

Genesis and development of settlements in the Guinea and savanna regions

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Introduction

In the following study of the genesis and development of settlements in the Guinea and savanna regions of the larger west African cultural region, my approach is both textual and contextual. This perspective is preferred because of my conviction that local peoples any where in the world have always related to their general environments, and particularly to their settlement space, from their own cultural ideological and institutional standpoints which has influenced and helped to shape their economic, social and political activities. Some of these were expressed in spatial forms and structures in physical time as well as through cultural time.

Although many criteria of urbanism have been suggested (e.g. Sjoberg 1955), including presence of a literate elite and Childe's (1950) ten indices for determining the urban character of an archaeological site, none has proven, nor is ever likely to prove universally acceptable. In fact it is now being increasingly recognized that even Wirths' (1938) minimal definition of a city as a relatively large, dense and permanent settlement of socially heterogeneous individuals and indeed all other categorizations of urban-rural (Kuper 1965; Wheatley 1972, p. 608) are culturally based and are only true of their own cultural area's ancient and medieval cities, or the modern versions which serve as reference points. These and related facts clearly suggest that traditional concerns with the formal properties of cities (in actual fact, western cities) cannot adequately inform us on the dynamic characteristic of cities and societies of which they were not part (Blanton 1976).

McIntosh & McIntosh (1984, p. 77) have noted correctly that the formal (universal) city approach does not provide for the formulation of useful questions relating to urban processes in specific regions of the world, nor does it provide a conceptual framework which can accommodate the tremendous variety and variability of urban settlements through time, and I would add in and through different cultural regions. In my own view such an approach also tends to presume a universality to the nature and character of towns and cities which does not exist. I therefore attempt to trace and study settlement traditions, trajectories of development, taking off from the premise that each clearly identifiable cultural entity is characterized among other things by its own settlement tradition, with its unique, distinctive and dynamic network of culturally related settlements. My prime objective is to reassess many long standing myths, and as a result, begin to have some in-depth knowledge of cases of the development of multiple centred urban networks in distinctive cultural regions of western Africa. Some such myths deriving presumably from the tendency to impose a framework from

another cultural region's experience are the basic assumptions that in all of Africa as in Europe the first towns/cities occurred only and together with the emergence of agriculture, and did not and apparently could not have been prompted into existence by other non-agricultural yet economic factors, or even non-economic factors. Further towns/cities seen from this perspective necessarily developed in the same manner, namely through clustering of functions and activities at a centre and the nature of such functions determine whether they are political, economic (trading, manufacturing, agricultural), religious or military towns.

Conceptualization of urban settlement: definition and import for Africa

At least one problem with the definitions of town/city that have usually been applied to the African cultural setting has been an overstatement of the importance of the European models of town city and trajectory of development. Although details may differ the ideological predisposition was to emphasize the economic and commercial aspects, and to assume a progressive movement away 'from a situation in which religion and administration (perhaps successively) played central roles, to a situation in which commerce became the key element' (Winters 1983). The supposedly pre-industrial city was also thought to be a non-economic centre because it was non-productive. It was contrasted quite wrongly with the industrial city which was supposed to be the productive centre of a country (cf. Weber 1958) and the seat of *creative technology* which served as the key independent variable stimulating production of goods and services (Sjoberg 1955). The ruler's city was by contrast seen as made up of consumers, parasitic aristocratic households whose members lived off their rents. This idea has been expressed strongly with regard to western European pre-industrial cities such as eighteenth-century Paris and London (Daunton 1978). And the thesis, based on a rural/urban dualism, was taken up by some Africanists who opposed the parasitic city of folk societies to the generative one of industrial societies. Because their impact on economic growth was perceived as favourable, colonial capitals were placed halfway between the two, since in the view of some (Hoselitz 1954, p. 281) they represented 'a culturally generative but economically parasitic process of urbanization'.

As correctly noted by Coquery-Vidrovitch (1991) a static socio-anthropological approach was adopted in the depiction of precolonial African towns. Features of ritual and cosmological origin were singled out as evident in the spatial organization of the African town, and so also features considered to be symbolic reflections of the primacy of religious thought over its destiny. The fact that such hypotheses were better demonstrated in African settlements which are better termed villages (e.g. Dogon, Sao of Tchad) rather than towns is usually quietly glossed over.

Typologies have been developed for various kinds of cities whether ancient Old and New World ones to colonial African examples; (e.g. Reissman 1969). The smaller typologies for African cities are usually based on a reading of the European experience. However, as

noted by Redfield (1953), although typology construction may be regarded as a necessary step for theory-building, it could also be detrimental especially where typologies are premised on wrong and false theories (in this instance of what is 'urban' or 'African').

Premising their work more or less on the above theoretical frame, (see e.g. Mabogunje's (1968) functional specialization theory), many archaeologists studying urban settlements in west Africa were thus to generally define towns in terms of size and functional differentiation (i.e. craft specialization) of the population and population heterogeneity benefiting from external sources and a population density ranging between 2000 and 5000 (e.g. McIntosh & McIntosh 1981; McIntosh & McIntosh 1984; Anquandah 1993).

According to Trigger: (1972, p. 577) 'Whatever else a city may be, it is a unit of settlement which performs specialized functions, in relation to a broader hinterland'. The specialized functions, being of an economic nature (McIntosh & McIntosh 1984, p. 77), such as the elaboration of power and new social institutions or the exchange of information.

Unfortunately, the assumption that urban settlements necessarily followed on and were made possible from the emergence of farming and metal working or farming and trade, is attached to this idea of functional specialization. Connah (1987), for instance, not only argues that the west African environment as a whole and in particular the savanna provided conditions conducive to the development of a complex network of trade, he thinks it quite likely that such trading activity was almost as old as west African food production and may date back to about three thousand years ago. In any case, agriculture, following this thesis, is seen as permitting on the one hand an exchangeable food surplus and on the other an increase of population density, although, according to Coquery-Vidrovitch (1991), it is not clear which phenomenon was decisive. In other words, labour intensive centric type of agriculture rather than writing seem to be accepted by these as the index of civilization and the determinant of urban revolution in the west African cultural landscape. As against all these, it is noteworthy that Anquandah (1993) referring specifically to the Ghanaian situation, asserts that the social function of the town as a seat of an *Omanhene* or a principal chieftain, and as a focus of socio-political life was an important traditional factor of distinguishing a town from a village.

