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# A History of Iron Technology in Igboland, c.1542 - 1900

by

Onwuka Ndukwe Njoku

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Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

at

Dalhousie University

Halifax, Nova Scotia

June, 1986

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## ABSTRACT

The evidence for pre-nineteenth century iron-working in the Igbo area of Nigeria is incontrovertible but scanty. Archaeological recoveries at Igbo-ukwu reveal metal works of superior craftsmanship dated to the mid-ninth century A.D. Nothing is known about the industry until the nineteenth century -- a millennium later. This study partially fills this lacuna by reconstructing the history of the Igbo iron industry during three and a half centuries of the uncharted millennium. Two major themes -- the close correlation between technology, economics and society, and the economic interdependence of the Igbo and their neighbours -- run through the analysis.

The study challenges the popular assumption that Awka pioneered the iron technology in Igboland. Rather it identifies the Nsukka district as the cradle and traces the spread of the technology from there to the Igbo heartland. It relates the peopling and deforestation of the forest zone to the southward movement of the technology, movement accelerated by the expansion of the Afro-European trade on the coast.

The iron industry was a laborious, lucrative and respected profession, organised on a lineage basis under the guild of elder smiths which controlled entry into the profession. Contrary to the notion of the 'lazy native', Igbo smiths exhibited enterprising spirit, habitually making professional tours to regions far beyond the borders of Igboland. Because of the peripatetic nature of their profession, the smiths combined smithing with other sidelines, and consequently, accumulated substantial wealth. Against the notion that the Igbo lacked social hierarchy, the analysis shows that the smiths employed their wealth to achieve social and political power.

# LIST OF ABBREVIATIONS

| | |
|---|---|
| Igbo Historical Text | IHT |
| Journal of African History | JAH |
| Journal of the Historical Society of Nigeria | JHSN |
| University of Nigeria, Nsukka | UNN |
| West African Journal of Archaeology | WAJA |

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# CHAPTER ONE

# INTRODUCTION

## I. The Geographical Setting

Every economy and the related technology are set within a geographical milieu. Seen from this perspective, economic-technological processes may be described as the products of the interaction between human societies and their environments. Contrary to geographical determinism, the physical environment rarely determines human economic life, but does broadly condition or influence it. The extent of the influence tends to bear an inverse relationship with the level of the technology applied to the economy.

If, as in the case of precolonial Igboland, the technology is not advanced, the environment would have a considerable influence on the economy. An economy enjoying an advanced technology would be less constrained. The influence of the environment on the traditional economy of Igboland was observed by Reverend G.T. Basden early in this century.[1] It is, therefore, germane to begin this study with a sketch of the geography of the area concerned.

Igboland, as presently constituted, covers the stretch of territory lying between longitudes 5° 5'E and

8° 30'E, and latitudes 4° 45'N and 7° 06'N. This territory adds up to 32,540 square kilometres, and carried in 1963, a population of 8,818,208. Put differently, Igboland constitutes about 4.3% of the national land mass of Nigeria, while carrying about 14.9% of the population.[2] Located within the tropics, Igboland, and indeed all of southern Nigeria, experiences two sharply contrasting climatic seasons in a year -- the rainy and the dry seasons. The former begins in May and lasts to September; the latter from October to April. The annual rainfall, concentrated in the rainy season, decreases from about 140 inches in the southern parts to between 80 and 70 inches in the northern parts.

The vegetation pattern follows closely the rainfall map. High tropical forests are said to have been the climax vegetation over all of southeastern Nigeria,[3] the territory in which the bulk of the Igbo territory lies. The densest portion of the primeval vegetation was in the southern part of the region. However, the primeval forest had long yielded place to derived Guinea savanna, that is, savanna which evolved as a result of human activity. This vegetation is characterised by the prevalence of shrubs, fire-resistant trees and tall grasses. It is most visible in the area lying north of an imaginary line extending from Afikpo via the southern fringes of Okigwe, Orlu, Awka

to Onitsha. It is mainly in the Calabar, Ikom, Obubra and the Niger delta districts that high forests may still be found. These areas are also the least populated in the region.

Igboland is cut athwart by the River Niger. The bulk of the land and population is located east of that river, with more than 80% concentrated in Imo and Anambra States. Substantial numbers are also found in the Rivers and Bendel States. In the latter, they constitute the second largest ethnic group next to the Edo. The Igbo have thus as their immediate neighbours the Idoma, the Igala and Tiv to the north; the Edo, Isoko and Urhobo to the west and southwest; the Ijo, Okrika and Kalabari to the south; and the Ibibio, Mbembe and Yako to the east.

Igboland carries one of the heaviest population densities in Africa, rivalling in some districts the fertile valley of the Nile, which itself has among the highest rural densities in the world.[4] Historical geographers suggest that the Igbo population phenomenon predates colonial rule by centuries. Carbon-14 dating indicates human occupation of the area by 11,500 B.C.[5] Potsherds excavated at Nsukka bear the date 2555 ±130 B.C. and are said to resemble morphologically unfired pottery produced in the area in modern times.[6] If so, this suggests a considerable ethnographic continuity. Oral

traditions make no mention of major invasions, a phenomenon so common in the histories of other peoples.

The highest population concentrations are in the Awka, Okigwe, Orlu, Owerri and Onitsha districts, where the average is above 1000 per square kilometre.[7] Some scholars have attributed the high density to the absence of large scale wars; some to an efficient agricultural system, and others to immigrant populations from the neighbouring areas.[8] It is significant that Awka and Okigwe were iron working centres while Orbu, Onitsha and Owerri were contiguous districts.

The territory stretching from the Benue River to the Bight of Biafra lies below 600 feet above sea level.[9] Mountains divide, rivers unite, it is said. The absence of mountain barriers coupled with the presence of navigable rivers facilitated human traffic throughout the region. The principal rivers -- the Niger on the western area of Igboland and the Cross River on its eastern boundary -- were navigable with traditional craft, the dug out canoe, throughout the year. Other rivers which promoted human movement and interaction included the Anambra, Imo, Kwa Ibo and Orashi.

