"FILLING GAPS IN AFRIC MAPS": FIFTY YEARS OF ARCHAEOLOGY IN AFRICA

by

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Hans Wolff was born on April 6, 1920 in Mainz, Germany. In 1934 his family went to Spain where he remained until 1937 when he immigrated to the United States. He attended Queens College, New York, from 1939-1941 and then transferred to Indiana University. From 1942-1946 he served with the Military Intelligence Corps. After the war he returned to Indiana and in 1946 obtained the B.A. magna cum laude in Linguistics and in 1949 a double doctorate in Anthropology and Linguistics (one of the first to be given by that department). In 1949 he was appointed to the faculty of the University of Puerto Rico where he taught for eleven years. His early work was in Amerindian languages, especially in Siouan studies, and in the teaching of English as a second language. While still at the University of Puerto Rico, he was invited in 1953 to visit Nigeria as a UNESCO expert on orthographies. He spent a year in Nigeria, and from that time his interest in Africa and African languages grew. He published widely on the languages and language problems of Nigeria and at the time of his death was one of the leading authorities on Yoruba. In 1960 he accepted an appointment at Michigan State University in the African Studies Center where he taught for three years. While at Michigan State he helped to found and to edit the Journal of African Languages. He also assisted in the early development of the West African Language Conference and for several years served as Chairman of the African Linguistics Committee of the African Studies Association. At the time of his death in September 1967, he was Professor of Linguistics at Northwestern University.
In the summer of 1930 I started my training in archaeological fieldwork by taking part in the excavations at the British Neolithic and Early Iron Age site of Hembury Fort, in Devon. There I met a girl called Mary Nicol, also working on the excavation; through her, shortly afterwards, I met Louis Leakey, who was then a Research Fellow at Cambridge, and whom Mary later married. I had already decided to work in Africa, but the meeting with Louis Leakey sharpened my interest in African archaeology. Thus it is that I have been concerned with African archaeology for over half a century, although it is not quite fifty years ago -- in 1938 to be precise (Shaw 1969) -- that I conducted my first excavation in Africa. At the time, scientific archaeology was only just beginning in Africa -- a fact which now, fifty years later, is not always appreciated in assessing the state of our knowledge. In this last half century archaeology has made a tremendous impact on beliefs formerly held about the past of the continent. This is one of the things I am going to speak about in this lecture. I shall not speak about archaeology's revelations concerning Early Man in Africa, as that story is really one that affects the whole of mankind, not just Africa, although it gives Africans considerable pride that the eastern half of the continent has now the best claim to be considered the 'cradle of mankind'. I shall be speaking about archaeology's contribution to the historiography of Africa in later times and about its effect in changing attitudes to the continent's past. However, to realise what the attitude to the African past was fifty years ago, we have to start a little further back.

In the eighteenth century, Jonathan Swift (1733) wrote:

So geographers, in Afric maps,
With savage pictures fill their gaps;
And o'er uninhabitable downs
Place elephants for want of towns.

(Plate I)
At that time interior Africa was unknown to the European world. Africa was known only by its coasts and as a reservoir of slaves which could be tapped, at vast profit for the slave-traders and slave owners and at vast misery and suffering for the slaves, to support the luxuries of the European and American upper classes.

In the nineteenth century that altered. The changed economic conditions of the industrial revolution operated in conjunction with Christian and humanitarian sentiment to abolish the transatlantic slave trade, and, later, the institution of slavery itself. The slave trade gave place to what was known as 'legitimate trade' along the West African coasts, when the outward thrust of the industrial nations of Europe caused them to pay greater attention to Africa as a source of raw materials and as a market for their goods. African rulers had firmly resisted any efforts by outsiders to gain control of the slave trade inland from the coast, and the malaria mosquito had been their ally. Similarly they resisted efforts by outsiders to gain control of 'legitimate trade' inland. However, the economic pressure from Europe proved too strong, for it was backed up by the discovery of quinine as an anti-malarial drug and by superior military technology -- aided by steam-powered boats and the electric telegraph (Headrick 1981). You remember the lines of Hilaire Belloc (an anti-imperialist) who wrote (1970, p. 184):

> Whatever happens we have got
> The Maxim gun and they have not.

This was a true appraisal: in 1903 the decisive battle by which Lugard's forces conquered Sokoto and ended resistance to the British in Northern Nigeria was fought against several thousand Fulani cavalry and foot soldiers by five hundred men who had at their disposal Maxim guns and light field guns firing shrapnel. Two weeks earlier a British force of two officers and forty-five men had defeated two or
three thousand Fulani cavalry. Things didn't always go well, however, and their technology, like all technology, sometimes let the conquerors down. You remember another British poet, this time an imperialist one, Sir Henry Newbolt, who wrote (1919):

The sand of the desert is sodden red --
Red with the wreck of a square that broke --
The Gatling's jammed and the Colonel dead,
And the regiment blind with dust and smoke.

Another occasion when things went wrong was when the British Government tried to force the Kingdom of Benin to open its doors to British trade. In 1896 the British Consul-General asked permission of the British Government to visit Benin City and depose the Oba. For lack of the necessary troops to achieve this smoothly permission was refused, but the acting Consul-General decided to visit Benin anyway. He sent a message to the Oba informing him of his intention, but set off without waiting for a reply. On the way he was met by a messenger from the Oba saying that he was engaged in an important festival during which he was not allowed to see any non-Bini. The acting Consul-General's disregard for this resulted, on 4 January 1897, in six out of the nine Europeans in the party and two hundred Africans being killed. The ensuing British Punitive Expedition (Plate II) captured and burnt Benin and took back to Britain the thousands of Benin works of art which astonished the European and American world and began to undermine the idea that African culture was non-existent. (Plate III) Nevertheless, the belief persisted for a long time that it must have been the Portuguese who taught the Bini the art of brass-casting, and this was still being put out by the British Museum when I was an undergraduate (Joyce 1931). (Plate IV)

