest neighbors. A simple measure is provided by the rank order coefficient of correlation. Using the data from Table XI column 4, the ranks of the distance between each urban place and its nearest neighbor, is compared against column 5, the rank of each urban place by size of population. The application of the rho formula (see footnote 24) to these two sets of ranks gives a coefficient of -.35, which indicates that in Ankole the distance between an urban place and its nearest neighbor is not closely related to the size of the urban place. feature of the locational pattern demonstrates some consistency with the ideas of Christaller and his desciples.

The second demographic-spatial connection suggested by Christaller's ideas is that of a direct relationship between the size of an urban place and the distance separating it from the nearest larger urban place. Once again a simple measure of the relationship is provided by rho. For Ankole, rho's computation is based on the ranks of the population size of the urban places (column 6, Table XI) and the ranks of the distance between each urban place and the nearest larger urban place (column 7). The rho coefficient is +.45. The direction of the correlation is

TABLE XIII*

CORRELATIONS (RHO) WITHIN STUDY AREAS BETWEEN SIZE OF URBAN AREAS AND DISTANCE TO OTHER URBAN AREAS

Correlation of Size of Urban Areas With:

	•	Correlation of Size of Orden Areas with:				
	Study Area and Year	Distance to Nearest Urban Area	Distance to Nearest Larger Urban Area			
٠,٠	Ankole, 1968	35	+.45	1		
	Brazil, 1950	+.01	+.62			
	Canada, 1956	32	+.32			
	France, 1954	34	+.29			
	Italy, 1951	+.37	+.72	•		
	Mexico, 1950	÷.18	+.23	err - 100		
	Netherlands, 1947	+.13	+.39			

*Data for study areas except Ankole derived from Browning and Gibbs, op. cit., p. 458.

as anticipated by the ideas of Christaller (the larger the urban place, the greater the distance to its nearest larger neighbor). The limited magnitude of the coefficient indicates that size is perhaps only a moderate factor in this aspect of the locational pattern in Ankole.

The correlations reported for Ankole should not be interpreted to mean that the relationship between the size of urban places and their distance from other urban places is negligible in all study areas.

Table XIII indicates that both the strength and direction of the relation vary considerably from one study area to another. In Italy, for example, there is some tendency for large urban areas to be located at a considerable distance from other urban areas but the reverse is true for Canada and France. Variability in the relation between the size of urban areas and distance to the nearest larger urban area is equally striking, with rho for Brazil and Italy (+.62 and +.72) being well above that of the other study areas.

Summary

Ankole in pre-colonial times (pre-1898) was characterized by a settlement pattern of dispersed rural farmsteads/menyattas. Although the Royal Kraal attained considerable size as a consequence of the presence of retainers and noble functionaries and some menyattas were large for

ments. Long lived compact or agglomerated villages have never been a traditional form of settlement in Ankole.

Permanent compact settlements in Ankole first appeared with the arrival of foreign elements in the form of British and Ganda administrators and missionaires as well as Asian merchants. These new arrivals established settlements to satisfy the administrative, religious, educational and commercial functions that were introduced to the new British Protectorate.

Although the initial urban place was established very early (Mbarara in 1898), the first decades of the twentieth century exhibited a limited growth rate in the number of established urban places. Administration and religion were important features of early urban places but one should look to the growth of a commercial economy for the expansion in the number of urban places. Production of agricultural surpluses and the mining for tin and gold were important stimulants to the establishment of numerous urban places while the Trading Centre Ordinance of 1933 helped to establish fixed settlements with specified standards of urban place design.

In spite of the large number of contemporary urban places (396), most of them remain tiny. Their total population is small (2.56% of the total Ankole population) so that urbanization is still in a very early stage.

Characterized by a primate distribution of urban places, Mbarara stands out clearly as a primate city, 16.5 times larger than the second ranking urban place, Bushenyi. In comparison with traditional literature concerning primate cities, Mbarara compares favorably with earlier developed patterns and characterizations.

Applications of the rank-size rule ideas to Ankole reveal that the urban place structure does not conform to the idealized system of rank-size arrangement as defined in traditional literature. Chapter six, pages 193-197 further develops the ideas of rank-size and the relationship of Ankole urban places to these ideas.

The understanding of spatial relationships among urban places may be illuminating. For example, the distance separating urban places may set limits, relative to the mode of transportation and communication, on the flow of goods, services and people between them. Given that the modes of transportation and communication are everywhere the same, it is possible that functional specialization may occur among urban places which are located in close proximity to each other. Furthermore, if the distance separating a particular urban place from other settlements is markedly different from the pattern as a whole, it may identify the center as atypical in terms of economic, demographic or functional characteristics.

It thus becomes useful to describe the pattern of

spatial distribution of urban places and to employ standard measures that may be applied elsewhere so that results may be compared. To this end various simple techniques were employed in order to describe some of the simpler spatial relationships among the urban places in Ankole.

The results derived from the employment of these various techniques indicate that: 1) there is considerable dispersion of urban places in Ankole; 2) that a fairly regular spacing of the major urban places characterizes Ankole; 3) that the distance between an urban place and its nearest neighbor in Ankole is not closely related to the size of the urban place and; 4) that there is not a strong relationship between the size of an urban place and the distance separating it from the nearest larger urban place.

CHAPTER IV

ANKOLE URBAN PLACES, FORM AND FUNCTIONS

FORM

In consideration of the "form" of Ankole urban places, various aspects of settlement or urban design may merit discussion. These aspects may include street patterns, building architecture including materials, height, floor plan, orientation of structures, etc., public amenities, settlement size, general morphology and others. The Ankole urban places range widely in areal size, resident population and services offered. They are not much varied in matters of housetype, building materials employed, street pattern, pattern of residence and general morphology. Controls Over Form

In the formative years of urban growth, pre-1934, there were no building codes or planning regulations with which urban builders and dwellers had to conform. The only real limitations were economic and/or political. Economic limitations took the form of inadequate investment capital for substantial and long lasting building materials. In addition there were no guarantees as to the longevity of whatever economic activities were generating the cash surplus that supported the mascent urban places. Political limitations operated effectively in that non-Ankole residents (in-migrants) were forced to establish their

institutions and reside on, or adjacent to, Mailo or Crown Land. 1

The effect of these limitations was to encourage Asian shops (dwellings were usually attached) to be constructed of mud and wattle with thatched roofs or simply, walls and roofing of corrugated iron sheeting. Early mission and school buildings were made of similar materials although brick later became fashionable and preferred at missions where economic growth permitted. African shops and/or dwellings at urban places continued to retain their traditional character² although mud and wattle structures with rectangular floor plans and pitched roofs began to replace the traditional beehive thatched dwelling with circular floor plan.

It was not until the 1930's when Trading Centers were gazetted and non-Africans were expected to reside in the Gazetted Trading Centers that more permanent structures were established and consistent morphology patterns began to evolve. In the newly created Trading Centers it was decided that land would be surveyed and minimum size lots for lease would be recorded. Traders or others could then take out leases (usually for 49 or 99 years) and proceed to build on the leased lots. Furthermore, minimal building standards were established which called for a permanent

¹See Chapter III, footnote 9.

²See Chapter III.

cement or concrete foundation and solidly constructed walls of concrete block, brick or similar materials. Roofing materials had to be more permanent and less of a fire hazard than was the traditional grass thatching. Corrugated iron sheeting, which was relatively cheap, emerged as the ubiquitous roofing material although clay tiles were occasionally employed.

Uniformity of Design in Gazetted Trading Centers

The effect of the creation of gazetted trading centers was to generate a seeming uniformity of style, architecture and general appearance at the urban places so designated. The gazetted urban places immediately developed into centers of Asian controlled commerce with the later addition of various administrative, educational, religious and other functions. Since commercial structures (with residences behind them) formed the core of each urban place, few Africans were to be found.

The general absence of Africans from the commercial core was largely a matter of economics. Substantial costs were incurred by the residents since they had to pay for leases and invest cash sums in the building materials now required by law. Subject to the same building regulations in the gazetted centers, would be African businessmen simply could not afford the costs of construction.

It would be the grossest error not to recognize that other factors also contributed to the absence of Africans

in the Gazetted urban places. It was generally recognized that Africans would encounter severe competition from Asian merchants at the same locale. In addition, Asian merchants seemed to have easier credit opportunities when it came to buying stock while few Africans were able to amass enough capital to maintain sizeable inventories that would permit them to compete favorably with adjacent Asian merchants.

The Commercial-Dwelling Unit in the Gazetted Urban Place

Characterizing the commercial core of every gazetted urban place is a collection of "dukas". The duka is traditionally an Asian built, owned and operated one story shop/dwelling on a lot 50 by 100 feet. Probably introduced into Uganda from India around 1915, 3 the 50 by 100 foot lot size came to prevail in the commercial areas of Ankole in the 1930's when trading centers were surveyed and plots laid out for lease. Commonly, a duka structure may be divided in half and two commercial-residential units will occupy the 50 by 100 foot plot.

Foundations are usually of cement or concrete and although some of the early dukas were enclosed by walls of corrugated iron sheeting, most dukas were built of concrete block and faced with plaster. The actual commercial

³McMaster, D.N., "The Colonial District Town in Uganda," Chapter 14 in R.P. Beckinsale and J.M. Houston, Edit., <u>Urbanization and its Problems</u>, 1968, Basil Blackwell, Oxford, pp. 330-51.

activity takes place in a room facing the street. Window-less except for air vents, wide heavy wooden doors open across the front of the shop to give access and exit. The doors open onto a veranda covered by an overhang which is supported by posts or pillars anchored in the veranda floor. The entire structure is usually at least-six inches above the ground level and usually higher.

The inside of the shop finds the walls lined with shelves stocked with the inventory as well as a counterlike fixture separating the customer from the merchant. A rear door gives access to the living compound located to the rear.

A high wall extends from the rear sides of the duka to enclose a compound on the 50 by 100 foot lot. Attached or semi-attached to the rear of the shop are the living quarters of the Asian family. Additional rooms may exist as detached structures, yet within the compound. Such rooms may be used for living or storage purposes.

Arranged parallel to one another and facing the main road, the buildings make the scene one of monotony. The only variations that may exist appear in the pastel hue chosen when the walls were first painted. Advertising is limited to the name of the merchant, a sign indicating the commercial activity within, and perhaps paper advertisments or posters that have been attached to the walls or doors.

Only in Mbarara and Bushenyi have dramatic changes

begun to appear in the commercial core of gazetted urban places. Both of these settlements are legally classified as Townships and as such have greater controls over their immediate circumstances. As the largest and commercially the most important centers in Ankole, changes occurred here first. Diffusing from the larger cities of Kampala and Masaka, newer and much larger buildings with more modern attitudes toward commercial design have replaced or been added to the existing duka units of the traditional urban core. Large glass windows with stock on display, more inviting interiors, and perhaps a second story represent the more dramatic changes.

Where economics permit, Mbarara businessmen have moved their residences apart from their commercial prem - ises. These are relatively few but they have given rise to a distinctly residential area adjacent to the commercial core of the city.

Beyond the Commercial Core

Most urban places in Ankole are organized around the commercial core. Additional functional units may include schools, religious buildings, administrative buildings, health care units, periodic markets, and units for wholesale produce. Although storage units are usually sited on the fringe of the urban core, the other functional units are commonly located some distance away, in some cases, up to one mile.

Form in Non-Gazetted Urban Places

African urban places appeared as Africans too began to establish shops for the permanent provision of sales and services. The early growth of African (as well as Gazetted) urban places was probably retarded by competition in the form of periodic markets. Many African merchants were successful as itinerant traders moving daily from market to market rather than operating from a permanent shop. Some merchants were, however, able to accumulate capital and/or establish credit that eventually enabled them to invest in a permanent retail establishment.

Until 1958 there were only the vaguest official controls over the location of, and building standards within, an African urban place. A prospective merchant needed little more than the verbal permission of a local Mruka chief who may or may not have advised, or sought the approval of, the corresponding gombolola or saza chief. Usually the prospective merchant was a local resident and maintained a farm and family near the prospective shop site.

The choice of site varied with the local physical conditions, economic opportunities and local political-social intrigues. An already existing urban place offered the opportunity of a potentially larger market though

⁴The Mrukas are the smallest administrative subdivisions that collectively comprise a gombolola.

perhaps more competition. The presence of a local administrative headquarters was influential in the attraction of commercial functions to the urban place. All but three of the fifty-six urban places that are saza and gombolola headquarters also include various commercial functions. The most common pattern, however, is a lone shop or two with perhaps a nearby combination pre-primary school and church. The Commercial-Dwelling Unit in the African Urban Place

Traditionally African urban places were not governed by building codes of any kind. Shops, dwellings and other buildings were sited at whatever orientation the owner desired and were built of whatever materials the owner cared to choose. In addition, there were no established standards of sanitation. These conditions prevailed until 1958 when the Ankole African Shops and Trading Center Law was effected. Its design was to control and improve the African shops and urban places.

For its purpose, the law defined an African Trading Center as any place in which there are erected two or more shops and which is designated a center by the saza chief with the advice of the saza council. A shop was interpreted to mean any building used as a commercial shop, an eating house or a workshop. Furthermore, from the commencement of the law, shops could only be built on land allocated or approved for the purpose by the saza chief of the area with

⁵The Ankole African Shops and Trading Centres Law. Law No. 134 of the Ankole District Government. 1958.

the advice of the saza council.

The law carefully spelled out the minimum building specifications, such as site orientation, acceptable building materials, room size, distances between kitchen and latrine and the distance of both of these from the shop/dwelling, and the distance relationships to other shops and roads.

The priorities of income allocation among African urban place businessmen, local attitudes toward architectural style, and the minimum building and design standards established by the Ankole African Shops and Trading Centre Law have combined to create a landscape sprinkled with urban places characterized by their sameness.