Even the Niger delta, an environment made difficult by its swampy, saline soil and mangrove forest, was compensated with myriads of creeks which provided for an

amazing network of marine transportation. The canoe was the primary mode of transportation and a source of economic and political power.[10] However, the bulk of the hinterland population was not reached by the waterways. In that area, transportation was entirely by human porterage, thanks to the prevalence of trypanosomiasis which precluded the use of beasts of burden.

The hinterland was criss-crossed by a maze of routes linking communities and markets. Some of the routes were highly commended by early foreign travellers. Major Arthur G. Leonard, the first European to reach the Igbo heartland, in 1896 described the road leading to the commercial emporium of Bende as "a broad, well kept, beautiful avenue of trees",[11] and another from Abruki to Umuokpara as "more like an avenue in England ... than a wild road in Africa".[12]

Variations in geography, natural resource bases and human productive skills combined to produce occupational specializations and a high level of complementary commercial exchange between zones. The Niger delta environment gave very little or no scope for agriculture but fish and salt were produced there in exportable quantities. The hinterland produced agricultural and craft products, but salt was scarce while fish was a rarity in some places, Olaudah Equiano indicated. It was

only logical that the delta traded its products to the hinterland in return for agricultural and craft products.[13]

The earliest European explorers who visited the delta in the early sixteenth century, such as Duarte Pacheco Pereira, c.1505 - 1508, reported on the delta-hinterland trade. The canoes employed in the trade were described as "the largest in the Ethiopia of Guinea", some of them large enough to accommodate eighty people.[14] Later European traders in the delta indicated that this trade expanded with the passage of time. The Europeans introduced a new range of crops to supplement the existing stock, the most important of these being cassava (manioc), coconut, oranges and, though this has been controversial, maize.

Although agriculture was the predominant occupation of the hinterland, there were a few communities noted for non-agricultural occupations. These included metal-working in Abiriba, Awka, Nkwere, Nsukka and Udi. The Aro were oracle agents and inveterate traders; the Nri people were ritual specialists. The women of Afikpo, Inyi, Isiaqu, Ohuhu and Uturu specialised in pottery while their Oshiri counterparts were known for mat and basket making. Salt was produced in the two closely located towns of Okposi and Uburu, also by women. These were the only

salt producing centres in Igboland.

Lead and zinc were mined at Enyigba in Abakaliki, probably before European advent in the delta. It has been suggested that these minerals may have been supplied to the craftsmen who worked in the Igbo-Ukwu area.[15] Cotton cloths were produced by Akwete, Nsukka, and Okigwe women. Some of these specialisations have continued to date. The Akwete textile industry, for instance, has attained international recognition, and its products have won a place in major world museums, such as the Museum of Mankind in London.[16]

## II. The Poverty of Igbo Historiography

Igbo history has been unattractive to researchers and consequently remains grossly underdeveloped. This is particularly evident when compared with the histories of the other Nigerian groups of comparable size and importance, such as the Hausa and the Yoruba. Yet reasons abound why Igbo history should have been accorded more attention than has so far been the case.

As far as the extant evidence goes, the Igbo have never failed, as it were, to hit the headlines in the major epochs of African history. The bronze artifacts recovered at Igbo-ukwu and dated to the ninth century A.D. are the oldest in Nigeria, and have been described, for their aesthetic excellence, as belonging in a class of

their own.[17] As indicated earlier, Igboland has carried one of the highest rural population densities in Africa, in fact, the highest in Africa south of the Sahara.

The Igbo featured prominently in the Atlantic slave trade, as collaborators with the Delta and Efik middlemen, and as its victims. They were also in the forefront in effecting the change from the trade in slaves to agricultural production. The Abiriba, Awka, Nkwere, Nsukka and Udi metal workers exercised considerable technological dominance not only over Igboland but also in substantial portions of the Edo, Efik-Ibibio, Idoma, Igala, Yoruba, and Bamenda districts. In the Aro, we find a relatively small community, which, by c.1750, had built up an extensive 'commercial empire', which sprawled over the entire southeastern Nigerian region, even spilling across the Niger to the western districts. In spite of these factors which appear to have favoured the emergence of centralised state systems, the Igbo remained largely a noncentralised society, in the conventional sense. This is a phenomenon which continues to interest students of social and political history alike.[18]

In more recent times, the Igbo have rarely been out of the news. Their women, independent of their menfolk, staged the anti-British colonial protests of 1929, which forced the administration to reexamine its policy in

Nigeria.[19] The women's protests (the colonial government called them riots) remain the first of their kind in British colonial experience; perhaps in modern colonial experience in the world. The Igbo were also in the forefront of the nationalist struggle which brought independence to Nigeria in 1960.

Colonial rule had widened the economic horizon of the Igbo, as of other Nigerians. The Igbo fanned out subsequently from their homeland to other regions of Nigeria, a situation which helped to make them, perhaps, the staunchest advocates of Nigerian unity. Considered by foreign observers as "possibly the most virile and industrious of all Nigerians",[20] they rapidly advanced in all areas of endeavour. This bred in their neighbours an odd mixture of admiration and hatred. They became an easy target of organized violence. Not surprisingly, they made a complete turn around from championing the cause of Nigerian unity to spear-heading its aborted dissolution. These curious and inviting flash-points notwithstanding, Igbo history remains a neglected field.