In the sixteenth century there had been little colour prejudice as such: Africans were just one kind of 'foreigner', and in common with other foreigners were disliked and mistrusted,
but they were not looked down upon as an inferior order of beings; in other words, the attitude may have been xenophobic, but it was not racist (Curtin 1965, p. 34). However, once the Atlantic slave trade had become established it became harder and harder for the consciences of Europeans to stomach the idea that what they were doing they were doing to equals; thus the slave trade encouraged the misconception that the enslaved were 'primitive,' they were backward, they had no culture; in fact it fostered the comforting illusion that they were not really human at all. Understandably this nefarious doctrine persists where blacks are still exploited, with cruelties as great as those of the slave trade, for the economic benefit of a ruling white minority; the wealthy whites can only bring themselves to inflict these cruelties by continuing the pernicious dogma of the innate inferiority of the black man. Fortunately the case of South Africa is an anachronism in the modern world, and its racial policies are doomed to failure in the long run; that is little consolation, alas, to the present generation of blacks.

The eighteenth century English philosopher David Hume declared that Africans had 'no ingenious manufactures among them, no arts, no sciences' (Davidson 1959, p. 20). At the turn of the century the German philosopher Hegel supported this idea and added that it had always been so: Africa, he said, 'is no historical part of the World; it has no movement or development to exhibit.' Its Negro peoples are 'capable of no development or culture, and as we see them at this day, such have they always been.' (Hegel 1894, pp. 102-3). The early nineteenth century English novelist Trollope characterised the African as making 'no approach to the civilisation of his white fellow creatures whom he imitates as a monkey does a man' (Davidson 1959, p. 20). When Africa began to be opened up in the nineteenth century, travellers and explorers lent support to the idea that Africa was without culture, and compared the continent
unfavourably with parts of Asia, where Europeans had for long been acquainted with literate cultures responsible for fine buildings in stone, wheeled vehicles and works of art. When H.M. Stanley published his book a hundred year ago about his travels and explorations in Africa he called it *In Darkest Africa* (Stanley 1890). His choice of that title sprang from the habit, general at that time in Europe and America, of looking in from the outside onto something dark and obscure, because no one at the time knew anything about the history of inner Africa.

So we can see how a continuation of the idea of African stagnation and lack of history served as a psychological prop to justify the commercial exploitation of Africa in the European imperial systems of the end of the nineteenth century and the first half of the twentieth. This alleged stagnation and backwardness of the African at the same time provided a totally different kind of motivation for some Europeans - the missionaries, the doctors and the educators - the road-builders and many administrators too - the motivation to bring enlightenment, as they saw it, to the benighted African and to improve his lot. Kipling (1931, p. 320) called this task 'the white man's burden', a phrase subsequently and understandably mocked with great hilarity for its pretentiousness, but which nevertheless encapsulated a genuine dedication, however patronising it often was in its attitude and paternalistic in its stance. Such is the complexity and irony of historical processes that these two very different strands were intertwined in the colonial systems imposed on Africa.

So deeply entrenched in the European mind was the idea that Africa had no history, no past culture, that wherever, in the process by which Europeans became more familiar with interior Africa, anything turned up which appeared to contradict this, it was attributed to a non-African source,
or at any rate a non-negro source. For example, when Europeans first came upon the walls of Great Zimbabwe, with one exception (Randall-MacIver 1906) they did not stop to consider that they might have been built by Africans: Africans did not build in dressed stone, they never had, they were incapable of it - so ran the orthodox doctrine. Great Zimbabwe was in turn attributed to immigrants from Arabia, from Phoenicia, from Egypt. Even after a British archaeologist had declared in 1931 following her excavations there, that the ruins were the work of Africans and of mediaeval date (Caton Thompson 1931) successive white Rhodesian governments, up to and including the last before legal independence, refused to accept these findings and perpetuated in official guide books the old fictions about immigrants from the north. (Plate V). Not only was this considered more romantic and more attractive to white tourists, but, more importantly from the government's point of view, it was of political significance as a conceptual bulwark against black independence. Not only has every subsequent archaeological investigation confirmed and amplified Caton-Thompson's findings of 1931, but more recent work has shown convincingly how Great Zimbabwe developed, and declined, from the eleventh to the fifteenth centuries as a result of indigenous processes of growth and decay (Garlake 1973, 1976, 1978); I shall say a little more about this later.

When European administrators started coming into contact with indigenous African political systems and anthropologists began studying African societies, they were often struck by the existence of dignitaries whose authority and function was as much religious as political, chiefs whose office was regarded as sacred, whose person was surrounded with an aura of sanctity, and whose duties were as much ritual as administrative. The anthropologists and colonial administrators were impressed by these institutions and gave to them collectively the name of 'divine kingship.' This
was a concept derived from their knowledge of the divine kings of ancient Egypt. Indeed, was it not likely, they thought, that the idea of divine kingship had been introduced from Egypt? This fitted in well with the diffusionist ideas of the time, which explained any changes in culture, anywhere in the world, as due to invasion, immigration or some other form of population movement rather than to autochthonous development. The achievements of ancient Egypt had long captivated the imagination of Europeans; there was one school of thought which attributed all civilisation, in Europe and elsewhere, to diffusion from Egypt. According to this theory, ancient Egyptian missionaries, prospectors and explorers had carried their culture to many distant parts (Smith 1915; Perry 1923). This diffusionist theory greatly appealed to colonial administrators and others who joined in the hunt for things Egyptian in the territories in which they worked (Delafosse 1900; Johnston 1913; Talbot 1926; Meek 1931; Seligman 1930, 1934; Palmer 1936; Wainwright 1949; Jeffreys 1949; Meyerowitz 1960). This was very much a current idea when I first went to Africa nearly fifty years ago. Furthermore, it was conceptually easier to assign the idea of divine kingship to an Egyptian origin because it did not involve disturbing the widely prevalent ideas about Africa's own lack of cultural development and political sophistication. Although Egypt was within the borders of the continent of Africa as defined by geographers, it was not regarded as being part of black Africa. So the quest for Egyptian origins became popular. It is somewhat ironic that the advocacy on the part of colonial administrators of Egyptian diffusionism was accompanied and followed by the first generation or two of indigenous African historians (Johnson 1921; Lucas 1948, 1970; Diop 1955, 1960, 1962). Egypt was part of Africa, it had a great and glorious ancient civilisation and it was felt it gave added lustre to African pride to trace cultural or even physical ancestry to ancient
Egypt. However, the arguments purporting to establish the connections have been pretty convincingly refuted (Westcott, 1957; Parrinder 1956; Mauny 1960; Sainte Fare Garnot 1961, pp. 99-106; Goody 1971; Leclant 1972; Okediji 1972). The cultural parallels pointed to for some African peoples are no more than can be pointed to for many others in different, and less likely parts of the world; and there are some areas of culture where there are no parallels at all; the philological arguments are dismissed as entirely unsound by modern linguists; the arguments alleged from physical anthropology are equally unconvincing; and the criteria for political parallels need to be much more carefully specified.