The monotony includes whitewash over mud and wattle walls, corrugated iron roofs, cement slab foundations, and plots and buildings parallel to the main road but at a minimum distance of forty-five feet away from the road with at least ten feet separating the individual shops. A small detached kitchen lies at least ten feet behind the building and a latrine lies at least thirty feet behind the kitchen.

It is debatable to what extent the fore mentioned uniformity of urban places is attributable to the Ankole African Shops and Trading Centre Law. Certainly the law has established minimum standards and thus created an architectural base level to which all urban place units must conform. The use of alternative building designs and

materials would add to the already substantial expense of doing business. Therefore, part of the explanation for uniformity must lie in the attitudes toward income allocation. After a portion of the business income is reinvested in new stock, the businessman is likely to look to his farm and family since the urban place is not regarded as the African businessman's permanent home. Farm and family needs are commonly regarded as higher priority items than are urban place improvements.

From a survey taken among full-time Ankole market traders (admittedly without the need to consider urban place investments), a ranking of their income allocations revealed the following priorities; 1) family maintenance and home affairs, 2) purchase more stock for resale, 3) pay graduated income tax, 4) buy clothing and 5) pay school fees for children. This ranking is indicative of the Banyankore attitude toward income allocation.

Given the rather limited income earned by most African urban place businessmen, there is an absence of substantial surplus cash. It is only where substantial cash surpluses are earned, that individuals may consider investments in the improvement of the business establishment. As was indicated in the discussion of gazetted urban places, this has begun to occur among Asian businessmen in Mbarara.

Africa, (Department of Geography Research Paper No. 128, University of Chicago Press, 1970), p. 75.

Data is unavailable that would permit discussion of Banyankore attitudes toward what may be considered aesthetically pleasing and functionally preferable in terms of urban place design.

Morphology

Everywhere in Ankole most urban places are characterized by a distinctive morphology. With few exceptions, Mbarara being the outstanding example, the urban places are very small and have received little attention from land use planners. Land use patterns are primarily a function of individual whim and the availability of space. Application of zoning concepts is non-existent and any grouping of urban activities into functional areas is the result of such activities being supplementary and/or complementary to each other.

Buildings are aligned parallel along one or both sides of the major access route, be it a motorable road or a foot path. Since most urban places are basically Trading Centers, shop-dwellings comprise the core of the settlement. Within this core, one common complementary activity is regularly reflected in land use relationships. The shop that retails cloth and the service of tailoring commonly go hand in hand so that tailors with their treadle operated sewing machines occupy the verandas and sometimes the inner spaces of such shops. Beyond this simple and expected land use relationship within the core, other uses

are irregularly arranged. Butcheries, restaurants, wholesale storehouses, bicycle and watch repairmen, etc., are interspersed with no discernable pattern among the retail shops of the core.

Additions to this basic morphological unit may be in the form of a periodic market and/or administrative, educational, public health, or religious institutions. Educational and religious institutions, often located on the same site, are the most common non-commercial/residential land use to occur at Ankole urban places. The sites of these institutions are usually detached from the commercial core of the settlement and may be as far as one mile away. Their size varies with their level of sophistication. The pre-primary school is always associated with a religious order and it is common for the school and church to share the same building. Such institutions are also commonly the residence for the local religious leader and teacher.

Full primary schools are larger institutions and are also likely to be associated with religious bodies.

Requiring a larger teaching staff, a full primary school is commonly the residence for three or four families. In some instances the institution also functions as a boarding school and thus serves as a residence for hundreds of young people for a part of the year.

Secondary schools and teacher training colleges are the largest educational institutions in Ankole. They are

all boarding schools and support large faculties whose families reside on the school campus. These complexes are large and sophisticated and are important to the urban place. Their contribution to the economy of the urban place is considerable and their existence is frequently an important economic justification for the existence of an adjacent commercial center.

Another land use that exists at many Ankole urban places is the periodic market. Only two urban places, Mbarara and Ishaka, maintain a daily market where produce can be bought and sold. In addition, however, there are 116 urban places that are also the sites for periodic markets which may be held weekly, twice weekly, monthly or twice monthly. The site of the market place within urban centers is highly variable. In some instances the market places are located adjacent to the urban core while in other cases the market is sited at the edge of the settlement.

Market stalls or even semi-permanent structures exist only at Mbarara. All other markets are simply open ground though often enclosed by a shrub fence. Cattle markets are recognizable by their wooden rail corrals and often a small structure in which the livestock transactions are recorded and certified. Since markets are mostly periodic, and since buyers and sellers may differ from meeting to meeting, markets are considered as single units for purposes of

comparison with other urban forms of land use.

Administrative and public health institutions are still other forms of land use associated with various urban places. Administrative land use takes the form of fifty-six gombolola and saza headquarters which are usually detached from the main commercial core. In fact three gombolola headquarters are the sole form of land use to exist at their settlement. One or more buildings, often including the residences of the government employees, are grouped on a landscaped parcel of land. The buildings are substantial, one-storied, white in color, and often are multi-functional (justice, detention, revenue collection, public meetings, etc.).

Public health institutions take the form of clinic/dispensaries or larger more sophisticated hospitals. Also detached from the urban core, they occupy considerable space and include not only the wards and offices, but also the residential quarters of the employed medical, nursing, and non-professional staff.

Services and Amenities

With few exceptions Ankole urban places are without most common public services. The most common service, public transportation, is available to fifty-one percent of the urban places at least once a day. The urban places sited on main trunk roads are regularly served by bus and/or taxi at least once a day. In addition, taxi service is

regularly available to urban places on many secondary and tertiary roads although usually at less frequent intervals.

Mbarara is the major bus terminal for Ankole and bus service radiates outward from this hub in all directions. In addition, there is a regular bus service from Kigezi District to Toro District which passes through western Ankole and adds an additional major route of service.

Taxi service between urban places is usually more frequent and faster than bus service. Taxis, usually station wagon style vehicles, are privately owned and compete vigorously with buses for passengers over the trunk roads. In addition, taxis may offer service to more isolated urban places, though less frequently.

Except in Wbarara, there are no officially recognized bus or taxi depots or stops in any Ankole urban place.

Where gas stations are present they are commonly recognized as the local taxi station. In other urban places, bars or restaurants may fulfill this function. Elsewhere, potential travelers make their taxi or bus service needs known by standing along the road in the urban place and signalling the driver of the vehicle. If the vehicle is full (uncommon for buses) the driver is unlikely to stop.

The availability of electricity is very restricted in Ankole. Only eleven urban places currently have access to electric power. Even in the eleven urban places so served, relatively few structures are wired for and receive power.

Electricity is expensive and night illumination is widely effected by kerosene lanterns. Electrically driven machines, appliances, etc. are relatively expensive and their use is largely limited to Mbarara. Even the ubiquitous sewing machines are mostly of the foot treadle design, and not powered by electricity. Another factor that limits the distribution of electricity is the regulation of the Electricity Corporation that discriminates against certain housetypes and building materials. The corporation will only provide power to structures that are considered permanent. The restriction specifically excludes the common mud and wattle structured house or shop. Since most African oriented urban places are dominated by mud and wattle structures, electricity supply to these settlements is rare.

Water supply is perhaps the most neglected amenity of the Ankole urban places. Only fifteen urban places in Ankole can claim a piped water supply and even here only Mbarara boasts an effective water pumping complex and an adequate supply of treated water to individual homes and institutions. In the other fourteen settlements with access to piped water, the delivery is usually in the form of stand pipes situtated in central locations within the community. All other urban places must rely on other sources of water, as Table XIV indicates.

TABLE XIV

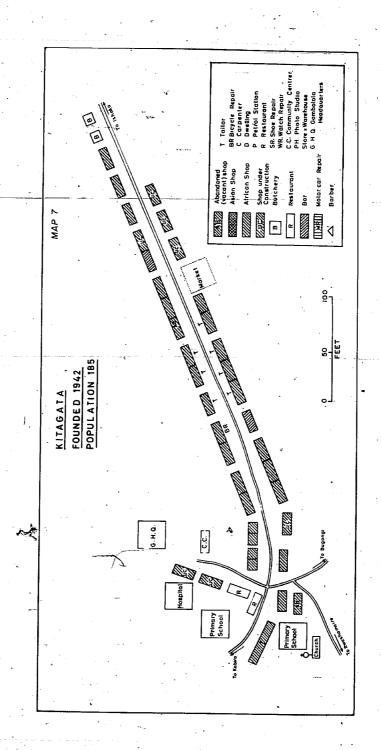
URBAN PLACE WATER SUPPLIES*

• •	SOURCE OF WATER	URBAN PLACES SERVED	A)	PERCENT OF LL URBAN PLACES
•	Wells	148		38.2
4	River and Stream	103		26.2
٠	Boreholes	67		16.1
	Reserviors	40	.,	10.3
÷ 🗫	Piped Water (Treated and Untreated)	15		4.0
	Lake	10		2.5
	Springs	5	•	1.3
-	No Information	<u> </u>		1 0

*Information derived from collected field data.

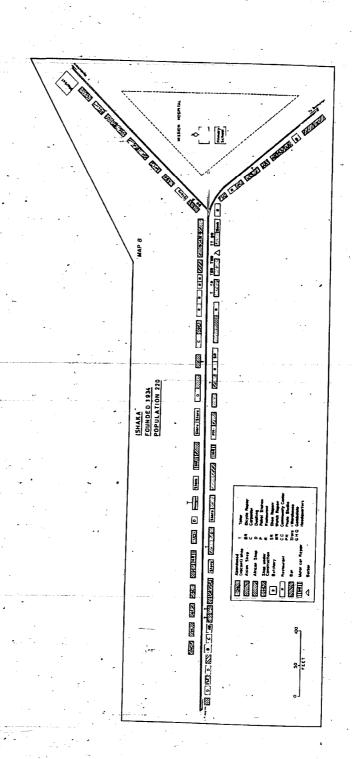
Kitigata

Kitigata is the largest urban place in Kitigata gombolola and the seventh ranking urban place in Ankole. The generalized town plan and mix of urban place functions are easily determined. An African oriented urban place, Kitigata is an important road junction, yet curiously lacks a gas station.



Ishaka

Ishaka, founded in 1934, is the largest urban place in Nyabubare gombolola and is currently the third ranking urban place in Ankole. The generalized town plan and mix of urban place functions suggest the character and design that is common in African oriented urban places that are dynamic in terms of growth. Ishaka is a major road junction situated in the heart of a densely populated and agriculturally productive region.

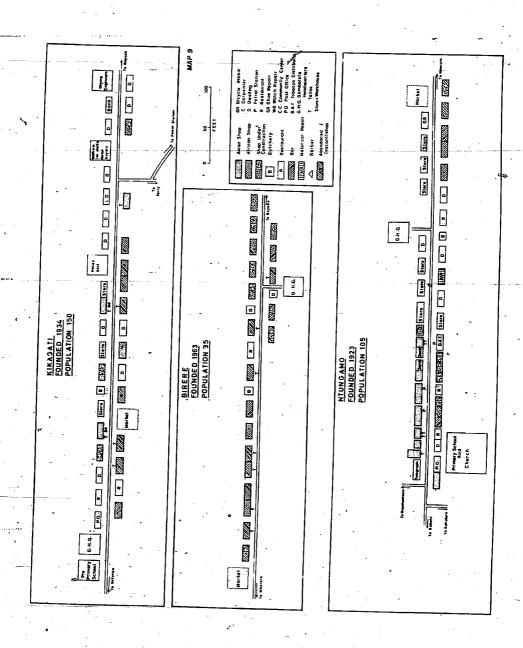


Kikagati, Birere and Ntungamo

Kikagati, the capital and largest urban place in Kikagati gombolola is the 12th ranking urban place in Ankole. Located in southern Ankole, Kikagati is an Asian oriented urban place that was established as a center for servicing the surrounding tin mine operations. Adjacent to the boundary with Tanzania, a border post, road and ferry crossing (Kagera River) and small hydroelectric power station are located nearby.

Birere, the capital and third largest urban place in Birere gombolola ranks 154 among the Ankole urban places. It is representative of a medium sized African oriented urban place sited on a trunk road.

Ntungamo, the capital and largest urban place in Ntungamo gombolola is the twenty-second ranking urban place in Ankole. Originally an Asian oriented urban place, African businessmen have recently become established at Ntungamo. Ntungamo is an important road junction and wholesaling center in Ankole.



Many urban places depend on a combination of sources for water depending on the season and water availability. Wells and boreholes are notorious for their unreliability and boreholes additionally suffer the problem of high mineral salt content. River and stream water varies in quality and purity from place to place and where rainfall has been slight, serious water supply problems are incurred. It is clear that for the residents of most urban places, their water supply is neither purified nor immediately available. Much time is lost as people (often children) are required to haul water from the source to the home.

Functions of Ankole Urban Places

As has been demonstrated, urban places are new cultural features in the Ankole landscape. As in many other societies, they have been created to provide services on a permanent basis to the local or distant populace. These services vary both in type and quantity from one urban place to another. Since these services are the raison detre of the urban place each service serves the function of contributing to the economic and social well being of the settlement. Because the available services in one urban place may be different from what is offered in other urban places, one can argue that different urban places differ in terms of their functional structure and offerings.

At base level one notes that every urban place in Ankole contains at least one function. From this base,

urban places may become more sophisticated by providing an increased quantity of the same function and/or by exhibiting additional and different functions. In many areas of the world the individual function may exhibit different levels of sophistication by employing more people, providing greater amounts of expertise, generating significantly more wealth, care, or units of production, etc. Within the individual recognized functions, this is rarely the case in Ankole. Broadly, the urban place functions may be classified as commercial, religious, educational, and administrative/public.