Following this significant tone of dissent I proceed to ask certain relevant questions, some of them are listed below.

1. If some 'cities are essentially the points of articulation of a capital intensive economic system' (Mabogunje 1968, p. 22) are there also no examples of settlements which developed into cities as part of capital extensive constructs or as some other kinds of economic constructs?

2. Just what patterns and types of settlements have been characteristic of the peoples who lived and flourished in the Guinea and savanna regions of west Africa at specific times including historical times?
3. What factors or which of these factors – ecological resources (economic) technological, population, social organization - affected their processes of growth and development significantly, and in what ways and with which results?
4. What type of scale or scales should we use to measure development of settlement complexity in the various cultural regions identifiable historically in the forest and savanna zones of west Africa.
5. In studying the development of urban settlements in such cultural regions would it be right to always and for all cases measure development of settlement complexity on a number scale as used for western cultures?
6. Are the highest order centres (i.e. those performing the greatest number of specialized functions) always necessarily those that are relatively large in size and few in number; and must the service area or the area of influence of such centres vary directly with the level and variety of functions they perform?
7. Are the numerous locational models including the well known central place theory, which seek to describe the relationship of size, function and spatial distribution of settlements within a regional network, (Garner 1967; Clark 1982, pp. 34-124) always appropriate and/or applicable for measuring all kinds of complex settlement development?

The cultural approach to human settlement studies

Although many investigators find it convenient to presume that the definition of settlement boundaries, and functional delineation of space etc., are same and consistent across cultures or even within one cultural landscape through different time epochs, my point of departure in this study is the recognition of the fact that criteria determining the boundaries and edges of settlements and consequently their sizes and structures are, are necessarily cultural and relative and not absolute either quantitatively or qualitatively. They are what the people who occupied and built them perceived them to be and proceeded to delineate and categorize. In other words besides the real difficulties of surveying sites in our region which were/are both occupied and heavily vegetated such as for instance Benin, Ife and other Yoruba towns, there is also the real problem of deciding when the spatial and temporal boundaries/edges of settlements of no

longer living populations have been reached, and what and how occupation spaces constitute discrete settlements belonging to a specific cultural time frame.

As noted by Fletcher (1993) the ambiguity over defining the edges of different settlement types is more pronounced for unbounded settlements like Kumasi than for those that are bounded like Zaria. Fletcher (1993) suggests that as a general rule an open settlement includes a *periphery of open spaces, service function localities and dumps* unless there is strong evidence to the contrary. We note, however, among other things that zones with low densities of occupation debris are not necessarily peripheral zones for settlements. But the principal point of departure is perhaps – thus far hardly given – to locate the people who performed the act of establishing their attentive settlements and letting them tell us themselves of their experiences.

Genesis and development of human settlement: a reconceptualization

The background from which we essay into early urban history of the Guinea savanna regions of west Africa follows from above, namely our realization that human settlements whether occupied and or built up, are man's most elaborate way by which he expresses or articulates through institutional and activity levels (verbal and non verbal) his understanding of life (beliefs, values, attitudes) and his systematic conceptualization of this as an ideology of living. Where the evidence is available we attempt to trace each settlement trajectory derived from social formations specific to the cultural group or related cultural groups and which can normally be distinguished by their own distinctive types (networks and hierarchies of settlements). Our critical premises are that (1) geographic factors were and are important in human settlement history only in a contextual sense, that is, in the sense that they present man with ecological opportunities as well as constraints, which can be translated into various possible social economic and technological realities depending on the socio cultural status of the people; (2) if we are ever to compare the settlement traditions of different peoples appropriately, then at least a proper starting point is to derive our definitions of towns, not from any supposedly universal or generic prescriptions but from what the particular socio-cultural groupings conceive towns to be as well as from the efforts they made to create and nurture their concept into concrete socio material reality. Such definitions should start from both the society's vision as inherent in the language and symbol system, and the society's concrete provision for this through resort to suitable and of required material resources adjudged suitable and/or required.

West African towns: essays towards a typology

The employment of such an approach is beginning to reveal interesting and important new leads. Unfolding for example is the fact that west African peoples speaking distinct languages

appear to have words and concepts for differentiating various types and hierarchies of settlements, the meaning of such words ranging from village or hamlet to town. In some of these, classificatory systems are not just of great antiquity but are home grown rather than borrowed. The Yoruba, Bini, Hausa, Akan, Ewe and Mandingo and the Ijo for example have a series of words to differentiate their different kinds of settlements, one of which is something akin to town. In addition the ecological and/or geographical features which seem to be associated with distinct types of settlements specific material elements accepted by the people as depicting these different kinds of settlements. Among the material elements identified as commonly used by the peoples living in the Sudan Sahel and the Guinea forest regions to depict different kinds of towns include:

- One or several shrines located in the centre (later one of several mosques)
- One palace, in most cases fortified
- A large centrally located market
- A transportation depot or transit station
- A military depot – sometimes centrally located (conquest or military centre)
- A defensive (rather than a conquest) outpost
- Predominance of a building style
- A centrally located palace and market .
- A palace, market and fortification.

The foregoing also seems to suggest that in some historical cases one can either rank the factors leading to growth and development, or identify which were the most important one or two factors promoting genesis. Looked at from this angle one recognizes almost an endless list of different kinds of towns, namely: Agricultural towns – dominated by food production; Agro market towns; Market towns – (dominated by trade); Palace towns (in which political factors are most important); Industrial towns: transit towns; Conquest or military towns and defensive outposts.