The basic problem has not been a lack of the realization of this neglect. On the contrary, the bankruptcy of Igbo historical studies has been an increasing cause of concern to writers and scholars of various disciplines. In 1910, Basden, a pioneer in the

study of the Igbo society, was amazed at the lack of interest, and ignorance of Igbo youths about their past. "It is sad to relate", he wrote, "yet it is none the less true, that many a modern Ibo youth knows more English history than that of his own country and people".[21]

Three decades later, Sylvia Leith-Ross, then working in Igboland, regretted that "the young are content to have no past as long as they can have a future".[22] In a review of the state of Igbo studies in 1961, Simon Ottenberg lamented the staggering poverty of the subject and suggested promising lines of research.[23] The clarion calls for attention to Igbo history have continued unabated. In 1972, Adiele A. Afigbo, at a workshop on 'The Peoples of South Eastern Nigeria' pointed at "the immensity of our ignorance of the Igbo past".[24] Three years later, he thought it was still appropriate to describe Igbo history as a terra incognita.[25]

In 1982, Donatus I. Nwoga, then Director of the Institute of African Studies, University of Nigeria, Nsukka, lamented at a workshop on 'The State of Igbo Studies', that the Igbo past was still full of "myths and half-truths arising from ignorance".[26] Many other scholars including Elizabeth Isichei, John Oriji and Chieka Ifemesia have each expressed the same concern.[27] It came as no surprise when, at a Congress on Igbo

History, Frederick C. Ogbalu, National Chairman, Society for Promoting the Igbo Language and Culture, declared 1982 "the year of Igbo history". The plan was to initiate a programme of research aimed at demystifying "the mysterious history of the Igbo".[28]

All these laments have not gone completely unanswered, though there have been more words than action. The last decade and a half have seen more research in Igbo history than had been the case since 1900. Some of the research works have been published and are available for public consumption; the majority are not. In the past fifteen years or so, the Institute of African Studies, University of Nigeria, Nsukka, has organised annual workshops and conferences aimed mainly at improving and encouraging Igbo studies. These workshops and conferences have provided forums for scholars to exchange stimulating ideas. However, in spite of the progress which appears to have been made, the situation remains as Isichei summed it up: "The Igbo past is a sea in which anyone can swim, as far as his ability and time permit".[29]

Scanty as the available literature is, it is easy to detect an imbalance in respect of the period of concentration and the areas of interest of researchers. This point will be elaborated shortly. The colonial period has been the most attractive to the historians of

the Igbo people. The primary reason for this seems to be the ease of access to source materials. This has meant the neglect of the precolonial period. The colonial period covers barely half a century in the span of Igbo history and culture. The precolonial spans through many millenia, and it is in this period that the authentic history of the Igbo lies.

A second feature of the historiography is the lion's share given to political history. The struggle for and attainment of independence by African countries in the 1960s tended to make political history fashionable. It was one of the ways of giving identity and legitimacy to the newly independent states. In the Igbo case, this orientation was aided by the Women's Protests of 1929. The few studies which have dealt with the precolonial period have leaned generally in the direction of Afro-European trade and contacts.[30] The exceptions are some of the more recent studies such as those by J.O. Ijoma, John Oriji and Philip Oguagha.[31]

Two principal reasons, both of which were the products of the historiography that prevailed till the mid- 1960s, are usually put forward to account for the neglect of Igbo history. One was the overwhelming reliance on written sources and the rejection of 'oral documents', as a valid source of history. The earlier

generations of the historians of Africa were brought up in that historiography which pinned all its faith upon written sources. As precolonial Igbo society was non-literate and left no written records, research in it was thought to be futile. This explains the fact that all the publications on or relating to the Igbo made before 1956 were the works of anthropologists. It was also for this reason that historical research was concentrated on the much smaller Niger delta and Efik communities than on the much larger Igbo and Ibibio communities.

The second reason derives from the prejudice of the earlier historians against non-centralised or non-monarchical states. The centralised states had monarchies, their courtiers and remembrancers. These provided rich and easily accessible sources of historical reconstruction. These sources were believed to be non-existent in the non-monarchical societies. Where semblances of these were observed, they were thought to be as fragmentary as the societies were seen to be.

> It was thus possible to assert without qualms that
>
> During the nineteenth century there is not much to tell about the Ibo and the Ibibio. They were not integrated into kingdoms seeking conquest. They produced no hierarchy of kings whose lives and careers could provide for dramatic stories.[32]

Not long ago, Robin Horton changed from writing a chapter

entitled "History of Stateless Societies" to one entitled "Stateless Societies in the History of West Africa".[33] According to him, the change was necessitated by the realisation that it was extremely difficult to write the history of a stateless society.

The problems of oral history in non-monarchical societies are certainly complex, and may even be intimidating.[34] The absence of a royal genealogy, for instance, makes the task of working out a chronology of historical epochs very exacting. Another problem is the prevalence of conflicting traditions. However, this should be seen as a source of strength rather than of weakness. True, it takes a great deal of time to collect these traditions; a lot more time and brain to collate and analyse them and resolve the conflicts. Nevertheless, it is only in doing this that the historian can ever hope to come to the truth or close to it.

The problems of oral tradition, especially of collecting and working out coherent family genealogies, might appear intimidating or overwhelming. But they are not impossible, as many researches have shown, for instance, those of Erim Ode Erim on the Idoma and John Orkar on the Tiv.[35] Oriji indicates that he found some aspects of oral tradition among the Ngwa, a non-monarchical group of the Igbo, "as institutionalized as in

many African kingdoms".[36] Custodians of deities and ritual ceremonies in 'stateless' societies retain as much oral history as their counterparts in monarchical societies.

There is an unfortunate tendency for some scholars to equate royal history with the history of society. The history of a royal house cannot be the history of its people, but only a part of it. Often the royal house was far less ancient than the society it ruled. Often, it was of a different ethnicity from the people it ruled, as it is clear in, first, the Benin monarchy and, later, the Bini and Kwararafan in Idah.[37] Nor is history concerned primarily with the 'dramatic stories' of remarkable individuals, though, admittedly, without the actions of such individuals, it would be uncommonly difficult to write the history of social formations.[38]

A part of the current problem in Igbo history is the lack of a general awareness of completed and on-going research. There are a number of unpublished works lying fallow in private book shelves. But there is considerable lack of communication among the interested scholars; or the tendency, as Afigbo aptly puts it, "to ensure that the left hand does not know what the right hand is doing".[39] In this respect, an establishment such as the Institute of African Studies, Nsukka, can play an immense role in

collecting, collating and synthesising information on all research on the Igbo.