Commercial Service Functions

The commercial service functions are the most numerous and most widely distributed of all urban place functions. For discussion purposes they may be grouped into three classes: retail sales, retail services, and wholesaling. Retail Sales

Retail sales in Ankole are widespread although the more specialized of these functions are usually limited to the largest urban places, and particularly to Mbarara.

Throughout most of Ankole the retail sales functions generally take one of four forms; the general retail shop, the cloth sales unit, the butchery and the gas (petrol) station.

General Retail Shop

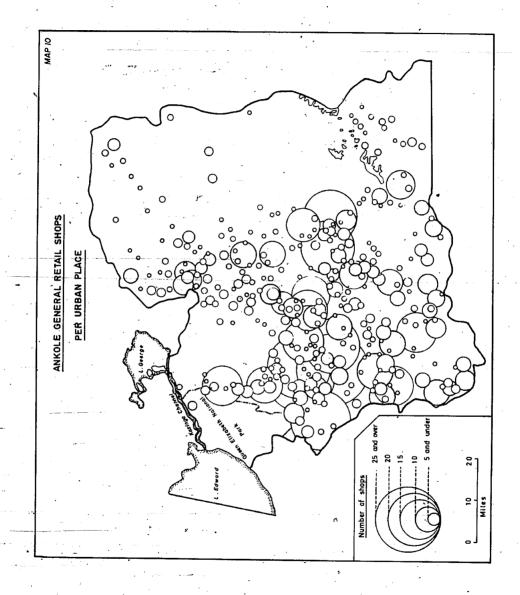
Almost ubiquitous is the general retail shop that

stocks and sells a wide variety of mostly non-durable consumer items (See Map-10). Usually such items are small in-bulk, low in price, and are in general demand by the local African populace. Common merchandise includes such items as salt, sugar, tea, maize flour, kerosene, soap, matches, cigarettes, batteries, thread, notions, cheap cosmetics, and cheap domestic ware. Indeed, there are 1,379 (1969) general retail shops in Ankole, the greatest number of units of all functions. Only sixteen of the 396 urban places lack at least one general retail shop, and eleven urban places contain only a single general retail shop as the lone commercial function present at the settlement.

The general retail shop is usually a very small scale business enterprise. Usually founded and operated by one man, the shop becomes both domicile and site of self-employment. The establishment of a shop involves a substantial capital investment in both construction costs and inventory. Frequently a wholesale merchant, often an Asian at Mbarara, Bushenyi, Ibanda, or Ntungamo, is responsible for financial assistance and the extension of credit to the general retail shopkeeper. The shopkeeper-owner rarely employs additional workers in the store although members of the family may be expected to assist in its operation. Since the shopkeeper usually maintains a nearby farm worked by other family members, basic

Ankole General Retail Shops per Urban Place

As the most ubiquitous urban place function in Ankole, it is of interest to note the distribution of general retail shops. It is the general retail shop that is most regularly patronized by the surrounding rural populace and therefore partially reflects the density of population and availability of cash income in rural Ankole.



subsistence is generally assured even if profits from sales are meager or non-existent.

Cloth Sales Unit

Butchery

The second most common retail function involves the sale of cloth. Outside of Mbarara, the sale of cloth is rarely an individual and specialized activity. Rather the retailing of cloth occurs under the same roof as does general retail sales. Of the 1379 general retail shops in Ankole, 885 or sixty-four percent also sell cloth. In such shops the retailing of cloth may or may not be the basic source of trade income for the general retail shop where it is sold. Competition in the retailing of cloth is particularly intensive and frequently the shopkeeper depends on the retailing of the additional commodities that compose his inventory to sustain his business. The largest market for cloth consists of Ankole women who demand ornate patterns and bright colors. In addition, "Americani" -- an unbleached muslin used for sheeting and khaki cloth are included in the cloth inventory. Usually retailers purchase their cloth from wholesalers in Mbarara or in lesser quantities from Bushenyi, Ibanda or Ntungamo.

The third most common retail function is the sale of butchered meat. The butchery exists as a permanent building but commercial activity within is limited to two, three, or four days per week rather than as a daily

occurrence. Commonly local goats or sheep are the source of the meat being sold. There are 285 butcheries located in 205 urban places. Sixteen of the total 396 urban places find a lone or perhaps two butcheries as the sole retail sales function within the settlement.

Gasoline (Petrol) Stations

The fourth widespread retail sales function is the gas station. The sale of gasoline is a retail activity found in ten urban places in Ankole. Seventeen gas stations, five of which are in Mbarara, comprise the sum of this retail function. All gas stations are located in the more sizeable urban places, all of which are sited on major trunk roads. As may be expected, their distribution reflects the tendency for gas stations to be well spaced along heavily traveled routes (See Map 11). Five of the gas stations are operated by Africans, the remaining twelve being under Asian management.

Gas stations offer little in the way of automotive repair facilities other than the repair of tire punctures and perhaps simple lubrication, or minor adjustments. If the motorist is fortunate, a poorly skilled mechanic who resides nearby may be called upon for assistance. Motor repair and maintenance facilities are more regularly concentrated at garages which are removed from and are distinct from gas stations.

Ankole Distribution of Specialized Retail
Sales and Services

Individual urban places and the mix of their specialized retail commercial functions, both sales and services, are cartographically displayed. Note the
concentration of such specialized sales and services
at Mbarara while Ishaka and Bushenyi form an important
secondary cluster. Note the general absence of specialized sales and services in northern, eastern and
southeastern Ankole.

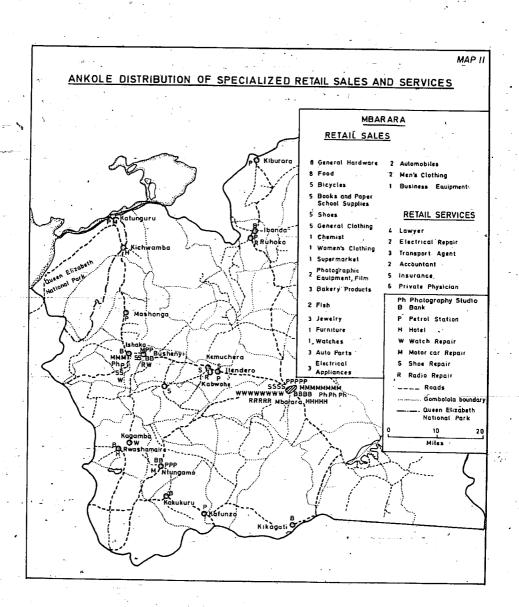


TABLE XV

MBARARA COMMERCIAL STRUCTURE: RETAIL SAL

• ; :	ACTIVITY	***	MBARARA '		BEYOND
		ASIAN UNITS	AFRICAN UNITS	EUROPEAN UNITS	MBARARA
	General Retail	40	10	.0	1339
**	Cloth Retal Sales	45	. 3	0 1	837
•	General Hardware	8	0	0	,
-	Petrol (Gasoline)	. 5	0	0	13
	Food	5	3	0	0
	Bicycles	⇒ 5	ò	0 😅	. 0
	Books & School Supplies	4	1	0	0
,	Shoes	4	L	0	0
	General Clothing	5	0	, .0 ,	0
	Chemist	1	0	. 0	0
	Women's Clothing	1	. 0	0	0
	Supermarket	1	0	0	0
	Photographic Equipment	2	0	0	1
•	Bakery Products	3	0	0	0
•	Jewelry	3	0	0	0
. :	Furniture	1	0		0
	Auto Parts	3	. 0	0	" · 2
	Electrical Appliances	3	2	0	0
	Fish	0.	2.	0	0
1	Butchery	0	4 - 1	0	281
	Automobiles	. 2	0	0	. 0
	Men's Clothing	2	0	0	0
. 1	Business Equipment	- <u>1</u>	0	0	0
	The second secon	**************************************	•		
1	POTALS 1	.44.	26	o	2473

Data Collected in the field. 1968.

Other Retail Sales Functions

Other retail sales functions (except for periodic markets) are concentrated at Mbarara. As the largest urban place which contains the greatest range of retail functions, Mbarara is the focus for the retail sale of sophisticated and specialized higher priced consumer goods. (See Map 11 and Table XV).

Retail Service Functions

Retail services are also widely distributed in Ankole and include a wide range of activities. Again Mbarara offers the widest range and the most sophisticated levels in terms of services performed (See Map 11 and Table XVI). Beyond Mbarara, retail services are fewer in type, smaller in scale, and simpler in terms of equipment used, quality and reliability of service performed and quality of the establishment at which the service is offered.

Tailoring

Tailors are usually associated with, and practice their trade at a general retail shop that specializes to some degree in the retail sale of cloth. In fact the sewing machines may be owned by the shopkeepers who in turn may either hire tailors or rent the machines to enterprising tailors expecting piece-meal jobs from shop customers. The sewing machines, invariably foot powered, line the verandas of the cloth retail unit shops where the

mostly male tailors are busy stitching and gossiping.

Though some tailors reside in urban places, a large proportion live on farms near the settlement where they work.

Tailors in Ankole number 1046 and at least one tailor is found in 308 or almost eighty percent of the urban places.

Bars

Bars are the second most widespread retail service function in Ankole. A total of 196 bars operate in 133 or 34% of the urban places. Bars in Ankole serve multiple purposes. They have a partial retail function in that they sell beverages to customers. More importantly, they function as service establishments, for they are local gathering places for conversation, are refreshment stops for travellers or workers finishing a day's labor, and are contact points where prostitutes may find clients.

Most of the bars stock only soft drinks and bottled beer. Some bars sell local beer (fermented millet or banana mash) although there is a thriving trade in these beverages away from the urban place and consumption is heavy at home. Only the bars in Mbarara and at Kichwamba stock spirits or wines, for these bars cater to persons who have cultivated European drinking tastes. Kichwamba's bar is associated with a tourist hotel overlooking the Queen Elizabeth National Park.

In three urban places, bars are the only commercial function present. In ten other urban places they are the

sole commercial service function to be present (commercial retail sales functions may be present).

Restaurants

Restaurants (known locally as "hotels" although they have no accomodation function) number seventy-nine and are found in forty-four or eleven percent of the Ankole urban places. Most restaurants are found in the larger urban places and, like the bars, they provide the service of quick refreshment. All restaurants are in urban places located along major trunk roads, usually in settlements that function as regular stops for the buses and taxis. Much of the trade is dependent on travelers waiting to make transport connections.

Bicycle Repair

The repairing of bicycles is a particularly important function in an area where so many people depend on this means of transportation. There are 169 bicycle repairmen operating in 106 or in twenty-seven percent of the Ankole urban places. A small number of repairmen have their own shops, but the majority use the veranda of a local general retail shop (which is likely to sell bicycle parts) or a bar as the site for their repair activity. Most bicycle repairmen are not well trained and engage in other activities (such as farming) as well.

Bicycle repairmen also frequent the periodic markets of Ankole. Potential customers in need of repair work may

thus elect to wait for a market day rather than journey to an urban place where a permanently established bicycle repair service is found. The general attraction of the market may be compelling enough to delay the needed repair. Banking

The banking function is available at nine banks in . seven urban places in addition to four large parent banks in Mbarara. Outside of Mbarara, banks operate regularly, but not daily. They exist as branches of their parent banks in the district capital and are open for business on only one or two days per week. Even then, banking hours are limited to two or three per day.

The major banks of Ankole have made efforts to interest the local populace in establishing bank accounts, but with little success. In addition to the expected problem of small cash incomes and therefore little surplus for savings, the people are so rural that even the urban place population (outside of Mbarara which has less than two percent of the Ankole population) does not have convenient access to the banks which are open for a few hours on particular days. The few existing banks; therefore, find few potential clients.

The nine banks away from Mbarara are all centered in larger urban places (See Map 11), and are important to the businessmen and employees of the nearby educational, religious and governmental institutions located nearby.

Use of these outlying banking services saves time and effort, and the expense that would be incurred in travel to and from Mbarara for such service.

Other Retail Service Functions

Other retail service functions find relatively few participants. There are thirty-four carpenters in twenty urban places, twelve shoe repairmen in six urban places, seventeen barbers in five urban places (five barbers are in Mbarara), eight watch repairmen (five of which are in Mbarara), three photographic studios, (of which two are in Mbarara), and seven hotels of which five are in Mbarara (See Map 11).

Shoe repairmen, watch repairmen and barbers also frequent the periodic markets and thus compete for business that might otherwise be entirely directed toward the urban places where these functions are established. Hotels and banks are the only retail functions where European management is present. Europeans manage a hotel at Mbarara, a hotel at Kichwamba, and the banks at Mbarara.

As indicated earlier, Mbarara is the one urban place where retail service functions are more varied and sophisticated. Table XVI reflects this increased sophistication. Seventeen different commercial retail services are available from 151 service units.

It is clear that Mbarara is the deminant retail center for Ankole. There are forty different types of retail

TABLE XVI

MBARARA COMMERCIAL STRUCTURE: RETAIL SERVICES

	ACTIVITY	•• • • • • • • • • • • • • • • • • • •	MBARARA		BEYOND MBARARA
•		ASIAN- UNITS	AFRICAN UNITS	EUROPEAN UNITS	3
	Tailoring	5	64	0	983
*	Bar	5	1	1	190
	Hotel	3	1	1	2
	Restaurant	6	2	r	74
	Attorney	3	1.	0	Ö
	Radio Repair	2	. 3	0	1
	Watch Repair	3	5	0	3
	Barber	1	4	0	
•	Electrical Repair	1	1	0	0
	Transport Agent	· 3	0	0	- 0
	Accountant	2	0	Q	0
	Insurance	4	1	0	0
•-	Bicycle Repair	0.	5	0	172
	Private Physician	6	0	0	0
	Shoe Repair	3	and the second consistency and the second control of the second co	0	
	Automobile Repair	7	1	. 0	8
	Banking	0	0	3	10
- T.	,				
	TOTALS	54	91	6	1466

Source: Data Collected in the field. 1968.

sales and services offered in 321 service establishments/
units (one tailor equals one unit although three or four
tailors are likely to operate at the same establishment).