The agricultural and agro-market towns, and particularly in the savanna, fishing and agro-fishing towns usually emerged as ‘small’ towns in long settled basically agricultural regions and became agro-markets when their growth in social complexity is related to expansion in their non-agricultural economic sector, in particular trade (e.g. Jenné-Jeno, Niani). Where expansion is in the technological sphere – (e.g. iron-working, smithing, potting)

an agro industrial town is the possible outcome – when it is in the administrative sphere – the possible outcome is an agro-political town. There were, however, instances as in the Shai hills of Ghana where the emergence of ‘towns’ derived primarily from the people’s exploitation of the area’s industrial potential and instances as in some of the Yoruba towns – where the primary organizing principle if not the motive force for the town’s existence was political (e.g. Koumbi Saleh, Gao). Many of such towns were located at river confluences.

At the other end of the scale there is abundant evidence in the various regions of west Africa of town formation – through territorial expansion rather than the continuing development of long settled ‘rural’ regions. Cities emerged in an expanding frontier not from farming communities, but from forts, trading posts, some of which were located even within relative wilderness. With respect to the agricultural towns there seems to be some basis for distinguishing between town settlements whose subsequent growth depended directly or indirectly on intensive forms of agriculture and those dependent on or associated with extensive forms of agriculture, and those dependent on complex land use combinations.

Of course, the subsequent development of many of the early towns in the Sudano-Sahelian zones of west Africa was influenced by Arab contact through the trans-Saharan trade. Most of these towns were linked to the empires and states such as Ghana, Mali and Songhai which developed in this region and, significantly enough, were predominantly riverine or semi-riverine.

There were also transit or entrepot towns which were developed at various times at the transitional zone between the forest and savanna. The existence of most of these was fundamentally linked to their role as transits. They functioned as inter-regional markets. As pointed out by Posnansky (1987) these frontier or contact zone centres were usually favourably located topographically. They were either access points for more than two distinct resource areas (e.g. forest and savanna; flood plain and savanna; montane and plain etc.) or they were contact points between two distinct cultural zones or transportation media etc. A distinctive if not common feature of these towns was the presence of a market right at their centre. Most of these towns were created through African initiative and were usually not as populous as the Sudano-Sahelian towns. Examples include Kung, Bouna, Boun-doukou, (Ivory coast) Kintampo, Atebubu, Kete-Krachi, Yendi, Salaga and Begho (Ghana), Sansane-Nango (Togo) Djougou, Parakou, Nikki (Benin) Bussa Nigeria (Fig. 1).

Case studies of early urbanism

The inland Niger delta (Jenné-Jeno and the Senegal river basin)

Research by McIntosh & McIntosh (1981; 1993) has revealed a continuous sequence of occupation from 250 BC to early historic times in the inland Niger delta a relative oasis located in the southern most basin of the middle Niger. The basic mainstay of the economy were intensive farming and fishing. Apparently a complex societal hierarchy was in existence in the

region well before AD 1400 and may well have derived from the way farmland was regarded in the face of unpredictable floods. In any case local (indigenous) trade seems to have been a vital element in the growth of this and other nearby towns and settlements even as this region developed into a major producer of surplus staples such as dried fish, fish oil and rice, all of which were items desired by neighbouring communities in the adjacent dry savanna and Saharan areas.

By the first millennium AD urban settlements with their definite character were in existence. At Jenné-Jeno, residences were built quite close together with narrow alleys, providing passages between houses. There may have been an open market place in a central location. The whole residential sector was enclosed by a wall built of solid rows of cylindrical mud brick and measuring 3.6 m in width at the base. The wall, probably built in the latter half of the first millennium AD, was evidently one of its most prominent architectural features. With the advent of Islam, the mosque made its entry as did some Arab architectural features. The wall appears to have been built as a defence against destructive natural floods, not against invaders. The very fact of the size of occupied areas and the packed nature of the built structure suggests that at various points in time in its history Jenné-Jeno and related settlements housed substantial populations. It seems also that a drought period of great severity occurring between AD 1300 – 1500 and following on a rather more humid period from around AD 800 to 1300 (Nicholson 1979, pp. 31–49) adversely affected parts of the Sudan-Sahel. Jenné for her part appears to have suffered depopulation and abandonment of settlement during this period (McIntosh 1983, pp. 25–46).

In both the Senegal river basin, the inland Niger delta regions and in some parts of Hausaland and Bornu (where *fadama* farming was practised, see below), there was a direct connection between unpredictable flooding, the economics of recession agriculture and the development of settlements based on population clustering as well as the evolution of stratified social systems from an inherently hierarchical model of common property. Where defining levels of agricultural intensification are based on returns per unit of labour (as Park 1992 does) rather than average returns per hectare of land (e.g. Boserup 1965, p. 17) it is seen that recession agriculture fits in as an annual version of full fallowing and is comparable to forest – fallow and riverine agriculture in other contexts. This finding has significant implications for differentiating on the basis of the underlying farming system (that is where farming is known to be the principal factor) for distinguishing between types of residency both as regards their size, density of population and arrangement, shape and structure of settlements.

Recession based agricultural production in the Senegal river valley appears to have varied both directly in relation to maximum flood levels and also in relation to the duration of the flood in particular parts of the valley. The latter depends on rains in the Guinea highlands (the headwaters of the Bafing-Feleme, a main branch of the Senegal) or in the watershed of the

Sahel tributaries of the Senegal, located to the east, and on the local rainfall. As noted by Park, if properly inundated, the soils with high clay content support agriculture for a full growing season without more water.

The Senegal river valley (Fig. 2), though fairly flat in its flood plain, displays a series of micro-variations in elevation such that floods of a given level do not cover all areas of lower elevation because of intervening higher lands. There is thus an inherent risk factor – further heightened by the fact that silt deposits of the flood regularly remake the micro variations of the flood plain and redistribute the best soils. It seems that one way in which some peoples living in this region tried to adapt to and contain this risk has been to reallocate land from common property such that in this basin, stratification involves both ownership of land and a system of tithes and obligations. State systems which were developed in this river valley from the first millennium AD used such devices and complicated systems of land tithes are still found throughout this region. In this system the spectrum of land quality is made to correspond to a spectrum of tenure rights – such that different categories of people have higher or lower priority rights accompanied by lower or higher obligations in tithes. The primary basis for determining who cultivates what quality of land, is claims to descent from original settlers, and high status – the nearer one is to being descendant of original descendant, the greater claim he has to good quality land, while descendants of free service groups and castes and descendants of slaves and slaves are at the lowest rung of the ladder.