What does not seem to have been noticed by those who desire to gain some reflected glory for black Africa from the splendour that was ancient Egypt is that this is almost a tacit admission that Africa is without past culture and historical evolution and development of her own. I think it is a fair claim to say that one of the great contributions of African archaeology over the last fifty years is to have demonstrated that this concept is false, and to have revealed manifestations of artistic culture and processes of historical growth that are comparable with any in the world. Black Africa has her own glories and needs no borrowed light from ancient Egypt. Nevertheless the emotional attraction of the 'Egyptian connection' dies hard (Obenga 1973) and it has even been used in reverse, as it were, with the attempt to show that ancient Egyptians were negroes and that ancient Egypt was a negro civilisation (Diop 1981). However, there are few scholars who support this idea, as it is based on out-of-date authorities and an outmoded concept of race (Mokhtar 1981). It is understandable that, because whites at one end of the continent would deny past African culture and history, the grandeur of ancient Egypt at the other end of the continent should be seized upon as a counterblast; but the falsity is better refuted by an objective appraisal
of past African achievements than by emotional manipulation of the evidence.

At one time it was said that negroes had only been in existence in Africa for a comparatively short space of time and that, as such things go, they only had the briefest ancestry. Even recently this has been repeated, with all the authority of the UNESCO History of Africa, in the statement that there were no negro types before about 4000 BC (Ghallab 1981, p. 63). In fact, in spite of the poor preservation of bone in many parts of Africa, in the last twenty years archaeologists, including myself, have unearthed remains of negroid types from much earlier contexts: from West Africa dating back 11,000 years (Brothwell & Shaw 1971), and from East Africa dating back 17,000 years (Gramly and Rightmire 1973). In addition, prehistoric skeletal remains from East Africa, whose 'caucasoid' affinities were formerly stressed, have more recently been shown to have definite negro cranial features (Wolpoff 1980, pp. 331-9; Howell 1982, p. 147).

The attitude that Africa had no history and no past culture worth talking about still persists among some provincially-minded historians and prehistorians. It is not all that long ago that a Regius Professor of Modern History at Oxford delivered himself of the oft-quoted judgement: 'Perhaps, in the future, there will be some African history to teach. But at present there is none: there is only the history of the Europeans in Africa. The rest is darkness, like the history of pre-European, pre-Columbian America. And darkness is not a subject of history' (Trevor-Roper 1963). Not only did this show ignorance of what he presumed to talk about, but it also displayed an arrogant Europocentrism when he conceded that if all history was equal we might be allowed to 'amuse ourselves with the unrewarding gyrations of barbarous tribes in picturesque but irrelevant corners of the globe.' It also revealed the contempt commonly shown by the professional historian towards prehistoric archaeology, and the failure to
understand what it can contribute to the understanding of mankind – an understanding which, it can be argued, has often been clouded rather than clarified by the shorter perspective of historians.

Some archaeologists are not much better. The Disney Professor of Archaeology at Cambridge only fifteen years ago declared that 'Africa.....had.....already lapsed into provincialism during the late Pleistocene. For this time much of the continent remained a kind of cultural museum .....without contributing to the main course of human progress' (Clark 1969, p. 181). Professor Clark somewhat begged the question of what 'progress' is, although he seems to see it purely in terms of technology. But he is not even right about this: in the period in question, the great technical innovation of the time in lithic technology is known to archaeologists as the 'backing' technique, whereby one side of a flint blade is left sharp and the other intentionally blunted, probably for hafting. This innovation occurred in Africa as early as, and perhaps earlier than, it did in Eurasia (Carter and Vogel 1974; Van Noten 1977). And if 'progress' is to be measured by technology, there is a good case to be made out for the systematic use of marine resources having been pioneered in Africa (Wolpoff 1980, p. 332) and for the bow and arrow having been invented in that continent also. In fairness to Professor Clark, one should add that in a later edition of the same book he has omitted the passage quoted – as a result, I believe, of having been taught better by Africanist archaeologists! (Clark 1977).

Let us then look very briefly at one or two examples of the past artistic and industrial achievements of Africa out of those which have been brought to light in the last fifty years – we do not have time for more. They will serve to refute David Hume's allegation that Africans had 'no ingenious manufactures, no arts, no sciences.'