Many of these sales and services are present only in
Mbarara and count the entire district and beyond as their
service or sales trade area.

Wholesale Functions

Wholesale trade in Ankole is in a marked stage of transition. Traditionally wholesale trade has been entirely in the hands of non-Africans --i.e. Asian merchants. Asian merchants in Mbarara were engaged in supplying the smaller scale African merchants with their stock. In the same way Asian wholesale merchants bought up the bulk of the produce that African farmers wished to sell for cash. Thus Asian merchants in Ankole were the first link in the wholesale to retail chain for the marketing of coffee, groundnuts and other crops.

As Asian merchants became established in gazetted trading centers beyond Mbarara, wholesale functions were partially relocated accordingly. Bushenyi, Ntungamo, Rwashamaire and Ibanda were particularly important as sub-wholesaling centers.

By the decade of the 1960's, changes began to appear in the patterns of wholesale buying. Quasi-government corporations, cooperatives, and individual African businessmen began to buy produce directly from the farmer. The wholesaling function began to expand spatially and operated at selected African oriented urban places as well as at the traditional Asian oriented urban place.

Only in the late 1960's and in 1970 did a shift in control over the wholesaling of non-durable consumer goods begin to relocate this activity into African hands. Recent government legislation has restricted the wholesaling of non-durable goods to Uganda citizens only. Since many of the non-African wholesalers are non-Uganda citizens, we may expect the wholesale function to be increasingly absorbed by Africans. The question to be asked is; where will the African wholesaler locate his activity? So far the evidence (limited to conversation and observation) suggests that the new wholesalers will locate in the already established Asian oriented urban places.

As of 1969, 198 wholesale units operated at 102 urban places in Ankole. The great majority of these were buyers of produce, primarily coffee and groundnuts, but also maize, millet and beans. The wholesaling of non-durable consumer goods was largely limited to the more sizeable Asian oriented urban places and particularly to Mbarara.

Markets

Markets are enigmatic features of Ankole urban places for they are partially responsible for the limited economic growth of numerous settlements, while contributing markedly to the commercial success of others. There are 140 markets distributed across Ankole of which 118 are at or adjacent to urban places and are thus included as one of the urban place functions.

Periodic markets are considered by the local populace as the preferred place to buy and sell goods and services. The monthly and twice monthly ('cattle') markets are considered more attractive and important than weekly markets, partly because of their infrequency and, hence, greater novelty. Markets usually attract great numbers of people (800-2,500 at the monthly markets⁸), provide a wide variety of goods and services, and are major events on the social calendar for one or more gombololas. Apart from considerations such as low purchasing power and restricted demand which influence the frequency of cash expenditure, many local people appear to deliberately delay purchases which could be transacted at a nearby urban sales or service establishment until a market (usually monthly or twice monthly) occurs.

This behavior pattern frequently operates to the detriment of certain urban place commercial functions, as the markets effectively duplicate many of the commercial sales and services of the urban places and have features that make them more attractive to the typical consumer.

On market day it is evident that the general retail shops

⁷<u>Ibid</u>. p. 34.

⁸<u>Ibid</u>. p. 45.

and cloth sales units in the vicinity find it difficult to compete successfully against the price differentials and social exchange of the market. These advantages which local consumers associate with markets are not limited to Ankole and are succinctly described in a recent study of trade in Tanzania:

". The African customer, who may make very few purchases from a trader of any sort in the course of a year, prefers to do his shopping in a familiar open market, with the goods laid out on the ground for him to see. Instead of going into a shop and having to ask an often gruding shopkeeper to bring down goods off his shelves, the shopper can wander among the display of goods laid out by the hawkers and see exactly what is available. He feels much more at ease. When walking into a shop he immediately feels at a disadvantage with respect to the shopkeeper on the other side of the counter, while in the market he feels able to deal on more or less equal terms."

Conversely, certain urban places benefit immensely from the presence of a market (particularly a monthly or twice monthly 'cattle' market). It is apparent from field observation and supporting evidence by other research that for those urban places that are associated with markets, that the commercial peak business activity is most intense on market day—which may occur from one to four times per month. It is even the practice of some

⁹H.C.G. Hawkins, Wholesale and Retail Trade in Tanganyika. (Praeger, New York, 1965), p. 70.

¹⁰T.B. Kabwegyere, "The Growth of a Trading Centre in Rural Ankole: Ishaka," (Department of Sociology, Makerere University College, 1968), Sociology Working Paper 51. pp. 2-4. (Mimeographed).

shopkeepers to close their doors on market day and "carry" their trade into the market place. Shops that remain open (particularly service establishments such as bars, restaurants and repair facilities) attract far more customers by virtue of the market than is the case on non-market days. The settlement of Ishaka with its monthly market as studied by Kabwegyere offers an example of such conditions:

"Ishaka attracts hundreds of people from all corners and from as far away as Masaka and Kasese. It is a cattle market in addition to all types of agricultural produce, poultry, furniture and merchandise. The market offers much more than Ishaka trading centre can manage. In fact some of the shopkeepers in Ishaka close their shops or leave their wives in them and take their stock to the market. One of the shopkeepers in Ishaka who had spent the whole day in the market told me 'I have made 700/ today.' Such turnover cannot be expected on any other day in Ishaka. The trading centre as a whole is busiest on this day. The restaurants and bars are extremely busy on this day."11

Educational And Religious Functions

At multiple levels, schools have proliferated throughout Ankole since the earliest mission schools were established at Mbarara at the turn of the century. Though not
all schools are located immediately within the urban place,
the great majority are within a one mile radius of an
urban place. In fact, the criterion by which a school is
considered to be a contributory function of an urban place
is that its site must be within a one mile radius of the

^{11&}lt;u>Ibid</u>. p. 6-7.

settlement.

The growth pattern of educational institutions in Ankole reflects the growth pattern of Christian missions. In most cases an educational institution was established by, is operated by, and is located on the same site as the related religious institution. Schools and religious buildings vary widely in their size, quality of construction, sophistication of activity, competence and professional level of workers, and arrangements concerning residence for students and teachers.

Educational establishments (348 schools at all levels) are located in 292 or in 74% of the urban places in Ankole. One should not, however, be misled as to the seemingly widespread availability of education to Ankole youth. Education in Ankole is not free and universal. At all levels pupils must pay tuition, pay for their books and equipment and, as it is frequently required, pay for a school uniform. By American standards, enrollment totals and faculty numbers are low. Furthermore, investment in the maintenance and repair of school facilities is absolutely minimal with most labor being supplied by the pupils and faculty themselves. At the higher levels of education students usually reside on campus during the school year, while at all levels of education most of the faculty reside on the campus in individual faculty dwellings. The consequence of such educational patterns is a

general absence of school employees and students as residents in the adjoining urban place and only a limited presence of commercial functions that may be oriented to-ward servicing the needs of the school, its faculty or its students. Only at the highest levels of education (thirteen schools) does the urban place maintain certain a services oriented, at least partially, toward the educational institution.

Educational institutions in Ankole operate at four levels, each higher tier composed of fewer individual institutions. Most numerous are the pre-primary schools which are operated by the various religious bodies and provide most Ankole youth with their first experience in a formal classroom. There are 184 pre-primary schools at 165 urban places that offer the equivalent of a kindergarten through second grade education. Such schools are usually one or two room structures in which both religious and educational activities are effected by the same individual teacher-clergyman. These institutions offer little in the way of facilities, materials, or qualified teachers. Nevertheless, in an attempt to obtain even a minimum formal education for their children, Ankole parents will enroll them in pre-primary schools when full primary school enrollments are over-subscribed or when they are unable to afford the costs of a full primary school. The students and faculty of pre-primary schools contribute

little toward the support of the commercial services located in the adjacent urban place.

The full primary school, which offers the equivalent of a first through sixth grade education, occupies the second tier of the educational ladder in Ankole. There are 116 full primary schools located in 151 urban places throughout the district, only a few of which are boarding institutions for students and faculty. For most Ankole children, formal education ends at the primary level. More sophisticated, involving more students and faculty, and receiving a more regular and reliable income than do the pre-primary schools, the full primary schools contribute to a limited degree toward the support of commercial services in the adjacent urban places.

Secondary education is quite restricted in Ankole with only a small percentage of the primary school leavers matriculating to higher levels. Secondary education takes two forms in Ankole. Six teacher training colleges in four urban places accept primary school leavers and prepare them to return as teachers at the primary school level. Seven senior secondary schools are located in six different urban places (though three schools are in greater Mbarara) to satisfy the needs of the Ankole population. Senior secondary schools may be considered to extend from grades seven through twelve although they may also include a subsequent college preparatory two year course of study.

Secondary institutions are usually boarding schools for the students and they provide on campus housing for their faculty and maintenance staffs. It is at this level that the educational institution may require the services available at adjacent urban places. The commercial sales and service functions of greater Mbarara receive substantial support from the students and faculties of the three senior secondary schools and teacher training college located there. As is so true for the other functions, Mbarara is the major center for education in Ankole.

Administrative-Public Services

Public services, usually administered by governmental agencies, comprise additional functions that may be sited at urban places. Where present, they augment the functional complexity, size, and sophistication of the settlement. Administrative-public functions may be grouped into four divisions, the most ubiquitous of which is the administrative headquarters of a political sub-division within Ankole.

Mbarara is, of course, the administrative center for the entire district of Ankole and as such maintains the most complex and sophisticated institutions of government. In addition to the Ankole district offices that administer all facets of government at the district level, there are selected federal offices through which the Uganda government exerts its authority and meets its obligations to the

people of Ankole. Still another administrative level of government includes the Mbarara township authority and its offices which govern the area within the town limits. Collectively, these three levels of government employ numerous persons, account for a conspicuous territory (functional area) where the buildings of government are sited, and contribute to the economic, social, and cultural well being of the city as well as the district.

Ankole is sub-divided into ten administrative subunits known as sazas. Each saza has an administrative
headquarters from which Ankole government policy is executed
and from which more local and regional policies and
functions of government may be implemented. As there are
ten sazas, ten urban places contain the function of
government administration at this level and may be identified as saza capitals.

Some, but not all of the largest urban places are saza capitals. At the same time it is interesting to observe that not all saza capitals are among the more sizeable settlements in the district. The implication is that size of urban place alone does not necessarily infer that administrative functions are present. (See Tables XVII and XVIII).

Saza chiefs, appointed by the Ankole district government, live at and form the focus of the saza headquarters complex. The headquarters complex is the site where saza

TABLE XVII

	SAZA CAPITALS RAN	RANK BY	
SAZA	SAZA CAPITALS	POPULATION	SIZE (ALL URBAN PLACES)
Igara	Bushenyi	400	2
Kajara	Rwashamaire	223	. 3
Mitoma	Ibanda	178	8
Kashari	Bwizibwera	111	20
Nyakasharara	Kiruhura	. 97	33
Buwehju	Nsika	85	35
Shema	Kabowhe	58	71
Rwampara	Kinoni	37	139
Bunyaruguru	Ndekye	28	181
Ishingiro	Gayaza #2	12	310

council meetings are convened and other local or regional meetings may be held. Also, local judicial matters are decided, small scale jail facilities exist, an informal postal holding service operates, and revenues are collected and recorded. The presence of the administrative function contributes to the well being of the commercial services in the immediate or nearby urban place. Ndekye, Kinoni, Kabowhe and Nsika are near, or adjacent to, the urban places of Ryeru, Nyakafunjo, Itendero and Rwengwe respectively.

The sazas are sub-divided into smaller administrative units known as gombololas. The number of gombololas per saza varies from two (in Bunyaruguru) to seven (in Igara). In total there are forty-seven gombololas, forty-six of which support a gombolola headquarters which may or may not be the sole function sited at the settlement. With functions similar to the saza headquarters, gombolola headquarters vary greatly in size, sophistication and range of government services performed.

Four gombolola headquarters exist as the sole function at their respective urban places. Their sites lack commercial, educational, or other supportive functions. Again it may be noted that the size of an urban place alone is a poor indicator of the presence or absence of administrative functions. (See Table XVIII).