But the real problem with Igbo historiography is the failure or unwillingness of the historians to employ the appropriate methodology developed elsewhere to study non-monarchical societies. African historiography can be seen in three phases which correspond broadly with the periods 1956-1966, 1967-1979, and since 1980. The first phase was opened with Kenneth O. Dike's Trade and Politics in the Niger Delta, 1830-1885.[40] Dike's publication was followed by those of many others such as R.E. Bradbury (1957), J.D. Fage (1959), Adu A. Boahen (1964), J.F.A. Ajayi and Espie (1965) and Joseph Anene (1966), among others.[41] These publications have two main features. One is the reliance on alien documentation as a source material, namely, Arabic and European sources. The other is the combination of alien documentation with the royal chronicles of centralized states.

Among the first generation of Nigerian historians after the Second World War, Igbo historians were perhaps more in number than any other ethnic group. In fact, Dike, the pioneer of this generation, was an Igbo. In this regard, relative to the other groups, the Igbo had the man power in quantity and quality. Dike's Trade and Politics is rated as perhaps the most scholarly work by a

Nigerian historian.

However, the Yoruba were ahead of the Igbo in developing amateur historians. Samuel Johnson's The History of the Yorubas[42] set the style, and was followed by almost every Yoruba sub-group producing its own amateur historians. In the Benin area, Joseph Egharevba pioneered the trend, and was followed by others such as Christopher Okojie.[43] These amateurs collected the oral traditions which the professional historians went on to employ. Nigerian professional historians appeared unenthusiastic in collecting oral traditions. Others have had to do it for them. Among the Yoruba, the amateur historians carried out this duty. Igbo amateur historians were late in developing.

As history built on oral sources began, it depended upon European and Arabic documentation combined with the royal chronicles. Both these sources were necessary for chronology and dating purposes. Utilising this system, the histories of Benin, Dahomey, the Yoruba and Hausa states, Nupe and Bornu could and did develop. In 1956, the Yoruba Historical Research Scheme was set up by the government of the then Western Region of Nigeria with S.O. Biobaku as Director. This was followed by the Benin Historical Research Scheme, a brain child of Dike. From these schemes emerged major works on Yoruba and Benin

history.[44]

The Igbo had little foreign documentation and royal chronicles were rare. Neither was any scheme analogous to those of the Yoruba and Bini worked out for the Igbo. Both foreign documentation and royal chronicles were available for the city states of the Niger delta. Interestingly, it was on this area that the pioneer Igbo historians, namely, Dike, Anene and Ifemesia, wrote their Ph.D. researches.[45]

Even where royal genealogies exist such as Aboh, Agbor, Arochukwu, Nri and Onitsha, the historians of the Igbo people are yet to show serious interest in their studies, especially in respect of their chronologies. For instance, in spite of all that has been written about the Aro, their royal genealogy is yet to be worked out.[46] Given the ubiquitous presence and influence of the Aro in southeastern Nigeria in precolonial times, such a genealogy would have served as a beacon in cross-dating many events in various parts of the region. The works of R.N. Henderson and M.A. Onwuejeogwu on Onitsha and Nri, respectively, are the exceptions.[47] Both authors are anthropologists.

Thus the methodological advances which propelled the first generation of Nigerian historians and which took as essential alien documentation and royal chronologies were

really not available to potential historians of the Igbo. For obscure reasons, a class of amateur Igbo historians did not develop and multiply as among the Yoruba, Bini and Urhobo, for example.

The second phase in African historiography came with a methodological break through in East Africa where centralized states and royal chronicles were rare. The seminal publication to mark the new methodology was that of Bethwell A. Ogot on the stateless Luo of Uganda and Kenya.[48] Most East Africans were organised like the Igbo-speaking communities. The original methodology allowed only the writing in East Africa of the history of the Swahili coastal city states and the interlacustrine kingdoms. The first phase therefore catered well to most of Nigeria, the interlacustrine kingdoms, the Swahili coastal states, Shaka Zulu, the Ngoni and such others. The stateless societies were ignored.

With neither documentation nor royal chronicles to work with, Ogot had to employ commoner oral traditions. As he stated, "my friends and mentors ridiculed the decision on the grounds that one cannot study what is non-existent ... They reminded me that there are no documents on this period, and without documents there cannot be any history".[49] Using family and clan genealogies derived from oral traditions in place of alien documentation and

royal chronicles, Ogot proved the sceptics wrong.

After Ogot, the methodology of oral history has continued to be refined with very fruitful results. David W. Cohen, through totemic group identification reduced a mass of clans to manageable proportions.[50] Erim also used family, lineage and clan totems to unravel the multi-ethnic origins of the groups which constitute the Idoma nationality of today. Through a careful analysis of several genealogies he was able to establish when and how the Idoma nationality came into being.

In the new methodology, family, lineage and clan genealogies replace kinglists. This has meant more intensive field work collection of oral traditions. Instead of one royal chronicle, hundreds of family, lineage or clan traditions must be collected. Consequently, instead of dating by one regnal list, a collection of hundreds of family, lineage and clan genealogies are used.

Nigerian universities ignored this phase. Nigerian historians do not appear to have read Ogot or Cohen; if they did, presumably they understood the methodology of neither of them. Phase one satisfied the centralised kingdoms and the coastal communities in Nigeria. Only the Igbo and the Middle Belt had not been served by it. Erim and Orkar have set the style for the Middle Belt. The

Igbo historians have failed to grasp the significance of the new phase. The crux of the problem with Igbo historiography, therefore, is less of neglect but mostly of improper handling.