Nok is a tiny village to the west of the Jos Plateau almost exactly in the geographical centre of Nigeria. It
has given its name to a very remarkable series of terracotta figurines, because that is where the first find was made. Nok lies in a valley bounded by hills from which the tin was eroded in the long-distant past and redeposited in the alluvial deposits of the valley. These deposits of sands, gravels and clays have attracted both ancient and modern exploitation for their contained tin, and it has been in modern open-cast mining that most of the Nok terracottas have been found, sometimes at very considerable depths below the surface. The first specimen was recovered in 1928 and placed in the collections of the Mines Department at Jos, where it remained until a second one was found in 1943 and recognised as being in the same distinctive artistic style (Fagg 1977, pp. 11-13; Shaw 1981). (Plate VI) From then on a watch was kept on the tin-mines and many more specimens were recovered. [A number of slides of Nok figurine material was shown at this point.] Nok style figurines have now been recovered from an area to the west and south of the Jos Plateau some 300 miles long, but whether this represents a true distribution or is influenced by the incidence of mining operations remains to be seen. Initially efforts were made to date the terracottas by the geomorphology of the deposits in which they occurred but this proved unsatisfactory. With the advent of radiocarbon dating it was possible to obtain dates from carbonised wood in the alluvial deposits; a range of dates from 900 BC to the fourth millennium BC was obtained from specimens in the same deposits as the terracottas; this only provided limited information but a date of AD 200 from a clay layer above the terracottas gave a terminus ante quem. However, more precise dating information became available when the recognition of Nok style figurine material at Taruga led to the discovery of its association with a series of iron-smelting furnaces. Radiocarbon determinations on a dozen samples of charcoal associated with the furnaces indicated dates from the fifth century BC. Thus the Nok people were not
only superb artists in terracotta (and probably in wood as well), but they had also mastered the industrial process of producing iron from its ore, no later in time than this advance in technology occurred in Britain. Nor in this respect is Taruga isolated: from the other side of Africa, near Lake Victoria, has come evidence from the same early time-period for iron-smelting with a technique and a sophistication of metallurgical process that was able to produce carbon steel (Schmidt and Avery 1978). So much for Hume's imputation that Africans had 'no ingenious manufactures, no arts.'

For my second example we move forward 1500 years from the iron-smelting furnaces of Taruga and Kataruka but we are still no nearer the present than the century before the Norman conquest of Britain. Five hundred years before Columbus discovered America, there was a community producing bronze castings of amazing virtuosity in South-Eastern Nigeria. These were revealed in excavations at Igbo-Ukwu some twenty years ago (Shaw 1970, 1977). One site represented the burial chamber of a personage of great wealth and status, another the remains of a storehouse of ritual vessels and regalia. From the latter, among many other things came a bronze casting of a pear-shaped vessel set upon its own pedestal and the whole enclosed in a rope-work pattern which stands clear of the rest except where it is attached at top and bottom. (Plate VII) There were many elaborate bowls of different shapes, some on pedestals; a number of lustral shells, staff ornaments, and pendant ornaments [these were all illustrated by slides]. The burial chamber also yielded bronze and copper objects, such as a bronze casting of a highly stylised leopard's head set on a copper rod. This illustrates that the Igbo-Ukwu smiths were not only superb craftsmen but also that they had a practical understanding of the metallurgy involved. The cire perdue bronze castings are made of an alloy of copper, tin and lead, which is ductile and casts well, but objects of copper, which does not lend itself easily to casting, have been wrought by hammering, bending and chasing, which you can do to copper more easily than you can to bronze. There was a third site
at Igbo-Ukwu, which also produced intricate bronze castings and like the other two sites, magnificent examples of ceramic art. Originally there were five radiocarbon dates for Igbo-Ukwu, four of them falling in the ninth century AD and one in the fifteenth. Controversy arose because some people found it hard to believe that works of such sophistication were produced in south-eastern Nigeria a thousand years ago; they preferred to put their faith in the one fifteenth century date and disregard the four earlier ones (Lawal 1973). There is now a good case for regarding the specimen which produced the fifteenth century date as contaminated, especially as three new radiocarbon determinations just received add confirmation to a belief in a tenth century date (Shaw 1975b, 1983).

We have now looked at two examples in which archaeology has given the lie to old assertions that the past of Africa could boast of no great achievements in artistic creativity or skillful craftsmanship. In fact, for some time now it has only been in the most ignorant or reactionary circles that one has had to argue the case. However, there is an even more important job to be done, although a more difficult one - and it is being done. This is to show historical process at work and to explain how the societies that produced these works of art came into being, grew and developed - and, often, declined. Hegel, you remember, said that Africa showed 'neither change nor development.' As the evidence accumulates, it is becoming increasingly easy to show how untrue this is. Trevor-Roper, in the article already quoted, was right in one thing, when he said that 'history is essentially a form of movement .... not a mere phantasmagoria of changing shapes and costumes....,' implying at the same time that the past of Africa had no 'movement' and was a 'mere phantasmagoria of changing shapes.' Our present knowledge enables us most emphatically to deny this.