Medical functions comprise another primarily

TABLE XVIII

SAZA	GOMBOLOLA CA	PITALS RANKED BY I GOMBOLOLA CAPITAL I	POPULATION POPULATION	RANK BY SIZE (ALL URBAN PLACES)
Shema	Kitigata	Kitigata	185	7
Isingiro	Kikagati	Kikagati	150	12
Igara	Mitooma	Mitooma	145	13
Kajara	Bwongyera	Nyamanuka	135	16
Kashari	Rubindi	Rubindi	132	18
Igara	Kyeizoba	Rwentuha	120	19
Rwampara	Ntungamo	Ntungamo	105	22
Nyabashozi	Kenshunga	Kiruhura	97	30
Ka jara	Rubaare	Rubaare	95	32
Rwampara	Ruhama	Ruhama	95	32
Igara	Bugarama	Bugarama	93	34
Igara	Kyamahunga	Kyamahunga	93	34
Shema	^ ∟ Shuku	Kishabaya	'87	38
. Buweh ju	Rwengwe	Rwengwe	8 5	39
Igara	Nyababuare	Nyabubare	83	41
Isingiro	Ngarama	Ngarama-Katwe	83	41
Nyabashozi	Kazo	Kazo	83	41
Rwampara	Ndai ja	Ndai ja	77	47
Shema	Kabira	Nyababare	7.5	48
Nyabashozi	Kinoni	Kasana-Kinoni	70	53
Rwampara	Bugamba	Bugamba	70	53
Igara	Bitereko	Bitereko	69	59
Mitooma	Bisheshe	Bisheshe	69 -	59
Mitooma	Nyabuhikye	Nyabuhikye	69	59
Buweh ju	Rukiri	Rukiri #1	64	71
Buweh ju *	Karungu	_ Karungu	63	78
Ka jara	Ihunga	Kagarama (Ihunga	a) 62	79
Bunyaruguru	Ryeru	Ryeru	58,	82
Shema	Kigarama	Kigarama	58	82

TABLE XVIII (CONT'D)

	SAZA	GOMBOLOLA	GOMBOLOLA CAPITAL	POPULATION	RANK BY SIZE (ALL URBAN PLACES)
	Kashari	Bubaare	Bubaare	58	82
	Mitooma	Kanoni	Kanoni	58	82
	Isingiro	Kabingo	Gayaza #1	51	101
	Nyabashozi	Kashongi	Kahsongi	48	112
	Rwampara	Rukoni	Rukoni	46	120
	Bunyaruguru	Kichwamba	Kichwamba .	45	123
	Rwampara	Rugando	Mirama-Rugando	42	140
	Isingiro	Rugaga	Rugaga	40	143
	Igara	Bubeire	Bumbeire .	37	149
	Isingiro	Birere	Birere	35	154
1	Shema	Kagango .	Kabingo	32	167
	Mitooma	Buremba .	Buremba	30	176
	Kashari	Kakiika	Kakiika	25	203
	Buweh ju	Burere	Burere	12	321
	Mitooma	Rukiri	Rukiri	12	321
	Kashari	Rwanyamahembe	Rwanyamahembe	12	321
	_Kashari	Rubaya	Rubaya	12	321

governmental-public service that may be located at the various urban places. In Ankole medical care is available at four levels of practice. The private practice of medicine by licensed physicians is limited to Mbarara where six non-African physicians (Asians) maintain offices.

Larger more public medical institutions include four religiouly oriented mission hospitals and sixteen government operated clinic-dispensary facilities. Two hospitals are located in Mbarara. Thus, twenty urban places maintain hospitals or dispensaries. The various medical institutions play an important role in the support of the urban places in which they are located. They employ sizeable staffs that add to the purchasing power of the local populace and they are magnets as they draw in rural residents from a considerable distance, some of whom will also contribute to the support of town sited commercial services.

As is clear from Table IXX the largest urban places (ranks 1, 2, 3, 4, 6, 7, 13, 14, and 20) include the medical function among the services that they offer. These urban places were early administrative and/or mission centers and acquired medical facilities early. As nearby urban places grew in commercial importance, medical functions were not duplicated even though the size of the urban place may have suggested such a development. Furthermore,

TARLE TXX

MEDICAL FACILITIES AND URBAN PLACES

GOMBOLOLA	URBAN PLACE	POPULATION	RANK BY POPULATIO (ALL URBA PLACES)	N MEDICAL FACILITY	
	Mbarara	5,000	1 .	2 Major hospitals;	
•		•		6 private physicians	
Bumbeire	Bushenyi	400	2	Dispensary	
Ihunga	Rwashamaire	223-	3	Dispensary	
Nyabubare	Ishaka	220	4	'Hospital	
Nyabuhikye	Kagongo	200	6.	Hospital	
Kitigata	Kitigata	185	7 .	Hospital	
Mitooma	Mitooma	145	13	Dispensary	
Ryeru	Nyakasharu	141	14	Dispensary	
Rwanyamahembe	Bwizibwera	111	20	Dispensary	
Kenshunga	Kiruhura	. 97	30	Dispensary	
Rubaare	Rubaarë	95	32	Dispensary	
Rwengwe	Naika (Rwengwe)	85	35	Dispensary	
Kabingo	Mabona	80	45	Dispensary 1	:
Kagango	Kabowhe-Rutooma	71	50	Dispensary	
Nyabuhikye	Ruhoko	67	63	Clinic	
Ihunga	Kagamba	66	64	Clinic	
Rukoni	Kitwe	65	67 [°]	Dispensary	
Rugaga	Zuru	60	80	Dispensary	
Rugando	Nyakafunjo	··· 55	89	Dispensary	
Kabingo	Kibwera #1.	40	143	Dispensary	

most medical institutions are located at saza or gombolola capitals where it is an easier matter to appropriate land for a governmental institution.

Postal service is an additional function that exists at selected Ankole urban places. Thirteen urban places in Ankole have commissioned post offices where normal postal service and transactions may be expected. In addition, the various gombolola headquarters and even a few mruka headquarters function as repositories for letters where senders may leave mail to be conveyed to the regular post office for processing and local residents may receive home addressed mail. The postal system in Uganda does not maintain a door to door delivery system.

The final and perhaps a dubious public function centered in urban places is the availability of electric power. Although urban places do not in fact dispense electricity to the rural surroundings, the mere fact of electric power availability suggests increased sophistication of services. Power to operate machines, incandescent lights and appliances potentially presents such amenities to the rural dwellers who may seek their benefits. The urban place becomes the focus of such attention. Generated by a hydroelectric facility at Kikagati and a diesel power plant at Mashonga (established to supply power to an adjacent tea processing factory), Mbarara plus nine other urban places receive electricity.

TABLE XX

POST OFFICES AND URBAN PLACES

· ·			•
GOMBOLOLA	URBAN PLACE	POPULATION	RANK BY POPULATION (ALL URBAN PLACES)
	Mberara	5,000	1
Bumbeire	Bushenyi	400	2
Ihunga	Rwashamaire	233	3
Nyabuhikye	. Ibanda	178	8
Kikagati	Kikagati	150	12
Ryeru	Nyakasharu	141	14
Rwanyamahembe	Bwizibwera	111	20
Ntungamo	Ntungamo	105	22
Rubaare	Rubaare	95	32 -
Kagangò	Kemuchera	93	35
Rwengwe	Butare-Kashenyi	62	51
Kabingo	Gayaza #1	51	101
Rubaare	Rwentobo	45	123
	· .	A description	

Summary.

Form and function in Ankole urban places may be regarded as expected and rather pedestrian. The governmental approach toward controlling settlement design and building materials along with limited economic means and perhaps, local attitudes toward style and fashion, have combined to limit urban initiative, architectural creativity and the aesthetic appeal (the writers bias) of the various settlements under study. Uniformity in appearance is a common denominator in the characterization of Ankole urban places.

Even if aesthetically unappealing, the Ankole urban places do function as relatively sanitary and orderly places in which to live while engaged in the provision of sales and services. Embodying what may be regarded as European introduced concepts of sanitation and public health technology, the African character of the urban places is limited to the use of mud and wattle materials, the periodic operation of market places, and the nature of the population itself.

Functionally, the urban places are important as focal sites for the various services required by the Ankole populace. It is not surprising that manufacturing is almost entirely absent as an urban place function in Ankole. Craft work continues in the rural hinterland and is distributed through the periodic markets while more modern

forms of production are centered in the larger cities of Uganda (specifically Kampala and Jinja).

In general we can note that the available functions at Ankole urban places are characteristic of areas where the local populace is only beginning to emerge from a traditional subsistence economy, where cash wealth is limited and where commerce is permitted to operate under a relatively free enterprise system.

CHAPTER V

CENTRAL PLACES AND ANKOLE

Notions and studies about central places and central place systems have proliferated since 1933 when Walter Christaller introduced to the literature such concepts. The available literature concerning central place ideas is vast, exists in many languages and demonstrates that many areas of the world have been examined for their conformity, or lack of it, with central place theories. 2

A brief synthesis of the central place propositions as offered by Berry and Pred include the following: 3

1) The basic function of a city is to be a central place providing goods and services for a surrounding tributary area. The term "central place" is used because to perform such a function efficiently, a city locates at the center of minimum aggregate travel of its tributary area, i.e. central to the maximum profit

Christaller, W., <u>Die Zentralen Orte in Suddeutschland: Eine Okonomisch-Geographische Untersuchung uber die Gesetzmassigkeit der Verbreitung und Entwicklung der Siedlungen mit Stadtischen Funktionen. Jena: Gustav Fischer Verlag, 1933. Translation is available by C. Baskin, <u>The Central Places of Southern Germany</u> (Prentice Hall, Englewood Cliffs, 1966).</u>

²Berry, J.L. Brian, and Pred, Allen, <u>Central Place</u>
<u>Studies</u>, <u>A Bibliography of Theory and Applications Including Supplement Through 1964</u>. Bibliography Series Number
One with Supplement. Regional Science Research Institute.
GPO Box 8876, Philadelphia. 1961, 1965.

³<u>Ibid</u>., p. 3-4.

- 2) The centrality of a city is a summary measure of the degree to which it is such a service center: the greater the centrality of a place, the higher is its "order."
- 3) Higher order places 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.
 - 4) 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. Moreover, low order goods are provided by establishments with relatively low conditions of entry. Conversely, high order places provide not only low order goods, but also high order goods sold by high order establishments with greater conditions of entry. These high order goods are generally "shopping goods" for which the consumer is willing to travel longer distances, although less frequently. The higher the order of goods provided, the fewer are the establishments providing them, the greater the conditions of entry and trade area of the establishments, and the fewer and more widely spaced are the towns in which the establishments are located.

Ubiquity of types of business increases as their order diminishes. Because higher order places offer more shopping opportunities, their trade areas for low order goods are likely to be larger than those of low order places because consumers have the opportunity to combine purposes on a single trip and this acts as a price reduction.

5) More specifically, central places fall into a hierarchy comprising discrete groups of centers. Centers of each higher order group perform all the functions of lower order centers plus a group of central functions that differentiates them from, and sets them above, the lower order. A consequence is a "nesting" pattern of lower order trade areas within the trade area of higher order centers, plus a hierarchy of routes joining the centers.

Central Place Studies and Tropical Africa

In spite of the world wide attention that central place ideas have received, their application to the African scene has been very recent, and studies are not at all numerous. In tropical Africa, the most detailed attention has been given to West Africa where central place type studies have been effected in Ghana⁴ and Nigeria.⁵ Beyond

⁴D. Grove and L. Huszar, The Towns of Ghana, (Universities Press. Accra. 1964):

⁵Abiodun, Josephine Olu, "Urban Hierarchy in a Developing Country," Economic Geography, XLIII, No. 4 (October 1967), pp. 347-67.

service needs.

Furthermore there is little variation in terms of scale, particularly as regards commercial units. Usually one cloth retail sales unit is very similar to another -- about the same number of employees, same floor space, similar quality of stock, and similar merchandising techniques (variations do occur between African and Asian services of the same function).

. The Central Places of Ankole

Central places and urban places in Ankole are synonomous and can be defined by the functions that they perform. Historically, it was increased agricultural productivity in economically developing countries that released a portion of the farming population to meet the demands for specialized services that the more affluent farming population came to require. This process of transforming the economy from a pattern of subsistence to one involving cash sales and exchange is still underway in Ankole. To varying degrees, the range of services that are offered are only partially the consequence of uncontrolled economic forces. Conscious planning and guidance have increasingly been applied to the development of the cash economy and this is particularly evident in the location and operating procedures for the markets and central places in Ankole.

As the exchange of agricultural, mineral or fish surpluses for new commodities or services becomes central

West Africa, only in East Africa has there been an attempt to apply central place ideas. A study by Kamalamo and Ponzio, in contrast to Christallers' emphasis, almost wholly ignores commercial services and emphasizes governmental, educational, and public service functions as critical to centrality.

In the West African studies the research is sophisticated and profitable but encounters difficulties that have bothered researchers in other parts of the world. Specifically, the central places of Ghana and Nigeria are at the same time residential settlements for much of the local farming population. It has proven difficult to determine what proportion of the services are directed toward the full-time and part-time dwellers and thus are not truly central place functions oriented toward a surrounding rural territory and its population

Since the Ankole situation is one of a totally dispersed rural population not at all resident in the urban places, the study conditions are not distorted or obfuscated. We have, therefore, an almost ideal study environment. As Christaller would have it, the urban places are central places almost completely unencumbered by manufacturing, mining, or large numbers of service employees, or by retired persons who look to the central place for their

⁶P. Kamalamo and M. Ponzie, "Application of Central Place Theory in Mengo and Busoga Districts (Uganda)," Paper No. 396, Makerere Institute of Social Research, December 1965. (Cyclostyled).

or at least of increased importance to economic life, the place of exchange (markets or central places) becomes central to the spatial organization of the economically developing areal unit. Both for reasons of economy and the establishment of governmental guidelines, the addition of new administrative, educational and commercial services are increasingly concentrated at nodal points of exchange. These nodal points of exchange are then labeled as urban places while functioning as central places within a system of central places.

The central place and the surrounding rural landscape from which people seek services at the central place offer a complementary relationship. When this complementary relationship is added to all the other such complementary relationships that exist in the area, an organizational unit can be recognized in which a hierarchy of central places exists for the performance of administrative, educational and commercial services. In this study, Ankole is recognized as the organizational unit.

For the most part, Ankole is a self-contained unit in that the services provided by the central places are offered to and maintained by the Ankole population. Only the largest central place, Mbarara, offers services beyond the Ankole organizational realm. Though it is characteristic in economically advanced states for the larger cities to offer services and activities that serve more than the

local region (i.e., manufacturing for national distribution or transport break of bulk site for national distribution), Mbarara simply offers services that are periodically patronized by the populace of neighboring Kigeza district and by travelers who find Mbarara a convenient stopover between the Kampala terminus and the western district of Toro or the southern district of Kigezi and Rwanda beyond.

Central Place Functions in Ankole

This aspect of the study is concerned with urban places in their relationship with their complementary regions and with each other, in other words, with their centrality within Ankole. We can view the services available at a center in terms of the quality (variety and sophistication) and quantity. Boesch seems correct in stating that the "quality of the services available in a locality defines its degree of centrality while the quantity of the services available is in general only a function of the number of people served."