In the third phase, there is a turning away from political to social and economic history. As the euphoria of political independence simmered down, more penetrating questions about precolonial African societies began to be posed. It became clear that political themes provided insufficient insight into the life, especially the economic life of the people -- the thing that mattered most to most people in the past as in our own day.

Economic and social history is more difficult to write than political history. This is particularly so if the political history has not already been done. Here again, Igbo historiography faces enormous difficulties. Much has been written about the traditional Igbo political organisation, but not about the political history.[51] Most of what has been done is anthropological in so far as the political system is portrayed as static.

## III. Aim and Scope of This Study

Economic history has not been given its due attention in Igbo history. Studies which deal with economic affairs have concentrated on trade, especially Eurocentric trade.[52] Those which have dealt with domestic trade have

concentrated on the Aro system. Production, when mentioned, is usually treated as a footnote, as if trade was not predicated on production. Agriculture has been described as the "Igbo staff of life".[53] Yet there has been no research on its origin and development, a position which has drawn the criticism of the present writer elsewhere.[54]

As for manufacturing, its scandalous neglect betrays the notion that it either played an insignificant role in the traditional economy or that it was too simple and rudimentary to deserve attention. "Among the Igbo/Ibibio", writes Nina Mba, "craft occupations were less developed or organised than in Benin and Yorubaland".[55] This assertion is at variance with our evidence, as will become clear from the discussion in the subsequent chapters. There is also the impression that the study of indigenous technology is not relevant to the industrialisation programme in Nigeria today.

These notions are unfounded. In the first place, the case of iron technology indicates that manufacturing played a vital role in the traditional Igbo economy and society in general. Secondly, it is yet to be demonstrated that the traditional technology is an anachronism in present day Nigeria. Rather, the evidence would suggest that the traditional iron technology

continues to play an important role in Nigeria today.[56]

Indigenous science and technology is a product of millennia of intimate dialogue between the people and their environment. It kept the society functional and continues to do so, especially in the rural areas where the vast majority of the population reside. Indigenous manufacturing has demonstrated in some areas incredible resilience and a capacity to adapt to changing demands. A striking example is the role of traditional smiths in the repair and production of guns of varying complexity for Biafran soldiers during the 1967-1970 civil war.[57]

Western science and technology has had such a devastating impact on the Nigerian society that many people easily deny the existence of indigenous science and technology. As Toyin Falola observes, when such a denial is not overtly made, indigenous science and technology is treated as magic.[58] However, Edgar Wallace, from a long experience in Africa, cautioned that "there are many things which happen in the heart of Africa which no man can explain; that is why those who know Africa best hesitate to write stories about it".[59] As the saying goes, one culture's science is another's magic.

As for the long, drawn-out debate about appropriate technology for developing countries, it has been argued that any traditional technology that has survived the

Western technological deluge must be, in context, appropriate.[60] It seems a truism borne out of experience that any imported technology that is not integrated into the indigenous fund of skills and knowledge may not develop enduring roots. The failures of so many 'modernisation' programmes in Africa which derived their inspiration and know-how from abroad are attributable to the tendency to treat the receiving society as a tabula rasa.[61] As Basil Davidson has written, "the real problem of the African today, seen from one perspective, is to know how to remain true to his historical development...to know how to keep the best of his past while combining these with modern systems of organisation and production."[62]

The study of indigenous technology raises the crucial questions about the traditional means of acquiring and transferring skills from generation to generation, and the build up of indigenous entrepreneurship in contemporary times. It may not be sheer coincidence that in Igboland, the major manufacturing and trading communities in precolonial times are among the most successful in business and the professions today.

Of the traditional Igbo manufactures, the iron industry deserves a special consideration. As we shall see, the work ethic of how a smith should behave has an

important lesson for Nigeria today, where the quick fix or grab mentality of developed capitalism has taken over. The high population density of Igboland was made possible by an efficient agricultural system which relied on the products of the forge. These continue to be the tools of the rural farmers in Nigeria. Archaeologists and precolonial historians agree that the full import of the neolithic revolution was manifested only with the advent of iron technology.

It is no exaggeration to suggest that the iron industry laid the foundation of the Igbo society and economy. But when and how the process started and developed through time and space remains to be explored and explained. It seems rational to suggest that the process was probably very complex and had far-reaching economic, social and cultural ramifications. There are grounds to argue, for instance, that some Igbo cultural practices relating to the agricultural system, land tenure and title system have an indirect bearing at least, on the iron industry.

From the sixteenth century, the Igbo iron tradition came in contact with that of Europe. The Europeans brought in such metal goods as iron bars, copper rods, manillas, door hinges and staples, animal traps and guns. How the smiths responded to the situation should be

instructive to the present day planners in Nigeria. They incorporated some of the new items into their own repertory of products, through experimentation. They were selective, and their selectivity was dictated principally by the absorptive capacity of their technical skill or knowhow.[63] Gun repair, 'conversion' and production by indigenous smiths provides a stimulating instance of how factory based production can be transferred to the handicraft method.

The study of the traditional iron technology in Igboland has been left primarily to archaeologists. But archaeologists tend to be preoccupied with material culture and technology of production, and give only scant attention to the social and cultural contexts of the process. Two Ph.D. dissertations, one by Nancy C. Neaher, an art historian, and the other by Azuka A. Dike, an anthropologist, may be cited as partial exceptions.[64] Neaher was concerned basically with the artistic qualities of the southern Nigerian bronze traditions and their ancestral relationships. She also examined the contribution of Awka smiths in the distribution of the bronzes of southern Nigeria.

Dike's work, now published, deals with the traditional social and economic organisation of Awka as well as the resilience of the people's culture. An Awka

indigene, he brought a wealth of native insight to elucidate his analysis. He has a brief chapter on the metal and other crafts such as carving. He shows clearly that these crafts were highly developed before the colonial advent.