Not only is it established that Great Zimbabwe was built by Africans, but we are beginning to get a much clearer picture
of the kind of society responsible for it, how it rose to ascendancy, the history of its external relations, and what may have caused its decline. This knowledge has come from a combination of a programme of archaeological excavation and fieldwork, collecting oral histories, and above all of not studying Great Zimbabwe in isolation but in conjunction with all the stone ruins of the area, and of setting them in their geographical and ecological context. Thus we can see how from the tenth to the twelfth centuries AD there was a small village built of mud and sticks on the Hill at Great Zimbabwe, occupied by a group derived from the Leopard's Kopje culture which had appeared in the ninth/tenth centuries in southwestern Mashonaland. (Plate VIII) This village was one of a number belonging to different cattle-owning communities distributed over the plateau, mostly near its edge. A transhumant pattern of pasturing was followed, the cattle being taken down to the moister lowlands during the dry season, when the activity of the trypanosomiasis-bearing tsetse fly was minimal, and the cattle being brought back to the tsetse-free plateau during the rains. These communities came to have their headquarters in complexes of stone buildings, of which the largest and most striking was Great Zimbabwe. By the thirteenth century Great Zimbabwe had ceased to be an ordinary peasant village and had become the central settlement of an elite which had grown out of peasant stock. The governing and organising body, probably headed by a royal personage of some kind, was able to control a labour force employed sufficiently regularly to produce specialised craftsmen. The need to protect large transhumant herds of cattle from marauders may have helped to centralise authority and to put wealth in cattle into the hands of a ruler and his court. The religious cults of Great Zimbabwe may have come to be regarded as having importance for the health and fertility of a wide area. The buildings of Great Zimbabwe are not designed for military defence; they were designed to symbolise the power and authority vested in
the ruler, and to impress the beholder - which they still do. Great Zimbabwe's wealth was not directly derived from extracting gold, as other stone ruins lie nearer to better sources of gold. However, Great Zimbabwe was better placed geographically to gain control of the gold trade as it passed from the Matabele goldfields to the west of Great Zimbabwe down the Sabi river to the Indian Ocean; it is no coincidence that the time of greatest prosperity for Kilwa, the great trading port on the East African coast, was the same as that for Great Zimbabwe, namely in the fourteenth century. The population has been estimated between 3000 and 10,000 and by the middle of the fifteenth century it had probably become too big for its territory to support; the soil may have become exhausted and the pasture lands overgrazed; and the rise of the Ingombe Ilede people to the north may have disrupted the long-distance trading pattern. The Great Zimbabwe people moved north to found the empire of the Mwene Mutapa, and Great Zimbabwe itself only survived as the centre of a religious cult. Thus here at Great Zimbabwe we can see 'movement' all right, and are beginning to understand the factors in its growth and decay, without outside intervention.

The centralisation of resources and of authority observable at Great Zimbabwe was only made possible by centuries of food production. Great Zimbabwe could not have supported her architects, builders, masons, goldsmiths and carvers if she had not had an agricultural system producing a surplus with which to maintain them. It is universally acknowledged that none of the ancient so-called 'civilisations', either of the Old World or of the New, could have arisen except on the basis of food production. Europeans and North Americans, in the technological supremacy they enjoy at this moment in history, are commonly quite unaware that they owe to others the domestication of those plants and animals upon which their whole economic fabric is founded and upon which their very subsistence depends. The timing of courses towards central-
isation, urban life and state formation is intimately related to the timing of the change from food-collection to food-production (Shaw 1975a). Europe had her domesticated plants and animals handed to her on a plate. This could not happen in the same way in sub-Saharan Africa, because its separation from the winter rainfall regimes of temperate latitudes by the Inter-Tropical Convergence Zone meant that sub-Saharan Africa could not take over wheat and barley in the way Europe did. Africa had to repeat the process whereby wild grasses were domesticated and bring her own wild grasses into systematic cultivation; and this Africa did, although, as in Asia, it took time. The indigenous inhabitants of Africa domesticated not fewer than eight cereals and four root-crops (Shaw 1976; Purseglove 1976 pp. 302-3; Harlan et al. 1976). This did not happen in a single 'centre of agricultural origins' but in a wide zone across Africa south of the Sahara. (Plate IX) The magnitude of the 'movement' involved here is often not appreciated, but it is fundamental to an understanding of the African past. It is a story which has been increasingly revealed over the last twenty-five years as a result of the cooperation of archaeologists, botanists and plant geneticists, and ecologically-minded geographers.

The importance of the shift to agriculture is something which was not formerly realised. Cultivation was something taken for granted among the negroid peoples of Africa, and there is an amusing twist to the now exploded 'Hamitic Hypothesis' in relation to this. For in a classical statement of that myth, fifty years ago, the cultivation of the soil is seen as a lower way of life than pastoralism - an attitude imbibed by anthropologists and colonial administrators from the pastoralists themselves. Seligman (1930, pp. 100-1) stated the theory as follows: '....the incoming Hamites were pastoral "Europeans"' (caucasoids) '-arriving wave after wave - better armed as well as quicker-witted than the dark agricultural
Negros...' and again '... this process was repeated with minor modifications over a long period of time, the pastoralists always asserting their superiority over the agriculturalists.' (This was the doctrine on which I was brought up as an undergraduate.)

Over the last thirty years the Hamitic hypothesis has been well and truly exploded (Greenberg 1949; Drake 1959; Armstrong 1964; pp. 3-7), but although dead for archaeologists and anthropologists, it has been slower to lie down for some historians (Horton 1976, p. 104n). One of the questions which has most vexed historians of West Africa has been to account for the origins of states, and in one form or another the Hamitic hypothesis has often been invoked, particularly in connection with concepts of the 'divine king.' More careful anthropological analysis has shown that the institutions lumped together under the name of divine kingship of a number of different kinds, and that it is inappropriate to regard them as identical and to find antecedents for them in Egypt. Furthermore, an analysis of settlement types and forms of authority in segmentary or stateless societies has indicated how systems of more centralised authority could emerge as an indigenous process of development (Horton 1976). In this process, agriculture, exchange, trade and religion are intimately related as operative factors. We saw this in the case of Great Zimbabwe. Another example can be given in the case of Ife, still regarded as the 'spiritual home' of the Yorubas. (Plate X) A typical model which has been put forward for the origin of Yoruba towns is that which sees them as founded by immigrant rulers and arising 'largely as a form of "colonial settlement" among indigenous, more backward and perhaps more hostile peoples. They were a conscious attempt to dominate and control the unorganised mass of aborigines found in the region ... Yoruba towns were ... basically administrative centers' (Mabogunje 1968, pp.76, 78). I suggest that it is not necessary to invoke such a degree of external intervention, and that a more likely model
is as follows (Shaw 1980).