Quality of services in terms of variety and sophistication requires explanation. Variety refers to the number of different types of services (functions) that are available. For Ankole there are fifty-six functions being performed in central places of which sixteen are available only at

⁷H. Boesch, "Central Functions as a Basis for a Systematic Grouping of Localities," <u>International Geographic Union</u>, 17th International Geographic Congress, Abstracts of Papers, Washington, The National Geographic Society, (1952), p.7.

Mbarara. Sophistication refers to variations within the performed functions. In educational services, for example, there are four functional levels of education being offered, each distinguished by the elaborateness of the physical facilities, size of student body and faculty, and standard of education already achieved by both students and faculties. As the level of education increases there is a corresponding decrease in its frequency of occurrence, an increase in the number of students served per school, and an increase of students being drawn from wider geographical areas. At the upper level are the senior secondary schools and teacher training colleges which may enroll some students who live beyond the Ankole boundary.

It seems clear that the higher the quality of the services in a central place, the larger its service or tributary areas will be. Thus the wider variety of services will enhance the centrality of the urban place. The smaller the variety of services in an urban place, the more places are likely to compete for partial leadership within an area. Consequently such places are likely to have a low index of centrality and will probably serve fewer people in their respective tributary areas.

For Ankole, the centrality of an urban place may be defined as a function of the quality and quantity of the services it offers. It is well known among urban geographers that in any particular area unit of study, the

number of central places tends to diminish with the increase in the quality of their services. This follows from the conditions that more people are needed to support a bank than a general retail store, a secondary school than a primary school, or a watch repairman than a tailor (the Ankole case). A list of services performed in Ankole would reveal that certain services exist in only one, or a few central places. These services tend to be the most sophisticated and in order to survive, must reach out to a large geographical area to find enough clients to support their existence. Therefore, they serve most or all of Ankole.

In contrast, certain other services are ubiquitous and are to be found in almost every central place. These are the least sophisticated services and are patronized by the largest number of Ankole residents.

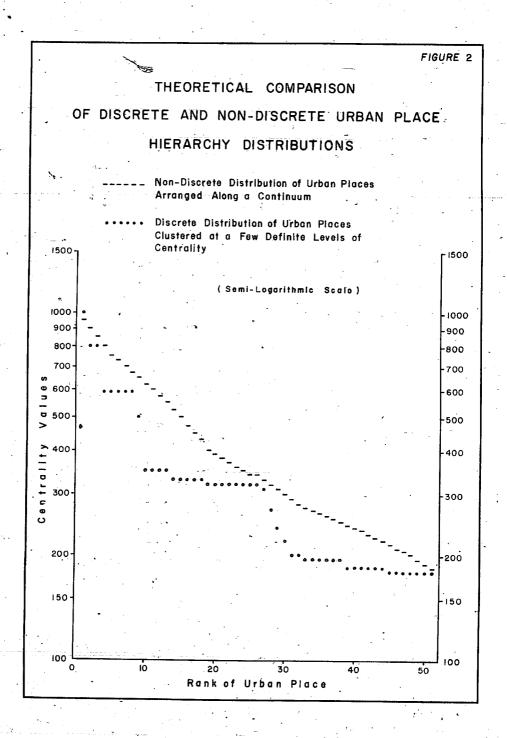
In Ankole the dependence on certain facilities, namely the communications network, water supply, and governmental approval of central place sites, have all contributed markedly to the clustering of services at central places. Therefore, although each service may not have the most economical area of influence when considered in isolation, in combination they will all benefit from their clustering. Consequently, services of similar level will tend to occur together, cloth sellers supporting the local tailors, government administrators supporting sophisticated services (motor car repair, high priced consumer goods) and so on.

Furthermore, the lower order services will generally occur alongside higher order ones; for example barbers, bars and food staple sellers are needed by those connected with government administration and motor car repairs, although the converse is not necessarily true.

respective orders to occur together, many will argue that there is not a continuous decrease in the number of towns as their centrality increases, but that most of the towns cluster around a few definite levels of centrality. The graphical representation of the relationship between the number of centers and the degree of their centrality would not be a continuously sloping, but a rather irregular curve displaying a discrete distribution and have peaks or levels of decreasing size as the level of centrality increases. (See Figure 2)

Others have argued that in reality, a continuum probably exists and that such a pattern is graphically evident when logarithmic or semi-logarithmic paper is employed. It is an intention of this study to examine the pattern of Ankole central places graphed according to centrality scores. It will be of interest to observe if, in fact, either a discreet or continuum pattern is effected. (See Figure 2)

Finally, it is the intention of this aspect of the study to determine whether a hierarchy of central places



does in fact, exist. If a hierarchical structure does exist it would additionally be useful to examine its characteristics.

Centrality and the Central Place System in Ankole

The argument that a hierarchical arrangement of service centers exists is basic to the ideas concerned with
central place theory. It can be argued that this is its
most fundamental conclusion, for it is used subsequently
as an axiom to derive the various other hypotheses and laws
of the general theory. Without this basic proposition it
seems unlikely that the various other theoretical laws
relating to the size and spacing of towns would remain
workable. The proposition of a hierarchy, should, therefore
be regarded as the framework upon which the other laws rest.

Although the past years have seen the proposition of a hierarchy of central places tested in various world areas, many different techniques of establishing "centrality" have been applied. Often the techniques have been incidental

⁸An examination of the following publications will reveal the variety of techniques and ideas employed in the establishment of centrality. A more complete bibliography relevant to this issue may be found in Berry and Pred's bibliography of central place studies, Section II.

Abiodun, Josephine Olu, "Urban Hierarchy in a Developing Country," <u>Economic Geography</u> XLIII, No. 4 (October 1967), pp. 347-67.

Berry, J.L. and W.L. Garrison, "The Functional Basis of the Central Place Hierarchy," <u>Economic Geography</u>, XXXIV, (1958), pp. 145-54.

Brush, John E. "The Hierarchy of Central Places in Southwestern Wisconsin," (cont'd on following page)

to other aspects of central place studies and the "abstraction of centrality" has been avoided. Certainly the difficulties of gathering data and the particular problem orientation of the various studies may justify the numerous techniques and indices used to establish "centrality." In this study an attempt has been made to establish a set of criteria upon which a centrality index may be derived and at the same time which has contemporary operational usefulness.

The objective here is to observe whether or not a hierarchical arrangement of service centers exists in Ankole and what may be the characteristics of such a hierarchy. The technique used to try to establish a hierarchy should offer the following preferred advantages:

- 1) The technquie used to measure centrality should be as objective as possible and capable of being tested.
- 2) The index should not be based on any particular data that possess limited application or relevance.

 Comparability is a useful feature and it should be possible to directly compare the results with those obtained in any other area with similar cultural characteristics.

^{8&}lt;u>Geographical Review</u>, Vol. 43, No. 3 (1953), pp. 380-402.

Davis, W.K.D. "Some Considerations of Scale in Central Place Analysis," <u>Tijdschrift Voor Economische en Sociale Geographie</u>, Vol. 56, No. 6 (November 1965).

^{. &}quot;Centrality and the Central Place Hierarchy," <u>Urban Studies</u>, Vol. 4, No. 1 (February 1967), p.,61-79.

3) The measure should incorporate all the central functions of a place.

A rather simple technique of measuring centrality that satisfies these requirements has been devised and is employed here to investigate the pattern of service centers in Ankole. It was assumed that the area was a closed system and that the degree of centrality of each function (service) varied inversely with the frequency (total number of outlets) of that particular type of function. Therefore, the greater the total number of outlets of any particular function the lower would be the degree of centrality of each individual outlet, since satisfaction of demand is spread over a number of outlets.

The functions were initially arranged in rank order. The function with the most outlets (greatest frequency of occurrence) was given the lowest rank (1) and for index purposes the rank position is equivalent to the centrality index score. The function with the fewest outlets (five functions exhibit only one outlet each) is given the highest ranking (29) and this rank is equivalent to its centrality index score. In summation, the various functions have been weighted, the weight being directly the result of the individual function's position within the ranked order.

Multiplication of the relevant centrality figure by the number of outlets of each functional type present in a

settlement gives the degree of centrality imparted to each settlement for every different type of function. A centrality score for each settlement is derived by the summation of all the centrality index values attained by it.

A potential problem may exist when the various outlets of one particular type of function exhibit different levels of sophistication or scales of operation. The question arises as to whether or not to further weight the individual outlets so as to reflect differences in number of employees, quality of merchandise, services offered, size of service establishment, etc. Upon further investigation, however, it became clear that such variations were relatively few and that in general the various functions displayed a homogeneity from place to place. Only in the matter of educational services were there significant differences between the various levels of education. Such variations were taken into account and treated as separate functions by recognizing four functional types of educational services.

Mbarara, and to a lesser extent Bushenyi, offered a special problem. Many of the functions offered at these two urban places are available elsewhere in Ankole. It is clear, however, that the quality, sophistication and value of merchandise, skill and experience of service performed, and value of service establishments in Mbarara and

Bushenyi far exceed their functional equivalents elsewhere in the district. In spite of this variance, however, no attempt was made to additionally weight the Mbarara and Bushenyi functions. In terms of establishing their supremacy in the hierarchy, additional weighting would only further increase the vast gulf existing between them and the next ranking central places.

The basic data needed for this analysis was gathered by personal field work in 1967, 1968 and 1969. Ninety-nine percent of the urban places were visited and individually surveyed in order to collect the pertinent information. Results of Data Collection

Fifty-seven function were recognized as being operational in Ankole central places (as determined by field work survey). The number of outlets for each type of function varied from one (five functions) to 1379 (general retail shops). Accordingly, the functions were ranked in order of frequency of outlets (See Table XXI).

Where two or more functions have the same frequency. of occurrence, they equally are awarded the same weighted index score. It would be purely subjective and in any case, difficult, to apply value judgements in trying to distinguish among functions with the same frequency of occurrence as to their relative importance and centrality. Fifty-six distinct urban place functions can be recognized in Ankole although centrality index scores only range from

TABLE XX

DERIVATION OF CENTRALITY INDEX SCORES

ORDER OF FUNCTION	CENTRAL PLACE S FUNCTION	FREQUENCY OF OCCURRENCES	RANK AND WEIGHTED INDEX SCORE
. 1	General Retail Shop	1379	1
2	Tailoring	1052	2
3	Cloth Retail Trade	885	3
4	Religious Institution	297	4
5	Butchery	285	5
6	Bar	196	6
	Pre-primary School	181	7
8	Bicycle Repair	177	8
9	Wholesaling-General	165	9
10)	Full Primary School	151	10
11	Market (periodic)	× 118	11
12	Restaurant	₆ 83	12
13	Administrative Hdqtrs.	58	13
14	Carpenter	34	14
15	Hospital-Dispensary	21	15
16	Barber	-20	16
17	Cloth Wholesaler	. 18	17
18	Gasoline (petrol) Sales	18	17
19	Motor Repairs	16	18
20	Bank	13	19
21	Post Office	13	19
22	Shoe Repair	12	20
23	Watch Repair	11	21
24	Hardware Sales	· · · 8	22
25	Food Sales	8	22
26	Senior Secondary School	7	23
27	Hote1	7	23
28	Police Unit	7	23
29	Private Physician	. 6	24

TABLE XXI (CONT'D)

	ORDER OF FUNCTIONS	CENTRAL PLACE FUNCTION	FREQUENCY OF OCCURRENCES	RANK AND WEIGHTED INDEX SCORE
	30	- Radio Repair	6	24
	31	Teacher Training Gollege	6	24
	32	Motor Spare Parts Sales	5	25
	33 💃	Electricity Available	5 .	25
	34	Bicycle Sales	5	25
	35	Shoe Sales	. 5	25
	3 6 °	General Clothing Sales	5	25
	37	Insurance Underwriter	5	25
	38	Appliance Sales	5	25
	39	Books and Stationery	5	25
	40	Attorney	4	26
	41	Jeweler	4	26
	42	Photography Studio	3	27
	·43	Bakery	· 3	. 27
	44	Transport Agent	. 3	27
-	45	Piped Water Supply (Treated)	2	28
	46	Mens Clothing Sales	. 2	28
	47	Motor Car Sales	2	28
	48	Fish Sales	2	28
	49	Daily Markets	2	28
	50	Accountant	2	28
.•	51	Electrical Repair	2	28
	5 2	Supermarket	1	29
/ .	53	Womens Clothing Sales	1	29
	54	Business Machines and Office Furniture Sales	1	29
·. ·	55	Furniture (domestic) Sales	1	29
,	56	Chemist (Pharmacy)	1	29
	and sever several area and several areas			

one to twenty-nine (many functions with the same frequency of occurrence have the same centrality index score).

When the various functions and their weighted centrality scores are collated per urban place it is a simple matter to total the individual scores and award an urban place a total centrality value.

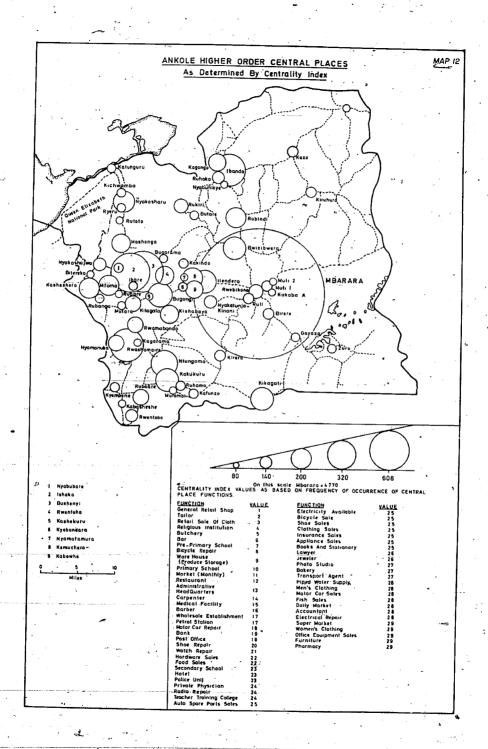
Maps 12 and 13 reflect the Ankole distribution of urban places according to centrality scores while Figures 3 and 4 offer a systematic presentation of the hierarchical structure of urban places based on a rank-centrality value relationship. Figure 3 suggests an Ankole central place hierarchy based on the relationship between absolute total number of services (functions) per urban place and total distinct or types of functions per central place. Figure 4 allows a comparison of urban places based on the relationship between population and total centrality values.