The concentration of the two researchers on Awka as an iron-working centre to the neglect of other centres in Igboland may not be fortuitous. This conforms to the prevailing bias in the general literature in favour of Awka as far as the metal industry of Igboland is concerned. As it is argued in this thesis, this general bias has tended to distort the correct understanding of the historical development of the industry. Like other studies of the precolonial Igbo society, these theses do not put their analyses within a chronological time frame.

The present study derives its inspiration from the poverty of Igbo history and the imbalance evident in the way the existing studies have been spread. It is intended to contribute in filling up some of the gaps in our knowledge of the Igbo past. From this perspective, this study is a response to the clarion call for more attention to Igbo history. As a work on traditional technology, it examines the methods by which skills were acquired, developed and transmitted from one generation to another.

As a study of the precolonial economy of the Igbo, it

explores the relationship between technology, economy and society. The analysis presented is not just about the technology of material production but also about its social and cultural ingredients. It demonstrates how culture served as a stimulant to technological adaptation within an ecological regime and how religion, politics and societal perceptions interacted with technology.

The study covers about three and a half centuries of the iron tradition of the Igbo people, c.1542-1900. The commencement date does not signify the genesis of the technology in Igboland. Rather, it is the terminus post quem from which a coherent picture can be built up from the data collected in the field. Before then, the oral information is too weak and elusive to be used for formulating a meaningful chronology. Because of its gross underdevelopment, archaeological dating cannot be used to extend the time scale chronologically.

The extant evidence for iron technology in the Igbo area creates a tunnel scenario. We have two bright ends separated by a dark stretch of about a thousand years. The Igbo-ukwu archaeological recoveries present a tantalizing flash into the genius of the metal technologists in the area in the ninth century. In the nineteeth century, reports of foreign visitors provide a swelling source of information about the industry.

Between the ninth century Igbo-ukwu and the nineteenth century lies 'the silent millenium'. This work hopes to shed some light into three and a half centuries of this millennium. It is expected that as more archaeological excavations are made and dated, and family, lineage and clan genealogies are given the attention they deserve by researchers of Igbo history, the frontiers of our knowledge will continue to expand.

Chapter Two of the thesis is divided into two broad sections. The first section discusses the problem, first, of the origin of iron technology in West Africa, and second, in Igboland. It is suggested that the Nsukka area was probably the cradle of iron technology in the Igbo culture area and that this technology appears to have diffused from the region to the north. The second section discusses the diffusion of the technology from the Nsukka district to other parts of Igboland. The Udi area is suggested as a crucial take-off point in the penetration of the technology to the Igbo heartland. As against the popular opinion and imagination, Udi was the ancestral origin of the iron tradition of the Awka people.

Chapter Three deals with a descriptive analysis of the Igbo traditional techniques of smelting and smithing. Attempts are made at quantitative estimates of the productivity of the iron workers in the nineteenth

century, including the number of trees that may have been lost through smelting in some of the important centres. The chapter also discusses the organisation of the smith's workshop, the apprenticeship training, the smith's work ethic, and the taboos pertaining to the industry. It may well be appropriate to stress here that the quantitative estimates which have been derived from oral data must be seen for what they are -- informed estimates, not precise computations.

Chapter Four deals with the phenomenon of itineration, one of the most distinct features of the smithing industry. It identifies the general character and rationale of this phenomenon, and traces the spatial expansion of the smiths' work orbit from their different locales in Igboland to many areas beyond. The journeys extended to the delta in the south, the Niger-Benue confluence in the north, Yorubaland in the west and the Bamenda district in the Cameroons to the east.

Chapter Five concludes the study. It examines the role of the smiths as agents of economic, social and political change in Igboland before colonial rule introduced a new economic and political regime which marginalized the smithing industry. It is concluded that present day Nigerian industrialists and workers in general have a lot to learn from the work ethos of the precolonial

iron workers.

IV. Source Materials

The materials for this work come from three sources, namely, archaeology, written documents and oral traditions. The potential of archaeology as a source for the reconstruction of Igbo history appears enormous. However, the archaeology of Igboland is at present still in its infancy. Its development seems to be retarded by a shortage of field personnel, finance and work tools.[65] An impressive number of iron sites have been identified, but only a couple have been excavated and much fewer, carbon-dated. The dated sites include Nwankwor Midden near Bende, Igbo-ukwu, Ifeka Garden in Ezira and Umundu in Nsukka.

Igbo-ukwu has yielded by far the most impressive metal artifacts in southeastern Nigeria. Unfortunately, Igbo-ukwu stands a long distance away from both Ezira and Umundu, by about six and nine centuries, respectively. More archaeological digs are necessary to fill in the gaps. As Donald D. Hartle observed, "the establishment of dates in Nigeria represents the most important stumbling block to the understanding of the archaeological horizon".[66] The paucity of archaeological dates in the Igbo area greatly reduced the utility of this source in our dating scheme and reconstruction.

The written documents consulted were of two categories, the primary and the secondary. The former includes first hand reports by foreign visitors to the coast of southeastern Nigeria or Igboland itself. It also includes published and unpublished reports by colonial officials and researchers in the twentieth century. Until the nineteenth century, no foreign travellers had gone beyond the coastal peripheries of the Niger delta and Old Calabar into the hinterland. But their reports about life in the coastal communities shed useful light on the commercial relationship between the hinterland and the coast.

The earliest first hand account of life in Igboland is Olaudah Equiano's autobiography, The Interesting Narrative of the Life of Olaudah Equiano, (1789).[67] Equiano was an Igbo born around 1745. He was captured and sold into slavery by slave raiders at the age of twelve years. The Narrative provides interesting insights into the social, economic and political conditions in Igboland in the eighteenth century.[68] From the 1830s or so, foreign explorers and Christian missionaries began to make sustained inroads into the hinterland, using the Niger and the Cross Rivers as the main highways. Direct reports about the Igbo people began to trickle out and increased in the course of time.