The different interrelated spectrum of rights, land, obligations and status, are shown by Park (1992) to add up to a sophisticated form of risk management integrally linked to common property and social stratification. Although Park's analysis was focused on Pulsar society in the middle Senegal river, his findings seem to apply generally to the historical societies and states of the Senegal river valley that are stratified (the Wolof and Soninke states have also been either caste or slave owning societies) and to account for such stratification. It certainly also points to a variant of the clustering and centralising type of settlement which intensive forms of agriculture are likely to give rise to when other factors especially socio-cultural do not override their prominence. This is also a model for common property in which hierarchy and inequality are fundamental. Park (1992) sees the available data on flood regimes and cycles as supporting two claims, namely (1) that variability was such as to have a major impact on production and the amount of optimal lands and (2) that the regular range of the flood covered a spectrum including floods inundating more land than could be cultivated by a long term resident population without large scale storage or trade in food stuff. This has significant implications for demographic dynamics and the development of one version of socio-economic stratification and seems to fit in very well with climate and archaeological data from the river Senegal valley.

Notably enough very large sites abound in the middle part of the river Senegal valley, which seem to have constituted a veritable urban network. In the view of Becker and Bocoum

(In Press) the very high proportion of sites recorded in the provinces of Toro, Lao and Nguenor on the southern bank (Figs 1, 2) are a true reflection of the areas with exceptionally favourable bioclimatic conditions. Situated as it is between two unfavourable bioclimatic zones, semi-desert both to the north and to the south (Ferlo), the middle valley appears like an abundant oasis which has attracted populations since early times.

The sites of the valley range from about the fourth century AD (Sincu Bara, Tulel Fobo) through the ninth to eleventh centuries AD (Ogo etc.). At the spatial level about thirty sites are more than 25,000 m² and the site of Sincu Bara for example is said to extend over 67 hectares (Jenné-Jeno is c. 33 hectares). Their urban character is underlined by the diversity of production activities. Architectural remains indicate circular houses possessing compartments made of clay applied on a vegetal framework. Becker and Bocoum (In Press) see multi-functionality and the development of trade including long-distance, as the most significant features of these sites. The exchange network involved production of iron on both banks for export, and bronze and copper were trade items. The valley clearly facilitated the development of a particular urban culture by offering immense opportunities for agriculture, fishing, hunting, and serving as an incomparable line of communication, as cross road for exchange and a zone of contact for several Senegambian peoples who either resided or passed through there.

There seem to be evidence for early urbanism in some other parts of this region besides the Senegal river basin. For instance it has been inferred from the sophisticated structure of the burials and the strong possibility that some 903 tumuli in the Saloum delta housed up to 18,000 individuals; that shell mounds located at the mouth of rivers Senegal Saloum, Gambia and Gasamance, as well as Cape Vert peninsula may reflect urban populations who specialised in the exploitation of shells. A tumulus zone covers northern and west-central Senegal, and tumuli are mixed with megaliths in an intermediate zone. The fact that they occur most heavily concentrated around water sources such as the Senegal valley and rivers Saloum and Sine, may also be very significant in this connection.

Hausaland

To the far east, the main states of central and eastern Hausaland were already well established by the fifteenth century. And it seems that as Sutton (1976) suggested the history of Hausaland in the present millennium has been distinguished by a westward push from the Hadejia-Daura-Kano region to that of Sokoto and beyond.

Viewed ecologically the emergence of Hausa as a cultural identity expanding from east to west, involved among other things the *hausalization* of the lands, the conversion of bush and woodlands into park land and open savanna, with a marked reduction of the tse-tse infested areas and the increasingly intensive exploitation of the land for the cultivation of several grains, and a fair degree of cattle keeping.

The growth of complex settlements among the Hausa appear to have commenced from fertile hill bases such as exist in eastern Hausaland. From such fertile points and perhaps also

the valleys of the western end of the Chad basin where damp *fadama* cultivation was developed, occupants (or colonists) appear to have expanded into the more open plains, clearing these to grow millet and sorghum by relying on the annual rains.

Among other (subsequent?) important points of Hausa settlement/colonization were (1) northern Zazau and Katsina including Katsina lake at its southern end in the early centuries of the present millennium, and (2) the plains of Zamfara and Kebbi (beyond modern Sokoto) some where around or before the fourteenth–fifteenth centuries AD. The fifteenth century appears to have marked a watershed in the history of both Guinea and savanna regions. Not only was it the period when Songhai, Oyo, Bornu and Agades rose to fame and power, but also the time when the city states in eastern Hausaland Kano, Katsina and Zazzau became prominent within the cultural and commercial networks of a Sudan and a Sahara which were becoming Islamic (Figs 3, 4, 5).

Nature of the earliest complex settlements

Sutton (1976) has suggested that the earliest towns of Hausaland came into existence as a result of population expansion which followed a pattern similar to that of Jenné-Jeno before Islamic intrusion. According to this thinking, it was in the main an agricultural and rural process marked by cultivation of grain crops, the use of iron, abundant in the region not only for clearance but also for manufacturing the large Hausa hoe used for breaking the hard soil of the plains. It is suggested that livestock was also important because Hausaland is blessed with grass and water at least during the rains and the earlier part of the dry season, and is mostly free of tse-tse flies. In fact Sutton suggests that both the extent of grass and the confinement of tse-tse were partly the result of agricultural land clearance followed up by pasturing cattle both on the stubble and on waste grasslands. This thesis sounds plausible but it also touches on one of the problems we are here concerned with: Just what parts did extensive and/or intensive forms of agriculture play in the growth of early Hausa town complexes?

Zaria case point

A number of boundaries of ecological significance separate Zaria, Zazan, from the bulk of Hausaland lying farther north. Its vegetation belongs to the northern Guinea savanna zone and its soils to the group termed ferruginous tropical soils. The northern limits of both of these are found approximately half way between Zaria and Kano. The northern limit of cultivation of yams, the staple crop most often associated with the Middle Belt, lies in the vicinity, and several minor crops also reach the northern limit of their distribution. Zaria lies to the south of the limit of tse-tse free pastures, although large scale clearance schemes have recently improved the picture. Finally because of its basement complex geology, there is a characteristic scatter of inselberg formations in contrast to the areas underlain by sedimentary formations in northeast Hausaland.