Maps 12 and 13 along with Figures 3, 4, and 5 show the high correlation between population, high level of centrality value, and range in functions per urban place. Mbarara, as expected, stands alone as the dominant settlement of the District. Bushenyi, Ishaka and Rwashamaire rank importantly and may be labeled as Sub-District Centers although the differences between these centers merit attention. Bushenyi as an "Asian oriented central place" maintains an inordinate concentration of wholesale functions while Ishaka is the most prominent African

Ankole Higher Order Central Places

All urban places that are awarded a centrality score of eighty or higher are located and identified. The overwhelming importance of Mbarara is clearly demonstrated. For a discussion of the techniques by which centrality scores were awarded, see Chapter V, pages.

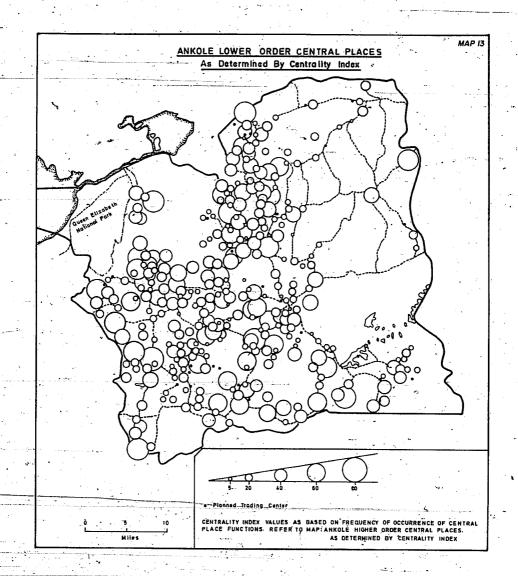
175 - 177.

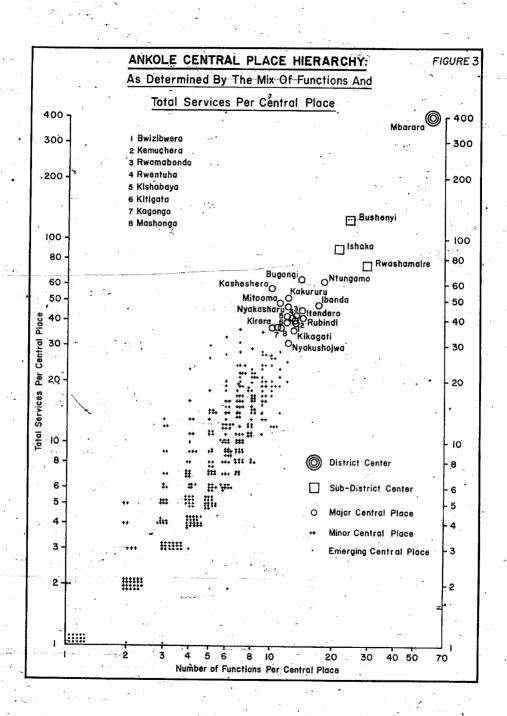


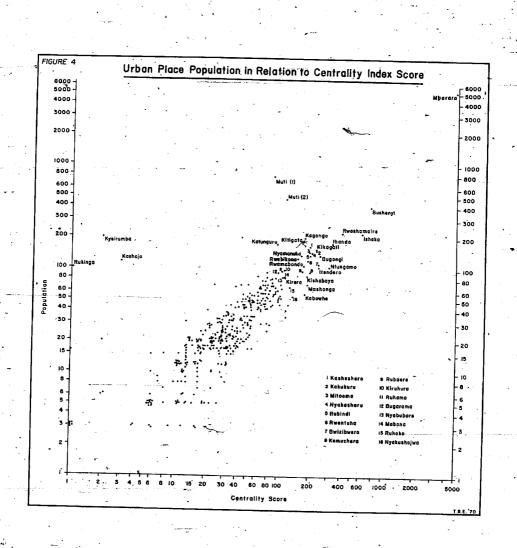
Ankole Lower Order Central Places

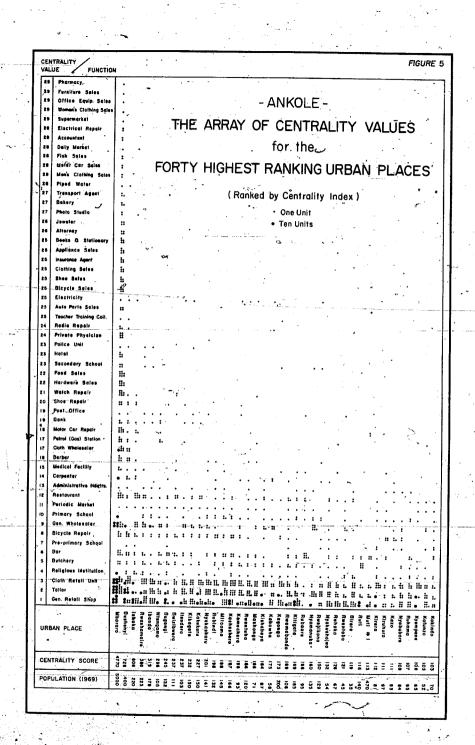
All urban places that are awarded a centrality score of seventy-nine or less are located but not identified. Such urban places are characterized by a limited functional mix and exhibit the most ubiquitous urban place functions.

Planned trading centers are sites that have received official sanction for the establishment of commercial retail sales or service units. Although at some locations buildings were under construction, there were as yet, no functioning urban place services and no resident population.









oriented commercial center in Ankole. Rwashamaire is of major commercial and governmental importance and although a major transportation junction, curiously does not support a gas station. Both Rwashamaire and Bushenyi are major administrative headquarters, while Ishaka is the site of an important hospital complex.

Finally it should be noted that Bushenyi and Ishaka are only three miles distant from each other. This is unexpected in that Sub-District centers theoretically ought to be well spaced apart while being central to more numerous lesser ranking urban places. In reality it would not be far remiss to think of Ishaka and Bushenyi as a joint community cluster, each offering numerous functions that are exclusive of the other. Although geographically there is no evidence of early growth toward each other, the nearness in terms of bicycling, taxi or even walking time permits commercial, social and political reciprocity.

At the third tier in the hierarchy, as expressed on Figure 3, are twenty settlements identified as major central places. These settlements are distinguished in that their size and functional diversity gives them greater prominence and importance to the surrounding populace and hence increased centrality vis a vis less important centers, whose positions are lower on the hierarchical graph scale. Admittedly, the line separating major from minor central places is arbitrary, yet empirical evidence suggests that

the division is satisfactory.

The great majority of settlements are classified as minor central places and as can be seen on both Figures 3 and 4, occupy coordinates decreasing regularly along the continuum toward zero.

In most cases, major central places are distinguished from minor central places by the presence of specialized services that are unavailable in the minor central places. This is in conformity with the basic theoretical arguments of central place theory. Specifically, settlements identified as major central places are likely to maintain barbers, shoe repairmen, carpenters, bicycle repairmen, medical facilities, banks, gas stations and full primary schools which are unlikely to be found in the minor central places.

Minor central places are dominated by functions that include general retail shops, tailoring, retail sale of cloth, religious institutions, butcheries, and pre-primary schools. Reference to Figure 5 will indicate the specific functions present or absent at the higher ranking urban places.

At the lowest level may be found the emerging central places. Such sites are generally characterized by the presence of but one function occurring with only a single outlet. The recognition of this fifth tier in the hierarchy is again empirical. It would be equally valid to dismiss the existence of a tier of "emerging central"

places" and simply recognize such settlements as the least important of the minor central places.

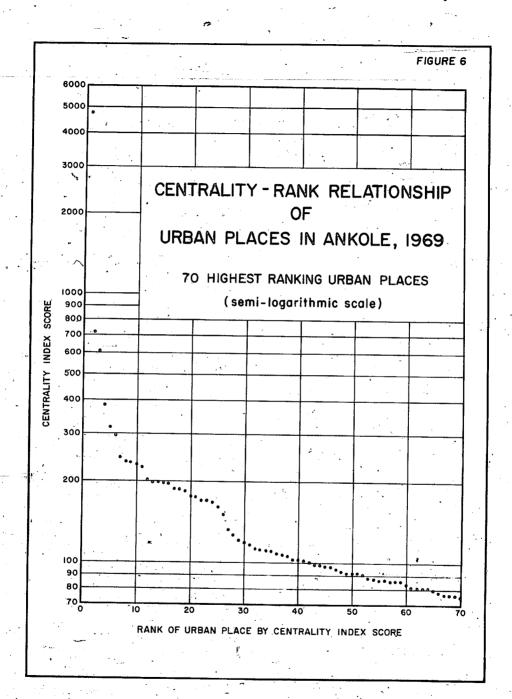
Reference to Figure 4 reveals five marked residuals from the otherwise rather close fit to the hypothetical regression line. Their presence is easily explained.

Both Muti #1 and Muti #2 are suburbs of Mbarara sited one and two miles eastward along the road to Masaka.

Muti #1 is essentially a settlement oriented toward the adjacent army base and is populated largely by army wives, mistresses, prostitutes and children. Only five different functions with thirty outlets are present at Muti #1 and thus on Figure 3 it is undistinguished and classified as a minor central place. Muti #2 is similar in its characteristics possessing six functions with a total of but twenty-seven outlets. In both cases the nearness of Mbarara and the facilities of the army base (unsurveyed) combine to restrict the functional complexity of these two urban places.

Kyeirumba is a sizeable settlement oriented toward the suppression of the tse-tse fly. The community is planned but is only a semi-permanent settlement that functions strictly as a residence for tse-tse fly control workers and their families. Kyeirumba has but two general retail shops and these are isolated by almost one mile from the site of the residential settlement.

Rukinga and Kashojo are both planned fishing



communities sited on the shores of Lake Nakavali in Isingiro Saza. The population levels for these two centers is variable during the course of the year and is seasonally dependent on the availability and market potential for fish. The surrounding rural population is sparse and it, as well as the fishing population, seek central place services at nearby minor central places.

Figure 6 indicates that, with the exception of the highest ranking central places, the hierarchical structure when graphed on a semi-logarithmic scale appears as a continuum. For purposes of convenience, only the seventy highest ranking central places are graphed. If the ranking were to be continued downward, the gently sloping continuous curve would continue to flatten out and further emphasize the continuum nature of the hierarchy. Discrete levels of centrality below the three or four highest ranking individuals are not at all evident from this graphic portrayal although some might argue for a break at a centrality score of around 150.

CONCLUSTONS

The preceding portions of this study have presented and examined that data necessary to the development of logical responses to the prestated hypotheses. At this point it is proper to respond to those five pre-stated hypotheses that have focused the direction of this study.

The First Hypothesis

The first hypothesis argued that modern urban places in Ankole are alien to traditional settlement patterns. In spite of the fact that the overwhelming number of Ankole urban places have been built and are operated by the Banyankore populace, this pattern is of recent development.

The evidence presented in Chapters two and three make it clear that urban places (as defined in this study) were non-existent in Ankole prior to 1898. This date marked the establishment of a permanent administrative settlement by British authorities at the site of modern Mbarara.

Prior to this event, all Ankole residents resided in dispersed farmsteads or pastoral menyattas. Their material and service needs were self-satisfied with a minimum of barter exchange occurring for exotic or specialty items. Consequently, there were no regular foci where the population could expect to satisfy more than one service or material need. Specialist craftsmen were known and patronized but production was irregular and markets for their

skills highly variable. Furthermore, there is no evidence that more than one craftsman or specialty product was concentrated at any one site (save perhaps the royal kraal). The workshop of any specialty craftsman was invariably sited at the rural farmstead where both he and his family also engaged in subsistence agriculture as their basic economic activity. Where trade transactions occurred, barter in kind was the basis of exchange. Even compact villages where one might expect to find a small fraction of the residents performing regular services for each other were unknown.

In summary, neither compact villages, markets, nor sites where collections of craftsmen plied their trades were in existence in pre-1898 Ankole. Administrative functions, generally vague and irregular, focused on the royal kraal which was never a permanent settlement.

Given these pre-conditions, urban places were external introductions into Ankole at the end of the nineteenth and beginning of the twentieth centuries. This arrival of foreign elements took the forms of British and Ganda administrative and religious authorities and Asian commercial agents. Essentially, urban places were foreign cultural infusions. They were established to serve the needs of foreign arrivals determined to institute major cultural changes in governmental administration, spiritual guidance, and economic activities. The focusing of these

cultural changes through individual sites centrally located for their efficient operation formed the basis for the early urban places. Diffusion and acculturation followed with increasing rapidity so that, at later dates, the Ankole population itself became increasingly involved in the establishment of urban places.

The Second Hypothesis

The second hypothesis argued that an embryonic arrangement of urban places dominated by a primate city and characterized by conformity with the rank-size rule for urban places is demonstrated in Ankole. This hypothesis suggests that certain characteristics of urban systems known to exist in various areas of the world are also in existence in Ankole. There is little doubt that a "primate" distribution of urban places characterizes Ankole. Mbarara thoroughly dominates with a ratio of 15.4 to the population of the second largest settlement, Bushenyi, and 5.9 to the populations of the second through fifth largest settlements combined. The ratio of first settlement to second may be compared with the results of Linsky¹ where among the various nations of the world, South Vietnam, Thailand and Hungary exhibited ratios of 16.3, 15.0 and 13.2 respectively. Although Linsky worked only with primate metropolitan areas with populationsover.