We can start from an assumption that in both the savanna and the forest areas of western Nigeria by the year AD 1000 agricultural communities using an iron technology had been widely established for centuries. All settled agricultural populations in pre-scientific times feel that in the face of the vagaries of the seasons and the uncertainty of the harvests they must do something to ensure the fertility of the land and the success of their crops; since the real causes of these are not understood or are beyond control, they are believed to depend upon the goodwill of supernatural powers. But not everyone knows how to handle these obscure forces or dares to attempt to influence their terrible might, so the farmers are happy to delegate this function to priestly specialists who will, for a consideration, take it on. There is also commonly a population build-up in such agricultural communities, although it is often difficult to know whether it was innovative farming practice which initially led to a population increase, or whether the new methods were themselves a response to population pressure (Boserup 1972). In either case it leads to a feed-back system resulting in more efficient exploitation of the various ecozones of the territory. An internal system of exchange naturally ensues, whereby each zone specializes in the products most suited to it and exports them to the others (Adams 1966, p. 52). Now put these two things together - the need for a specialist in supernatural farm management to ensure the fertility of your crops, and the need for arrangements to redistribute the products of different ecozones - and you are well on the way to a ceremonial centre, such as Ife clearly became. Where you have internal exchange systems developing, the ritual specialists will tend more and more to become located at the nodes of such systems, and they will draw off to themselves a proportion of the natural wealth that is passing through the system. Look at the map of the territory surrounding Ife
(Plate XI). It lies at the centre of a northward bulge of the tropical forest, but within easy reach of savanna, riverine and coastal environments; such a location at the heart of ecological diversity lends itself to development as the centre of an exchange system and the growth of ceremonial centre (Wheatley 1970; 1971, pp. 238-240). I am not preaching a doctrine of unalloyed economic determinism for the site of Ife, but I am pointing to factors conducive to autochthonous development that may make it unnecessary to invoke the kind of external intervention that Mabogunje postulates.

In the case of Ife, the presence of gold may have been an additional factor (Garrard 1982, p. 460), and the needs of defence may also have fostered centralisation, encouraging a shift from a kinship to a territorial basis of organisation. By the end of the first millennium AD it seems that Yorubaland was dotted with villages nucleated for defence, probably against slave-raiding from the north (Austen 1979). Because people of different lineages were living close together the claims of a neighbor began to rival, and then outstrip, those of a kinsman. The demands of kinship tended to threaten the solidarity of the village in its needs of defence, and the disruptive effect of these obligations were siphoned off by giving certain lineages specified functions in the life of the community, such as providing the chief, the war leader, this historian, the spokesman and the priest. In this way leadership tended to develop into permanent authority. Permanent authority in its turn, when developed on any large scale, itself requires assistants and an administrative staff to help carry out its functions (Horton 1976).

A system of exchange in which, for example, shea butter from the northern savannas was traded into the forest in exchange for kola, is likely to be older than any long-distance trade. When the commercial appetites of the Islamic world crossed the Sahara and began fingerering down into the lands to the south for the products desired, such as kola, ivory
and slaves (Texeira da Mota 1978, p. 2; Austen 1979), the satisfaction of these long-distance demands would have been able to make use of the more restricted, already-existing, local exchange network. Being at the centre of one such system, Ife was well positioned to take advantage of it. The injection of additional resources from long-distance trade into the existing system greatly enhances the power, prestige and riches of the dignitary controlling it. The situation of the Tsoede bronzes at the Niger crossing is suggestive. (See Plate XI and Shaw 1973). Thus happily situated, Ife developed as a centre of wealth, influence and importance in which religious authority and artistic creativity flourished. Potsherd pavements characterised this period and more than two dozen radiocarbon dates place it in the time span between the twelfth and fifteenth centuries. However at the end of this period, there arose in the savanna to the north what became the rival power of Oyo Ile, traditionally an offshoot of Ife itself. Oyo Ile was a more military kind of kingdom, with a power base in cavalry, which was of more use in the savanna than in the forest and easier to maintain in its less tsetse-infested environment. Oyo Ile used this power to intercept Ife's long-distance trade at the point of its contact with the Niger, and Ife became cut off from the main source of her wealth. When a new source of trade and riches appeared, no longer in the north but in the south, as European voyagers began to exploit coastal contacts for their own, transatlantic slave-trade, greater wealth and prosperity became available for the African peoples near the coast, who were the middlemen in this trade. In this new situation Ife was again badly placed. Whereas the empire of Oyo Ile was able to make contact with the coast at Badagry through savanna country all the way, the routes directly southwards from Ife ran through the forest and were blocked by the new power of Ijebu, which had now arisen as the state controlling trade to that part
of the coast; further east the power of Benin did the same. Thus, commercially, Ife was hemmed in and lost all her former glories, merely retaining her religious importance.