According to Mortimore (1970) the cultural complex associated with inselberg settlement sites in this area probably cultivated *Ensete gillefie* (closely related to *E. edulis*, a staple food crop in parts of Ethiopia) and acha or hungry rice (*Digitaria exilis*) (Fig. 6). The artifacts of this cultural landscape included pottery, polished stone, axe heads and wedges, grinding stones and portable stone mortars and terra cotta figurines – which apparently have stylistic affinities with Nok figurines dating back to at least the fifth century BC in the Middle Belt of the Jos plateau. A distinctive settlement feature is degraded wall systems comprising earth ramparts or stone walls.

Inselbergs were favoured probably because they offered a variety of fertile lands together with defensive advantages especially later on against slave raiders. Their selection for permanent settlements in preference to other locations produced a concentration of the agricultural population on the interfluves (where inselbergs normally occur) and away from the rivers. The Hausa distinguished settlements called *gari* (usually translated town) or smaller settlements of politically dependent status and *Birni* (usually translated city). Both as reported by Mortimore (1970) were normally surrounded by walls. By the nineteenth century truly dispersed settlement, such as are found around Kano appear to have been rare in Zaria and its environs before colonial rule. Earliest *gari* settlements of Zaria apparently developed from ancient villages at the feet of inselbergs and so are of direct interest to us.

In the recent pre-colonial era, it seems that *gari* settlements, especially where they were the seat of important titleholders or client chiefs, these often attained considerable size, and their walls made them places of much more consequence than the European word ‘village’ would suggest. Would this also be true of the earliest *gari* settlements? The *Birni* for its part usually grew as a centre of government overriding previously held loyalties and having, control over a substantial tract of territory, or *Kasa*. The power of its ruler or *Sarki* seems always to have rested on the delicate balance between new centralising forces and often much more deeply rooted disintegrating tendencies? The control of trade and valuable natural resources, such as iron and the provision of effective security were basic to the successful growth of the *Birni*, while the religious significance of hills such as Kufena or Turunku may have helped to attract migrants.

Tradition collected largely by colonial administrators seem to indicate that Turunku was the seat of the ancient state of Zazzau and was ancestral to Birnin Zaria. Located 42 km south of Zaria City, this site, like many parts of Zaria region, is characterised by residual hills associated with porphyritic massive granite and granite gneiss (Thorp 1970). These hills take up over a third of the settlement while the rest is made up of gently undulating plains. The inselbergs are a source of many streams and rivers, and water supply may have been an important factor for its occupation in early times. Deep soils of weathered material are found close to the inselbergs and the valleys have dark grey, poorly drained clay soils (locally called

fadama) but of exceptionally high agricultural value being rich in nutrients and an excessive water balance.

As reported (Effah Gyamfi 1986) most distinctive features of Turunku are its outer and inner walling systems. The outer wall enclosed a total area of about 6 km² and shows up on the aerial photograph as a roughly rectangular feature with the eastern wall some how shortened. Streams take their course from the inselbergs (which the outer wall completely encloses) and radiate outwards. It seems to be an earth rampart characterised by an outer ditch system which varies in width from 10 to 2 metres and in depth from 2 metres to 50 cm. Dry-stone walling is prominent in areas (especially parts of the western wall) where boulders of granite and gneiss abound. In these sections, a ditch system was also present no matter however narrow and shallow. Effah-Gyamfi interprets this as suggesting that earth was dug to strengthen the stone walling, or more probably to increase the effectiveness of the defensive character of the wall. Also present in the outer wall were numerous gaps varying from 2 to 9.5 m.

Generally, while the outer wall encloses a group of inselbergs – the bulk of which are found in the eastern part of the site, plains occur about half a kilometre (and 1 km in the case of the northwest) away from the outer walls on each side. Because most of this area is devoid of archaeological remains, writers have suggested that such open lands are a feature of ancient west African urban centres – enclosed to offer agricultural lands in times of siege. However, Effah-Gyamfi (1986, p. 124) is of the view that one of the major aims for the construction of the outer walls was to enclose all the groups of the inselbergs, which fact accounts for the shape of this wall following closely the pattern of the hills. Given this, it seems that at Turunku at least, the enclosing of the walls was a consequence of, rather than the reason for the construction of the wall. He postulates therefore that the main area of activity of the inhabitants was restricted to the hills and their immediate plains.

In the southwestern part of the site which he studied more closely, Effah Gyamfi discovered a complex inner walling system which encloses a wide plain of about 600–500 meters, and comprises walls with ditches and walls without. The walls with ditches appear to be of a more defensive nature than those outside and these all enclose the walls without ditches. The ditch system appears rather modest compared to the outer wall – being generally between 3 metres and 6 metres wide and not more than 2 metres at its deepest and its height from the bottom of the ditch to its crest at its highest not being more than 3 metres. However the earth rampart was often strengthened, like the outer wall with boulders of granite which are abundant on either side of the plains, while the end (or starting) points of the walls often join the hills only where these hills are extremely steep and high, suggesting that these walls with ditches were intended to protect the occupants of the hills.

The walls without ditches, the third category of wall systems at Turunku, are nowhere above 2 metres high and 2 metres wide. They are all enclosed by the walls with ditches,

whereas they on their part, as well as the large walls, enclose specific areas of the site, which Effah-Gyamfi calls enclosures. Whereas the massive outer walls have gaps, the inner ones do not seem to have these. Most of these walls have boulders of rock on them and in some section disused artifacts have been incorporated into the walls.

As noted by Effah-Gyamfi, the inner ditched walls were defensive; their scale and size, compared with the outer wall, suggest a more modest work involving a population much less than those who built and/or made use of the outer wall, although the style and method used appear to have been generally the same. The function of the early ditches and walls are obscure. What is clear is that they combined with the ditched ones to demarcate specific areas. It is not clear however, whether these areas represent different communities more enigmatic – being ditchless in all sides and containing only one recognizable mound. Effah-Gyamfi surmises that it could represent the household (or palace) of a person of higher status, namely the kings.