Arnold S. Linsky, "Some Generalizations Concerning Primate Cities," Annals of the Association of American Geographers, Vol. 55, No. 3 (September 1965), pp. 506-13.

1,000,000 the nature of the ratio may be empirically compared with the Ankole case so as to realize the general absence of urban places of intermediate size.

The geographic expression of Mbarara's dramatic primacy is clearly evident in the high concentration of services, specialized functions, presence of a town council and a town plan prepared by the federal town planning agency, functional geographic areas within the town, largest proportion of non-African residents in Ankole (both Asian and European), and its high centrality value as derived in Chapter Five.

The rank-size rule applies poorly to Ankole. This is not unexpected. It could be argued that where urbanization is poorly developed, that primate distributions (few settlements of intermediate sizes) are expected. In fact, Berry and Horton have demonstrated that the rank-size rule is applicable to states where the degree of urbanization ranges widely. They indicate that both highly urbanized areas such as Italy, the United States and West Germany, and areas with relatively lower levels of urbanization such as India, Korea and China may both exhibit the rank-size rule. Nonetheless, because Ankole has such a low level of urbanization (2.56%) and because the absolute urban population is so tiny, it could be argued that areas

²B.J.L. Berry and Frank E. Horton, <u>Geographic Perspectives on Urban Systems</u>, (Prentice Hall, Englewood Cliffs, 1970), Chapter 3, pp. 64-93.

experiencing the earliest stages of urbanization are likely to demonstrate rank-size distributions similar to that of Ankole. Further comparative studies are required to verify or dispel this notion.

Berry and Horton have also demonstrated that countries with the lowest primacy indices correspond to predicted rank-size distributions, and that countries with the highest primacy have primate city size distributions. This is consistent with the results obtained in Ankole.

The high primacy characteristic of the Ankole ranksize distribution is further in keeping with a generalized model of city size distributions. Berry and Horton have proposed a developmental model for city size distributions. They borrow from Berry and Garrison and observe that a lognormal distribution of city sizes exists as a condition of entropy which they define as a circumstance in which the forces affecting the distribution are many and act randomly within the context of growth proportionate to size of city. The lognormal city-size distribution contrasts with other distributions which are simpler in that they are produced by fewer forces. Berry and Horton assume that primacy is 31bid.

⁴Brian Berry and William L. Garrison, "Alternative Explanations of Urban Rank-Size Relationships," <u>Annals of the Association of American Geographers</u>, Vol. 48 (March 1958), pp. 83-91.

5Berry and Horton, op. cit., p. 75.

the simplest city size distribution, affected by but few simple strong forces and thus furthest from the conditions of entropy. A high degree of primacy would thus lie at one extreme on a scale based on conformity to the rank-size rule of city distributions.

consequently, several derived notions may be hypothesized. Fewer forces will affect the urban structure of an area; (1) the smaller the area is, (2) the shorter is the history of urbanization, and (3) the simpler is the economic and political life of the area and the lower its degree of economic development.

In ordinary cases, most urban places perform essentially the same set of functions, whether political or concerned with rudimentary economic activities. As complexity increases so do urban functions, and when the cities are viewed in the aggregate, a condition of entropy will be seen to exist within the limits of the urban growth process.

Berry and Horton point out that countries with ranksize distributions include urban industrial economies (e.g.
Belgium, United States), larger countries (e.g. Brazil) and
countries with long histories of urbanization (e.g., India
and China). Primacy of rank-size distributions characterizes small areas with simple subsistence economies such as
Thailand or in this case, Ankole.

As has been demonstrated in the preceeding chapters,

⁶Ibid.

Ankole does not possess an urban industrial economy, is small in areal size, has a very short history of urbanization, and exhibits a relatively simple economy with a limited level of economic development. The extreme position of Ankole on the Berry-Horton model for city size distributions suggests that the nature of this distribution may change over time as the economy becomes more industrialized and sophisticated. Since industrialization is apparently a very long term future expectancy, we can expect the high degree of primacy for Ankole to continue into the forseeable future.

The Third Hypothesis

The third hypothesis argues that the functions and morphology of Ankole urban places are the consequence of recent cultural dispersals being introduced to Ankole via non-traditional inhabitants. This hypothesis is logically an outgrowth from the first hypothesis that modern urban places in Ankole are alien to traditional settlement patterns. If the first hypothesis is valid, and I believe that I have demonstrated its validity, then this hypothesis would be valid unless it could be demonstrated that the indigenous Ankole population strongly influenced the functional and morphological patterns of Ankole urban places. This is generally not the case.

The functions of Ankole urban places have been shown to be the provision of administrative, religious,

educational and commercial services on a regular basis to the largely rural populace. In all cases these functions were introduced and initially localized by the incoming British, Asian and Ganda foreigners. The commercial function was clearly generated by the introduction of a nascent cash economy with much of the commercial sales and services being attracted to urban places. In general, the urban places were dependent upon the local African population's production of supluses for sale. Cash payments then found their way into the hands of merchants sited at the urban places.

The earliest merchants were Asians and WaGanda, their wares being imported largely from Europe and North America. Later when the Banyankore began to establish their own shops at urban places, in most respects they copied the Asian and Ganda merchants. Asian wholesalers furnished their merchandise, and where Banyankore wholesale merchants bought agricultural surpluses, they were resold to Asian wholesalers operating on a larger scale.

Many of the commercial services are based on the introduction of foreign elements of technology. The ubiquitous tailors, who stitch garments out of imported cloth, sew on imported sewing machines. The cloth garments are sold to men and women earning cash from the sale of crops (mostly coffee) destined for export. It could be further argued that much of the early demand for cloth was

stimulated by the European missionary admonishments against a scantily clothed appearance. The repair of bicycles, watches, radios and motor cars are also the consequence of new technology introduced through foreign agents while banks and post office facilities reflect foreign notions of exchange and communications.

Educational and religious services also reflect their foreign roots. Formal education has, from the earliest days of its establishment, been associated with religious institutions, primarily the various European churches. English remains the language of instruction and in the secondary institutions teachers of non-African descent (mostly British) dominate the faculties,

Even the administrative functions are largely of foreign design. From the earliest days of British authority, there was a heavy reliance on the placement of Ganda chiefs in administrative positions at the saza level. Although the Omugabe's kingdom was recognized by the colonial government, British agents functioned to administer and oversee the implementation of colonial policies as they were established in Entebbe (the colonial capital of Uganda) and London. British concepts of governmental responsibility led to the establishment of Ankole government departments of agriculture, veterinary services, survey, health, police and justice. Various of these services were localized at the saza and gombolola headquarters

as well as at Mbarara.

The morphology of Ankole urban places is again clearly the consequence of foreign influence and control. The earliest urban places were established by foreigners with pre-conceived ideas of building design, arrangement of structures, and land use patterns. As economic growth permitted, they employed durable building materials so that concrete block walls, corrugated iron sheets, tile roofs, wooden doors and shutters, and most recently glass have come to dominate in urban places where Asian and European concentrations exist. The initial use of these materials was dependent on foreign technical experience and in some instances, direct importations.

In contemporary times the great majority of urban places are regarded as "African oriented" and are built and populated by indigenous Banyankore. It is also true that the basic building materials employed in these settlements are mud and wattle, a very old African technique of construction. Nonetheless, the ubiquitous rectangular floor plan, concrete slab floors, corrugated iron sheet roofs, and hinged doors and window shutters are of foreign introduction.

The residential practice of dwelling on the same site, and commonly in the rear of one's commercial establishment, was introduced by the early Asian merchants and has since been adopted by the African population at large. Only in

Mbarara have residential districts appeared as a consequence of European notions that the places of residence and work should be geographically separated. Since such spatial discretion would require a decrease in security at the commercial premises and an increased investment in buildings and land leases, it has not found favor beyond the district capital.

Furthermore, the colonial government instituted Trading Centre Ordinance of 1933 and the Ankole African Shops and Trading Centres Law of 1958 had the effect of instilling British concepts of order, sanitation and public health for both Asian and African oriented urban places. The general uniformity of appearance of Ankole urban places. can be traced primarily to two major causes; firstly the government imposed regulation of building codes and land use within urban places and secondly, the general low level of economic development among the Banyankore population. The minimal cash incomes earned by residents of the African oriented urban places just does not generate enough surplus for investment in more expensive and sophisticated building materials and designs. In the Asian oriented urban places, incomes have traditionally been higher and this is partially reflected in the larger size of establishments and the use of more durable and expensive building materials. General architecture and design in Ankole is consistent from urban place to urban place with the

exception of Mbarara where newer techniques and architectural forms have been introduced from the Uganda capital of Kampala where such innovations first commonly appear.

The Fourth Hypothesis

The fourth hypothesis argued that the functions performed by Ankole urban places are generally characteristic of functions performed by urban places in other parts of the world. Essentially urban places throughout the world evolved as centers of secondary and tertiary economic activities although mining and fishing (generally classified as primary economic activities) are also known. Ankole urban places function primarily as nodes for the efficient operation of tertiary economic activity, that is the provision of services to the population at large. In the sense that the urban places are foci of administrative, educational, religious, and commercial services, one can readily argue that they perform functions similar to functions performed in urban places in other parts of the world.

On the other hand, the Ankole urban places are functionally quite different from urban places in many other parts of the world. These differences are primarily fourfold. Firstly, the urban places are entirely oriented toward serving a rural population. Their individual establishments generally do not serve the needs of the urban place residents. Only in Mbarara do the various urban place functions partly depend on the patronage of the

urban populace. The most obvious explanation for this pattern is, of course, size of urban place. Except for Mbarara, the urban places are so small that no individual function could survive economically and operationally if forced to depend on the potential market of the immediate urban place.

There is, however, an additional factor that operates to limit increased urban population patronage of corresponding urban functions. This factor embraces the food supply practices of urban dwellers whereby the Banyankore and often the Ganda town residents also maintain farmsteads in the local rural area. The farmstead is worked by members of the family and the basic staples of the diet are provided regularly from the home farm rather than from urban establishments specializing in the sale of such staples.

A second important difference is the presence of periodic markets at 118, or almost one-third, of the Ankole urban places. Periodic markets are uncommon in most urban places of the world particularly when they occur as regularly as one or two days per month, every month. The markets compete vigorously with the permanent urban place sales and service establishments and in spite of their infrequent activation, they have severely handicapped the growth of the commercial functions in the urban places throughout Ankole.

Thirdly, we must note the general absence of secondary economic activities, that is manufacturing, in Ankole urban places. Most urban places in the world, particularly the economically developed parts, exhibit as part of their economic base at least a small proportion of their population engaged in manufacturing. With the exception of coffee processing at two urban places, Mbarara and Bushenyi, a tea processing factory at Mashonga, two bakeries at Mbarara, and two milk processing plants at Rubaare and Mbarara, manufacturing is unknown at Ankole urban places. Craft work is practiced at the individual farmstead and machine manufactured goods are fabricated either in other parts of Uganda or are imported from abroad.

The absence of a residential function is the fourth difference to be noted for Ankole urban places. Most urban places in the world exhibit districts, sections, or at least, individual structures that function primarily as places of residence for the urban employed. Except for Mbarara, this practice is uncommon in Ankole urban places.

Away from Mbarara urban place dwellers reside at their place of occupation in adjoining living quarters or in a detached dwelling on the site of the functional establishment. Religious, educational, administrative, medical and police institutions maintain on their properties residential accommodations for their personnel. Ankole urban places do not exhibit residential zones as they are

commonly recognized in other parts of the world.

The absence of residential zones is easily explained. Most urban functional establishments employ few people. Commercial establishments particularly, are family operated and for purposes of security and cost, the family dwells on the site. People thus employed do not require external housing. The various service institutions—educational, administrative, religious, medical and police—have. evolved under the concept that residence on the site of the institution is desirable and preferred. It is understood that when one is employed by a school, hospital, church, or the government, that these agencies shall provide housing as part of the compensation. The agencies have found that to construct their own housing for employees is convenient and less expensive, and it ensures availability of housing where it otherwise might be scarce.

The Fifth Hypothesis

The fifth hypothesis argues that given the level of economic and technical development in contemporary Ankole, that a hierarchical system of central places based on functional differences exists in accord with similar theoretical hierarchical systems as described and put forward in the geographical literature.

Based on a simply conceived system of attributing degrees of importance to the various urban functions, the urban places when graphically displayed according to their

centrality, reveal a hierarchical system of central places. The functions are simple but clearly differentiated and their concentration reflects the relative importance of each central place to the surrounding rural countryside as a center for the provision of services.

When centrality is evaluated it is clear that it is the higher order urban places that offer more goods, have more service establishments and business types, have larger populations, and are more widely spaced than lower order places. Conversely, the low order places commonly provide only low order goods (support the functions with the lowest index scores). The higher the order of goods provided (functions with the highest index scores), the fewer are the establishments providing them, and the fewer and more widely spaced are the urban places in which the establishments are located. Ubiquity of types of functions increases with descent along the centrality score scale.

Furthermore, it can be demonstrated that central places higher up the centrality scale perform all the functions of lower order central places plus a group of more specialized functions. It is this group of specialized functions that differentiates them from, and sets them above, the central places of lower rank.

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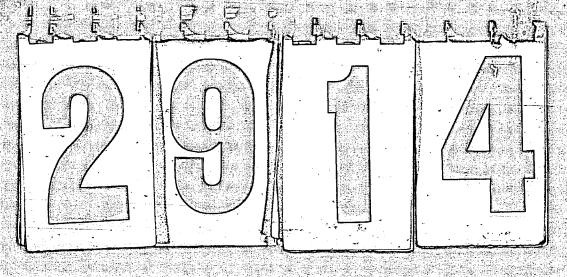
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