There has long been interest in the kingdoms of the western Sudan - ancient Ghana, Mali and Songhai - and it was always said that these empires and their towns sprang into being under the stimulus of trade with the Islamic world. These Sudanic towns were also invoked as being the example and 'influence' responsible for urbanisation further south, eg in Yorubaland. One of the most important of these towns in the western Sudan was Jenne, in the Republic of Mali, the metropolis of the fertile region of rivers, lakes and swamps upstream from Timbuktu. It was the home of mediaeval Islamic scholars, and is famous for its magnificent mosque. It was the wealthy entrepot where gold from the south was exchanged for salt from Teghaza; and much of its trade flowed on to Timbuktu further down the Niger (Bovill 1968, p. 135). By tradition Jenne is said to have been founded in the thirteenth century, built close to the site of an earlier settlement. In recent years this earlier settlement, known as Jenne-Jeno, which means 'Old Jenne,' has been located and investigated by a brilliant American husband-and-wife team. It consists of a large occupation mound, or tell, some 30 hectares in extent. The McIntosh's excavations have demonstrated a continuity of occupation, divided into four phases by slight changes in the pottery, from 200 BC to 1300 AD, when the community moved to the modern site of Jenne 3 km away. The reasons for this move are not yet clear, but it is probably not without significance that the smaller occupation mounds scattered over Jenne's fertile hinterland were also abandoned at the same time. From the earliest phase Jenne-Jeno drew its subsistence from the resources of its rich environments; these included African rice, one of the wild cereal grasses referred to above as domesticated in Africa; in addition Jenne imported from outside things not locally available, such as
iron-ore. By AD 100 the settlement extended at least 400 metres along one axis, and soon after covered an area of some 10 hectares. Phase IV, from AD 350 to AD 900 was of an increasingly urban nature: by AD 800 it was surrounded by a massive mud-brick wall 2 km long (Plate XII), and the town had a dense and diversified population. In this Phase IV new elements of North African and European origin appear, and the town reached its apogee in the tenth century. By AD 1100 Jenne-Jeno was in decline - just around the time when contact with the Arab world was supposed to be stimulating Jenne into existence. Thus, although we need the process of urbanisation in the Middle Niger Delta to be further clarified (Sutton 1982), it is clear from this work it 'can no longer be assumed that urbanism in sub-Saharan Africa was uniquely a by-product of long-distance trade established subsequent to Arab contact' (McIntosh and McIntosh 1980; 1981; 1982); nor do we everywhere have to see processes of urbanization taking exactly the same course (Hull 1976; Andah 1976).

After all these revelations of the vigour and originality of Africa's past, it seems strange to return to another of those statements denying that possibility. Some fifty-odd years ago, a supposed authority on Africa's history declared that until the middle of the nineteenth century 'the main body of the Africans, the Negro peoples who remained in their tropical homeland between the Sahara and the Limpopo, had had ... no history. They had stayed, for untold centuries, sunk in barbarism. Such, it might almost seem, had been Nature's decree ... The heart of Africa was scarcely beating.' (Coul-land 1978, p. 3). If it were not sad to see such a blinkered vision revealed, such a verdict would be laughable, when we have just seen the heart of Africa beating so strongly in the Nok terracottas and iron-smelting furnaces, in the bronzes of Igbo-Ukwu, in the walls of Great Zimbabwe, in the 'movement' and historical processes which created the great ceremonial and artistic centre of Ife, and in the early courses to indigenous urbanisation in the Middle Niger Valley. But the
contrast serves also to make the point that in 1928 Sir Reginald Coupland could plead ignorance; all the discoveries I have referred to have been made since then. What is not pardonable is for anyone calling himself an historian today to be so racially biassed and politically motivated as wilfully to disregard these discoveries to the point of declaring categorically, in 1981, 'change in Africa comes from outside'; yet that is what is published with approval in Cape Town and Johannesburg, the author adding for good measure, and thereby revealing his prejudice, 'Negro Africa is and was inhabited by one of the most recalcitrant people in the world' (Hromnik 1981, p. 20).

In fact the prospects of further discoveries and greater enlightenment on Africa's past are bright, and increasingly they are going to come from the work of indigenous African scholars. The Panafriican Congress on Prehistory was established in 1947 by Europeans interested in the past of Africa and it was a long time before there was much African participation. At the Seventh Congress held in Addis Ababa in 1971, only 7% of the papers presented were by indigenous Africans. In Nairobi in 1977 at the Eighth Congress the figure was 9%. That Nairobi Congress therefore went to great lengths to revise the constitution in an attempt to give the Congress a stronger institutional basis and a more genuinely African character. Unfortunately the arrangements made to set up a permanent secretariat did not work. Nevertheless, the Ninth Congress held in Jos, Nigeria, at the end of 1983, did mark a turning point: 50% of the papers were given by indigenous Africans. This was the result, not of a tinkering with the constitution, but of the work done by African Universities over the last ten years.

We have come together here to pay honour to the memory of Hans Wolff. Hans Wolff was a distinguished linguist who contributed greatly to the study of the subject in Africa, but who was tragically cut off before he could do all he might have done. Now linguistics is a field of enormous actual
and potential value in the study of Africa's past. It is obvious that a great deal of history is secretly embedded in the languages of Africa; this has been clear ever since the Bantu group of languages was recognised as such. Unfortunately this kind of history is written in code, or in a set of codes, and they are codes which are extremely hard to crack. Many of the best minds among linguists have set themselves to this particular sort of cryptography; considerable progress has been made (Ehret and Posnansky 1982), but there is still a long way to go. Historical linguistics has a lot to offer to archaeology, ethnography and history, just as these disciplines have a lot to offer to linguistics. But who is to make the synthesis in constructing (Taylor 1948, p. 38) the African past? 'Oh, interdisciplinary research,' I can hear someone murmur. This is obviously right, but interdisciplinary research is far more difficult than it sounds — partly because exponents of one discipline who want to make use of the results of another always tend to oversimplify the findings of the discipline from which they are borrowing. There are two particular difficulties — one technical, the other personal and emotional.

The first difficulty is that it is so easy to forget that different disciplines — such as those of archaeology, history (which includes oral history and art history), linguistics and ethnography — use different kinds of data, different methods of collecting them, follow different rules in interpreting them, ask different questions and get different kinds of answers. In other words, these different disciplines are handling different "dimensions." Now we know that in handling scientific equations it is important to be clear what dimensions we are using and to get them balanced on each side of the equation; otherwise we go wrong. In our desire to solve some difficult equations about the African past, have we been so keen to find solutions that we have fudged the balance of the dimensions, and seen equivalents
when they are not really there? I believe we may have.