At the dawn of the twentieth century, colonial rule was imposed and Igboland opened to the Western world. The trickles of the previous centuries became a flood. One of the fortuitous outcomes of the Women's Protests of 1929 was that the colonial administration suddenly realized how little it knew the Igbo people whom it had forced into its empire. The administration set about inquiring into the traditional history and organisation of various Igbo communities. The results of the exercise were compiled in the form of Intelligence Reports. Although these reports are of uneven quality and need to be handled with circumspection, some of them open up useful windows into pre-British Igbo society.

However, with specific reference to craft production, these and similar reports are of little value. The officers who did the reports focused on the traditional judicial and political organisation and origin traditions of the communities. In some instances, the reports are even misleading. For instance, Northcote W. Thomas, in his anthropological report on the Law and Custom of the Ibo of the Awka Neighbourhood,[60] made no mention of Udi as an iron smithing area. In the same way, Meek's report on the Nsukka people gives no indication of iron working as a traditional industry in the area.[70]

The exception to these is the report of M.D.W.

Jeffreys, "Intelligence Report on Awka"(1932).[71] Jeffreys collected oral traditions of the origin of iron technology in Awka. In his Ph.D. thesis for the University of London, 1934, Jeffreys devoted a chapter on Awka blacksmiths and carvers.[72] His analysis is more or less anthropological, and lacks historical depth. Meek's report on the Nkwere mentions that gun smithing was an important occupation in the past.[73] It says nothing about its origin, development or organisation.

The secondary source materials include published and unpublished works. None of them addresses the main thrust of this thesis, that is the historical development of iron technology in Igboland. Nevertheless, they provide bits of information which have been helpful in the reconstruction made in the subsequent chapters. Reverend G.T. Basden, a Church Missionary Society representative, spent many years in Awka and wrote quite extensively on the Awka culture, including descriptions of Awka skill in the making of guns and ornaments. He paid no attention to the historical development of the technology. Robert A. Sargent's "Politics and Economics in the Benue Basin, c.1300 - 1700"[74], served as a useful source in cross-dating and referencing traditions recorded in the Nsukka area.

Oral traditions by far constitute the predominant

source of evidence for this work. This seems inevitable given the stark inadequacy of the other sources. Time was when historians of Africa using oral traditions in their historical analyses had to make a case for their use. From our discussion so far, it is evident that the validity of this source for historical reconstruction is too well established to be rehearsed here. The multi-disciplinary approach in African historiography coupled with the use of oral data, has not only exposed the limitations of written documents but placed their importance in context.

The oral traditions for this work were collected in two phases. The first phase was 1982-1983. It was essentially exploratory and was intended to test the viability of the research topic. The bulk of the data was collected in the second phase during thirteen months of field work spanning the period from June, 1984 to June, 1985. The places of concentration in the field were Abiriba, Awka, Nkwere, Nsukka and Udi. These were the dominant iron-working centres in precolonial Igboland. Other areas of investigation were Mbano, Ohafia, Umuahia and Uturu-Okigwe.

Both group and individual interviews were employed in the field, though much greater emphasis was placed on the latter. The practice was to obtain the personal data of

every informant in respect of his or her family genealogy, age, occupation and in some cases, status in the society. A total of three hundred and eight interviews were conducted, involving five hundred and ninety-six informants. The distribution is as indicated in Table One.

TABLE ONE

INTERVIEW INFORMATION

| Centre | Number of Interviews Group | Individual | Total | Number of Informants | Number of Genealogies |
|---|---|---|---|---|---|
| Nsukka | 7 | 68 | 75 | 135 | 51 |
| Udi | 4 | 58 | 62 | 129 | 44 |
| Awka | 7 | 53 | 60 | 108 | 37 |
| Nkwere | 4 | 38 | 42 | 105 | 42 |
| Abiriba | 2 | 32 | 34 | 56 | 28 |
| Uturu | 1 | 13 | 14 | 21 | 17 |
| Others | 2 | 19 | 21 | 42 | 27 |
| Totals | 27 | 281 | 308 | 596 | 246 |

The relative dating applied in the analysis in the chapters which follow is derived from the genealogies obtained from the informants. In the absence of written documentation and royal genealogies, commoner genealogies are the only viable option in establishing a chronological framework. The neglect of genealogies by historians of

precolonial Igbo society has been decried earlier. It is not enough to find out what happened in the past, how and why. It is crucial to establish when, that is, a chronology of the events investigated. Otherwise, historical accounts become mere timeless narratives.

As Yves Person correctly argues, in a non-literate society, "without genealogies we are chronologically in the dark".[75] Igbo history, like African history in general, needs to be reconstructed piece meal, utilising various sources and disciplines such as sociology, linguistics, agricultural traditions and so forth. But the materials can only become meaningful if arranged chronologically. Therefore, Person urges, "at a price of tedious work, we may construct a chronological outline without which there is no history".[76]

Oral tradition may very severely limit our chronological time depth to only a few centuries. Archaeology may help to extend the time horizon to more ancient epochs. But we must first try and establish the epochs as far back as oral tradition can take us. The strength or stability of oral tradition is, of course, a function of the social structure which gave rise to the tradition, and which the tradition itself explains and rationalises. As the Igbo social structure seems to be cracking under the impact of 'modernity', so also the oral

tradition. The older generations of Igbo men and women versed in oral tradition are disappearing fast. The younger ones are unprepared to inherit the wisdom of the ages. For this reason, Igbo historiography needs to be pursued with a sense of urgency, very much like a salvage operation.

In the salvage operation, genealogies should be an area of special interest, for dates, absolute or relative, are the sign posts of history. Erim's work on the Idoma, next-door neighbours of the Igbo, should provide a living inspiration. The validity of genealogical dates can be confirmed by internal and external ties-in. As indicated earlier, Sargent's work was, in this respect, of tremendous use to the present researcher. It was also reassuring to find that our genealogical dates for the inception of iron in Umundu in the Nsukka area are in close agreement with the archaeological dates for the technology in this same community.[77] From the point of view of the use of genealogies in working out a time frame, this work belongs to a new phase in Igbo historiography.