The savanna and the Middle Belt/ forest regions: general comparisons

Generally, in the drier savanna areas further north, agricultural activity appears to have always been restricted by the availability of water, and except where favourable climatic changes dictated otherwise, this activity together with settlements was usually concentrated in the southern margins of the Sahelian zone, and along the valleys of seasonal streams. Transport and communication of ideas and material items between the zones seem to have always been difficult except via the valleys of rivers like the Niger, Volta and Bandama. In the savanna regions on the other hand, east–west and south–north movements have always been easy using animals of burden overland and by means of canoe along the upper parts of rivers such as Senegal, Gambia, Niger and Benue.

If the presently known distribution of important sites is truly reflective of previous distributions, the northern fringe sections would seem to have been more important for human settlement history of the forest region than other sections of it. These sites are generally located in the more northern parts of the forest or in the south savanna where yams and oil palm originally grew more readily (Figs 7, 8) According to Connah (1987) by the end of the first millennium AD and perhaps earlier a sound agricultural system based on the rotational bush fallow cultivation of extensive areas of forest land cleared by slashing and burning and then abandoned to regenerate when soil exhaustion reduced productivity, had been developed upon the interfluves of the more northerly parts of the forest. This is particularly true of the belt of sandy loam soils in the eastern Guinea region where yam has an advantage over rice. By contrast the soils of the Sierra Leone/Liberia/western Ivory coast tend to be poor in bases, are concretionary and so are not very well suited to yam growing. The key consequence here with regard to settlement is dispersal rather than clustering.

The riverine states in the middle belt located at the confluences of rivers or the valleys, included Jukun/Kwararafa at the Gongola/Benue confluence, Igala/Igbirra at the Niger Benue

confluence (Figs 1, 3). Yawuri and Borgu were situated near rapids and island systems that broke up and diversified communication possibilities. On the other hand, the whole region of the middle Niger was for long famous for its textiles, its mats, its glass works, its brass-casting, leather working and crafts of every kind.

According to Gavin (1979, pp. 15–18) these riverine states almost certainly represented older foundations than those of the savanna region. As reported by him, traditions of Kano dating from the fourteenth century onward suggest that the long duel between them and the rising states of Borno and Hausaland lasted for at least five hundred years. Unlike their savanna counterparts these riverine peoples did not always found great walled cities. Rather they were relatively mobile, taking off in their canoes to new grounds when things appeared to be difficult, and returning sometimes to their sacred groves. Secondly their control of resources was of a different kind than that of the savanna states. When the latter went out and levied tribute on their subject settlements, the riverine states held fishing rights, salt deposits, antimony mines, canoe transport and lines of communication that virtually forced others to come to them.

In the tropical forest region the existence of pre-colonial towns is better known of for the eastern than for the central regions – principally because this area also witnessed the rise of centralized state systems such as those of the Ashanti; Yoruba Adja-Fon and Benin. The towns of Yorubaland, which are among the most visible, are grouped into three categories as follows: first generation – Ife, Oyo-Ile, Ilesha, Ila, Benin, Ketu etc. second generation – Edo, Igboho, Owo etc., third generation, Ibadan, Abeokuta, Ijanjue etc (Figs 5, 9).

Urban development in the eastern Guinea forest

Evidence of early urban settlements appear to be located within the savanna woodland and forest fringe region, an area in which the indigenous cultivars of yams and oil palm were and are fundamental to the people's economic livelihood, their social and religious systems and nutritional preferences. Centres of urban network development included central Ghana/Ivory coast and the Yoruba Adja Fon. In these areas archaeological and linguistic evidence strongly suggest that neolithic farming settlements were established somewhere during the climatic optimum period of 9000–2000 BC when savanna inliers within the forest presumably stayed open and that some, not all urban settlements developed out of some of these earlier settlements.

In all these areas the neolithic precursors cultivated yam and oil palms principally with a unique tool package which included hoe-like and pick-like elements. In addition they grew the cashew nut tree and several other plants (up to half a dozen in Ghana) whose use for cooking oils, medicine and soap is currently being revived from oral traditional lores. These farming societies at Kintambo in Ghana and Nok in Nigeria were authors of the earliest terra cotta art yet known in west Africa (Posnansky 1979; Stahl 1993).

Urbanization in central Ghana

Two of the important towns that are suggested to have grown out of such neolithic foundations in Ghana were Begho and Bono Manso. Among the important features of these towns were the nucleated market centres that were in contact with the middle Niger towns, especially in the Jenné area. Another important feature was the gradual development, perhaps as a concomitant of trade, of a series of technological processes, particularly brass casting and cotton weaving which became basic Akan technologies.

According to Posnansky (1987), a 200-year drought between 1300 and 1500 which is reflected in the lowest Bosumptwi levels (Talbot & Delibriay 1980) must have caused movement into areas with more surface water and better agricultural potential (Fig. 10). Whether this was so or not, noticeable changes occurred in the settlement patterns in the region with the growth of towns like Begho in western Brong Ahafo region into a large multi section (quarters) site that extended over several square kilometres in area, from about the twelfth century.

Significant features described as having been ushered in with the Begho era were (1) towns with numerous walled structures and passages, (2) large populations from 5000 to 10,000 and perhaps over and (3) division into various quarters based largely (later on) on 'ethnic' identities. And it seems that the movement of Dyula traders into the area also caused significant impact. However, archaeological work is yet to indicate the sequence and direction of development particularly as it relates to the influence of interregional trade and the nature of the earliest town levels.

Ethnohistoric sources also suggest as they do for Begho that trade in gold, ivory and kola influenced urban and (in the case of Bono Manso) state evolution. It seems however that Bono Manso lacked Begho's multifunctional suburbs, although it had a Kromo (Muslim Mande) section, an Akan royal capital site, and seems to duplicate to some extent Begho's picture of a continuing diversified complex of traditional specialist arts and crafts and subsistence economies (Effah-Gyamfi 1985).