An example is the statement (Posnansky 1981): 'It is anticipated that linguistics will play a greater role in archaeological research and historical synthesis'. In historical synthesis - yes; in archaeological research - no. How can it? The data of linguistics are words and their relationships; the data of archaeology are material objects and their relationships. To try to use linguistics in archaeological research as such is mixing dimensions. Historical linguistics can be used to generate hypotheses about the behaviour in the past of those who spoke in a certain way - remembering the 'jump' (i.e. the hypothetical extrapolation) that is involved from the observed language behaviour of today to the supposed language behaviour of the past; with yet another jump from this to supposed non-language behaviour in the past (e.g. migration). Archaeology can use the interpretations of linguistic data put forward by linguists in terms of past human behaviour if they remember how these interpretations are arrived at, and if they translate such hypothesized past behaviour into patterns of archaeological data which alone can be tested by archaeological methods. But this is rather different from "using linguistics in archaeological research."

The second difficulty I will let Arthur Koestler deal with, because he puts it so amusingly, and because it is perhaps good for us academics sometimes to see ourselves as others see us. In speaking of academics, he says: (Koestler 1979, p. 112):

When you read their stuff or get them alone in a relaxed mood, you realise their qualities -- but the moment you put them together in a conference room, they behave like schoolboys performing a solemn play. They are worse than politicians, because politicians are ham actors by natural disposition, whereas most academics seem to suffer from arrested emotional development. Politicians take their pride in making impassioned speeches and indulging in rhetorical flights; scientists pose as dispassionate servants of Truth, free from all emotional bias, while ambition and jealousy steadily gnaw away their entrails. And what is their Truth, what is Truth? It seems to me that each of them possesses a small fragment of the Truth.
which he believes to be the Whole Truth, which he carries around in his pocket like a tarnished bubble-gum and blows up on solemn occasions to prove that it contains the ultimate mystery of the universe. Discussion? Inter-disciplinary dialogue? There is no such thing except on the printed programme. When the dialogue is supposed to start, each gets his own bubble-gum out and blows it into the others' faces. Then they repair, satisfied, to the cocktail room.

Obviously it is necessary at some point to combine together the findings of all the disciplines which bear upon the African past, e.g. linguistics and archaeology. But it is important to be clear what this point is: I believe that in our eagerness we may have sometimes hurried to it prematurely. Perhaps we need to train a new kind of academic super-sleuth, one who has a full training, and a full field experience, both in linguistics and archaeology - instead of linguists who have read some archaeology and archaeologists who have read some linguistics. But who will undertake this and who will pay for it? The other way it might be achieved would be by setting up a research unit in one institution of three or four experts in their own individual fields who would work together on interlocking problems for periods of, say, three or four years. I have been extremely interested to learn that here at Indiana University, the Institute for Advanced Studies is unique among such Institutes in having been set up to work on just such a principle. I look forward to the day when the Institute can sponsor this kind of interlocking multi-disciplinary project to carry out research into some particular aspect of the African past. Meantime, we have to resist the temptation to build grand inter-disciplinary theories on scraps of evidence (De Maret 1980, p. 726), and always remember the dangers of equating artifactual groups and language groups without independent evidence. If we can observe these rules and exercise this self-discipline our unveiling of Africa's past will be soundly based and not produce theories like the Hamitic hypothesis which will subsequently have to be scrapped. 'Ex Africa semper aliquid novi' wrote Pliny - Africa is always coming up with something new.' I am con-
fident that for a long time to come this will remain true of revelations concerning the continent's past, and that the historical 'gaps in Afric maps', nowadays greater than the geographical ones, will progressively be filled.
Plate I.

'So geographers in Afric maps
With savage pictures fill their gaps
and o'er uninhabitable downs
Place elephants for want of towns.'

Ortelius map of Africa, 1573.
Plate II. Members of the British Punitive Expedition at Benin in 1897 with some of the works of art they collected and took back to Europe.
Plate III. An example of the brass castings taken from Benin in 1897; head of a Queen Mother. Ht. 14 in.
Plate IV. Brass plaque from Benin. Because numbers of the Benin castings portray Portuguese soldiers in sixteenth century dress, it was erroneously maintained, by some up until World War II, that the Bini learnt the art of brasscasting from the Portuguese. Ht. 18 1/2 in.
Plate V. In spite of the consistent findings of archaeologists from 1931 onwards that Great Zimbabwe was the work of Africans and of mediaeval date, successive Rhodesian governments obstinately persisted in fostering the idea that it was constructed under the direction of white rulers from Arabia, Egypt or Phoenicia. This illustration is a reproduction from an official guide book showing a servile African offering gold to a ghostly white queen.
Plate VI. Terracotta face in the Nok style, from Old Kafanchan. The makers of such terracottas were smelting their own iron from the fifth century B.C. Ht. 7 3/4 in.
Plate VII. Casting in bronze of a pot on its own stand, all enclosed in a ropework pattern. Excavated at Igbo-Ukwu, southeastern Nigeria, and dated to the tenth century AD. Ht. 12 3/4 in.
Plate VIII. During the Iron Age, cattle-keeping groups of people lived on the Zimbabwe Plateau, each group apparently having some kind of headquarters with a set of stone buildings; each community had a stretch of territory for pasturing its cattle on the moister lowlands during the dry season, but on the more tsetse-free plateau during the rains.

After Harlan.

**Plate IX.** Many wild cereals and root crops were domesticated in sub-Saharan Africa. This did not take place in a single 'center of origin' where farming was initiated, but in a wide zone across the northern tropics.
Plate X. Terracotta animal head bearing the same ‘royal’ emblem on its forehead as occurs on two of the human heads from Ife cast in brass. Excavated from ‘mortuary chapel’ of a former Oni (king). Probably fourteenth century. Ht. 5 in.
Plate XI. Map of southern Nigeria, showing Ife’s position in the center of a northward bulge of the forest, the position of Oyo Ile in the savanna to the north, and of Ijebu Ode to the south.
Plate XII. The wall surrounding ancient Jenne (Jenne Jeno). It dates to about AD 800, and is 2km long.
ILLUSTRATIONS

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