Effah-Gyamfi postulated three distinct urban phases based on findings from surveys and excavations and nine radio carbon dates. According to this hypothesis in the early phase, thirteenth–fifteenth century AD, the urban site, meaning the built up section was relatively small (100 m²) as was the population (*c.* 4000) and buildings were of wattle and daub. However, slipped and painted pottery was found distributed over 3.3 km. In the middle phase, sixteenth–seventeenth century AD, the built up area was now larger and contained puddled mud houses continuously and compactly distributed and the population was up to 8–10,000. The people participated in long-distance trade as is witnessed by items such as imported domestic mica coated pottery; seventeenth/eighteenth-century glass beads and pottery and local smoking pipes. The late phase, late seventeenth to eighteenth century was marked by greater population density and greater political centralization. If the Bono Manso evidence is

valid, it means that urban phenomenon in this region was indigenous at least in its inception. The problem however is that as rightly noted by Anquandah (1993) the Bono Manso hypothesis of inception and development of urbanism after AD 1200 springing from improved agriculture, expanding local technology and commerce rests only on a few items of excavated local and exotic goods and rather heavily on the typology and distribution of pottery and occupation mounds.

It seems also that researchers in both Bono Manso and Begho view urban settlement solely in terms of the built up sections. There is need in my view to devise a more comprising approach and to study many more settlements in the area in order to answer outstanding questions particularly those concerning the systems of farming that were practised and the relationship between these practices and the established settlements, as well as the relationships existed between the other settlements of the region.

Urbanization in Yorubaland

Several patterns are discernible in the structure and form of Yoruba towns and these reflect the differences in historical and to a lesser extent geographical realities. The earliest and perhaps best known is the radial or wheel shaped pattern which is still discernible from the layout of such towns as Ife and Ilesha, Oyo and Ekiti (Fig. 9).

In contrast to this there is what has been described as the 'chess board' pattern and characteristic of towns like Ondo where compounds and quarters do not extend their boundaries outwards into agricultural land. Rather the metropolitan town is marked off from the relatively narrow strip of farmland surrounding it. There are also historically recent towns like Ibadan and Abeokuta where large populations were concentrated from the start in what was then devastated country. Newly founded groups arriving at these points, staked out claims to land over a wide area and built hamlets there, one of which often served several descent groups. In the case of Abeokuta in contrast to the blocks of land themselves, these hamlets were not associated with territorial boundaries. At Ibadan the reverse was the case. The military and other leaders given block grants of land proceeded to settle there with their retainers and relatives. Thus the blocks of land provided the basis for the older of the present day quarters usually named after the chief prefixed by the most important topographic element (Mabogunje 1968). Some writers have suggested that there has not been enough time for either the radial or chessboard type of settlement to develop in these new towns before modern pressures (e.g. commercialisation of land) began to exert their influence on their layouts. Is this really true?

True or not, different types of settlement recognised by the Yoruba and as outlined by Igue (1979) and Kraf-Askari (1969) include farming hamlet (*Ahere, Ibudo, Ago*), farmstead (*Aba, Abule*) village (*ileto, ilu ereko*), town (*ile alade, ilu oloye*). The Yoruba hamlet is a simple camp, a shelter situated at the heart of agricultural production, which the farmers use to

protect themselves against heat and rain. The farmstead which is more complex than the hamlet, consists of between one and five houses. Its function is essentially agricultural. The farmers live there from the beginning to the end of the week, before returning to their real residence. Sometimes the sojourn here could last up to three months. The village is different from the farmstead by the composition of its population, made up of several families and its function is more complex. The Yoruba 'village' has a market, traders and craftsmen. It has political and religious functions and it appears also to be the foundation of the Yoruba state.

As pointed out by Ojo (1966, Chapt. V) the status accorded a Yoruba town depended not so much on its size and population as on the traditional prestige of its ruler; on the other hand that prestige was itself affected by considerations of the size and population of the territory he controlled. Yorubas distinguish on these grounds between crowned or capital towns (*ilu ereko*). They further classify subordinate settlements into *oloja* (market towns), *ileto* (villages) *abuile* (hamlets) and *ago* or *aba* (camp settlements: Ojo 1966, Chapt. V). Of these it seems that *ilu alade* and *ilue oloja*, crowned towns and market towns pass as towns. In Yoruba political thought therefore it seems that each clustered settlement is the residential expression of the political unity of a small state. The ideal, as reported by Kraf-Askari (1969) is in practice contradicted by the frequent relations of superordination/subordination existing even between *ilu alade*. The population of most Yoruba towns seems to a large extent to be self-perpetuating. Accustomed to a traditional situation in which people live their 'real' social and political lives in closely nucleated settlements; they commute into the countryside for a livelihood, and even see sojourns in modern towns as living in a 'farm' (meaning they are there to make money, after which they will return to their real town). Such an attitude not only makes for a core population with a normal and stable demographic structure; it also explains the comparatively low proportion of strangers in most Yoruba towns.

Ancient Ife represents the first order of political centralisation, over the area of Yorubaland. Dated between 900 and 1500 AD, this settlement developed into a centre of quite exceptional importance in the economic life of the region both by virtue of its position in the region and because of its local resources, Ife was an excellent site for a major commercial and agricultural centre. Situated in the very middle of a marked northward bulge in the forest which is located almost due south of the eastward bend in the Niger below Bussa, (Shaw 1973) Ife, as Horton (1979, p. 100) notes, would have represented the shortest overland path for traders coming from the north; as well as an ideal collecting and dispatch point for the characteristic products from the coastal areas directly to the south.

Ife was also greatly favoured in terms of its immediate geographical environs. Lying in a high bowl surrounded by hills, but also forming a water shed of several rivers. Ife lands were at once better protected than most from the erosion which threatens when forest cover is stripped off, and at the same time reasonably well drained. Again out of the rainy season, these lands benefited from the moisture of fogs and clouds which condensed on the hills and drained

into the bowl. Yet again the lands received first benefit from the nutrient substances washed down the hills as a result of the weathering process. Such characteristics would have given the Ife environs a more than average potential for agricultural productivity: an important requirement for a large commercial centre requiring a locally generated food surplus to maintain the agriculturally non-productive component of its population. These factors contributed greatly to Ife's development at points in time in her history into an agricultural commercial, political and craft centre as indicated by evidence from archaeological, historical and ethnographic sources. As yet we do not know how the people related to these factors at specific points in the course of Ife's development.

In Yorubaland there are many towns whose population is smaller than that of some villages. Following from this fact, four essential elements physically characterize most Yoruba towns established under the influence of Ife and Oyo (i.e. relative to a village). These are the presence of an imposing palace mound which dwarf the other quarters; a market situated always opposite the palace; fortification elements including ditch and/or wall with shrines located near them, a central gate, sometimes of complex structure and roads which radiate out from the central area of palace and market through the gates to the outside world. Compounds which constitute residential units are grouped along these roads in wards or quarters. However, whether or not Yoruba towns derive from the peoples' traditional cosmological ideas, they certainly reflect the pattern of political realities within each settlement.

Benin

In his reading of the evolution of Benin city, Connah (1975) placed much reliance on an essentially Eurocentric view of the city (cf. Wirth 1938; Weber 1958; Wheatley 1971, XVII) as a form of social organization based on the occupational specialization and social stratification of a territorially based population which has acquired a formal corporate identity. This does not seem to be much help for understanding beginnings of town life in the Benin culture area and related parts of west Africa. For one thing in the entire Guinea region food production was based on various fallow systems which tend to extend rather than cluster settlements. In Benin there is clear evidence that the Edo peoples showed a preference for settling along interfluves, a practice which seems to be related to at least two ecological features. Firstly although upper interfluves were often not as fertile, they had less dense vegetation than the lower interfluves and were much easier to clear. Secondly they were much healthier settlement points – than the river valleys within the forest zones (Figs 4, 10).

Perhaps one of the outstanding features of Benin settlements are earthworks, *iya*. Darling's (1984) very comprehensive study of Bini/Ishan earthworks has revealed that these features range in height from one to over nine metres with an average height of about 3 metres; they constitute a slightly curved cluster stretching over 100 km long and about 6,500 km² in extent. The rivers (Orhriomo, Jamieson, Ethiopie and Osse) and the savanna and swampland areas, appear to have acted as natural boundaries. Striking features of distribution are their

absence in the western part of the Benin Kingdom, and southern Ishan; the positioning of Benin City on the southwestern periphery of the total cluster of their prominence in the northeast along the zones of the northern Ishan plateau and forest savanna ecotone. At the local level these earthworks are always found on the upper interfluves and not the valleys.

There are a few other earthworks of a comparable nature in other parts of the Edo-speaking area such as the massive city wall around Udo located to the west of river Ovia (Osse); the right angled compound wall of the old palace site at Usen, and a tiny 20-metre long segment fortifying Ikoha. Some *iya (ewala)* were also identified by Darling in parts of Isokoland in the Delta swamplands (Oleh, Irri and Emevor). Outside the Edo-speaking areas, earthworks in southern Nigeria have been recorded in the Yoruba, Igala and Igbo cultural areas.

The Linear earthworks and/or walls surrounding towns and kingdoms of the Yoruba are generally thought to belong to a sixteenth-nineteenth-century construction period. Even though complex accretionary patterns grew around the strongest of these settlements, the Yoruba do not appear to have developed any widespread network as the Edo seem to have done. The small widely spaced enclosures of the Igala hillforts are believed to be of sixteenth–eighteenth-century construction. No dating has been suggested for the field-like enclosures near Opi (Nsukha), but similar double walled boundaries further south at Igbo Ukwu are thought to be much later than the famous ninth-century burial nearby (Shaw 1978, p. 18).

Darling (1984) correctly points out that these variations in patterns of linear earth work produced them. It is also his view that the *iya/iyala* network of the Edo is unprecedented in scale and continuity. According to him it appears to be the most complete and representative expression of early settlement patterns of any whole cultural entity in southern Nigeria and the distinctive feature by which the early Bini/Isan culture can be recognized. Not only does this work also seem to have been constructed earlier than all the others, it supplies substantial material evidence for socio-political development in the forest zone during a period about which hitherto very little has been discovered (Fig.10).

Conclusion

In the settlement history of the region, complex land use combinations would appear to have been more typical only of the intermediate zones. In the course of establishing systems of farming the major crops of the zones (in the main rice, yams, the millets, and sorghums), various types of irrigation, flood retreat and fallow systems of farming were devised.

It seems also that there was not by any means an absolute (only some) correlation between type of farming and type of settlement, nor was there any necessary correlation between economic and socio-political systems. For example, the yam civilization of the Akan peoples even though an extensive agricultural system was developed and fostered by a centralizing political system. To the west of the Badama river the dry rice cultivators operated

more decentralized societies. The coastal Diola on the other hand established an intensive irrigated rice culture yet, remained an egalitarian and democratic 'acephalous' people. The inland Diola by contrast had a more extensive cultivation of dry rice, yet were more hierarchical with an Islamized social order. Indeed following a comparative survey of the rice growing peoples of the upper Guinea coast and its hinterland from the Casamance to Liberia, both these akin to the Diola and their Mande-speaking neighbours, Linares de Sapir (1981) concluded that the development of an hierarchical social structure in the area was as much owing to a process of cultural Mandigization as it was to agricultural practice.

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Captions

- 1) Map of west Africa showing first generation settlements and state.
- 2) Ancient settlements along the Senegal river basin.
- 3) States in western Sudan before 1800 (after Isichei 1983).

- 4) Coastal states before 1800 (after Isichei 1983).
- 5) Major states and settlements in Nigeria in the fifteenth century.
- 6) Vegetation/cultivation zones in west Africa (after Harris 1976).
- 7) Vegetation zones of west Africa (after Harrison Church 1974).
- 8) Yam cultivation on the west coast of Africa (after Coursey 1976).
- 9) Pre-colonial Yoruba towns.
- 10) Southern Nigeria highlighting the Edo and Igbo culture.