John Oriji indicates in his thesis on the Ngwa people that during his field work, he found group interviews "time consuming and comparatively unproductive",[78] and so discontinued them. There is no question that the

collection of oral traditions consumes a great deal of time, and can be vexatious at times. This is particularly so in a group interview where orderly discussion can easily degenerate into disorderly exchanges between groups or individuals with opposing views. On the part of the researcher, this type of situation calls for patience, the adoption of tactful human relations and appreciation of the idiosyncracies of the interviewees.

However, the present researcher fails to share the pessimism about the usefulness of group interviews. Differences in opinion between groups or individuals, may be symptomatic of differences in historical traditions. Group interviews can be useful in identifying knowledgeable individuals in a community as well as those with differing opinions or traditions. The researcher can then follow up such individual informants. Group interviews which are conducted after individual interviews can also provide forums for resolving discrepancies in the traditions given by informants during individual interviews.

What is more, genealogies obtained at group interviews tend to be more coherant than those given at individual interviews. Individual interviews, of course, have their advantages. For instance, there is a much greater intimacy between the researcher and the informant,

and the informant is more open to discuss matters. Besides, individual accounts are less likely to conform to what G.I. Jones referred to as the 'Authorized Version'.[79] However, a historian must have the authorized version too.

V. Conclusion

This chapter introduces the reader to the geography of the Igbo region, noting that it is mainly Guinea forest/savanna, which is man-made, rather than natural vegetation. Given, as is shown in chapter three, the large consumption of wood fuel in the iron industry, the relationship between the vegetation and the subject of this work is obvious. The chapter also introduces the reader to the state of Igbo historiography, showing that the history of Igboland or of iron technology pre-1900 is undeveloped to the point of being almost non-existent.

The reasons for this state of 'underdevelopment' are explained and it is suggested that the first prerequisite to historiographical development in Igboland must be dating and chronology based upon a collation of family genealogies. Finally, it is noted that while the meagre written sources have been meticulously combed for scraps of history about iron, the major source of information for this thesis has been the oral traditions of the people in the iron producing regions.

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# CHAPTER TWO

## THE PROBLEM OF THE ORIGINS AND SPREAD OF IRON TECHNOLOGY IN IGBOLAND, c.1542 - 1900

The previous chapter stressed the underdevelopment and consequently, our ignorance of Igbo history. As far as the present researcher is aware, no previous work has been done on the history of technology in Igboland. This chapter seeks to reconstruct the advent and spread of iron technology in Igboland from c.1542 - 1900. The period is divided into three phases. The first, c.1542-1603, traces the development from the Nsukka area to Udi. The second, c.1604-1706, deals with the diffusion of the technology from Udi into the Igbo heartland. The third, c.1708-1900, discusses the emergence of tertiary centres which derived their impetus primarily from the earlier centres.

The reconstruction is constrained by the paucity of archaeological and ethnographic data, coupled with the problem that the oral evidence in some instances tends to present a bewildering jig-saw of seeming contradictions. The analysis below does not, therefore, pretend to reach back to the genesis of the technology in the Igbo area. A concerted multi-disciplinary research may in future provide the data to make such a reconstruction feasible. For the same reasons, only a broad reconstruction of the development is possible now. As new evidence comes to

light, more detailed analyses should become feasible. The problem of the origins and diffusion of iron in Igboland is an aspect of the same problem on the West African level. The Igbo case cannot realistically be divorced from the wider West African dimension. To this end, it seems appropriate to begin with a brief survey of the debate and problem on the West African and Igbo levels in general.

## Section One: Origins Problem -- General

### I. The West African Dimension

On the West African level, the origin and diffusion issue has been debated among Iron Age archaeologists and precolonial historians of Africa for more than a quarter of a century. However, in spite of the scholarship the subject has generated, or maybe because of it, no concensual verdict has emerged from the specialists. The literature reveals two sharply opposing schools of thought -- the diffusionist and the autochthonous.[1]

The kernel of the diffusionist contention is that iron was discovered only once in the world and that the knowledge spread to other regions ultimately from that single discovery. In other words, there was no multiple discovery of iron as was probably the case with agriculture. Graham Connah's statement typifies this viewpoint:

> The smelting of iron is an extremely complicated process and it is thought that it was ever discovered once. This was in Anatolia about 1500 B.C.[2]

A synthesised version of the diffusionist argument may be briefly stated. Bronze metallurgy was discovered in the Middle East, c.5000 B.C. It diffused to Europe from there fairly rapidly, but it did not penetrate beyond the Mediterranean region of Africa and the Northwestern Atlantic seaboard. The rest of Africa did not pass through the Bronze Age. Then about 1500 B.C., iron was discovered in eastern Anatolia under the Hittite Empire. As with bronze, iron technology spread relatively quickly through the Middle East into Europe.

The pace of diffusion in Africa south of the Sahara desert was painfully slow because the region did not pass through the Bronze Age. Because of the complicated process in iron smelting, a pyro-metallurgical experience of a long duration was a precondition to the discovery of iron.[3] In the Middle East, 3000 years of bronze metallurgy preceded the discovery of iron. Africa did not have the preconditional experience and so, could not have discovered iron independently.

Although the diffusionists are one in their belief in the external provenance of iron in West Africa, they are divided about the routes of diffusion. Four hypotheses can be identified: the Meroitic, the trans-saharan, the

maritime, and the multiple diffusion hypotheses. According to the Meroitic hypothesis, iron technology spread from Anatolia via Egypt to Meroe some time between the fifth and fourth centuries B.C. From Meroe, the technology spread into West and Central Africa.[4] Some archaeologists, such as B.G. Trigger, have suggested that iron reached Meroe from South Arabia through Ethiopia.[5] Against this it has been pointed out that excavations at Timma in the kingdom of Qataban in the south Yemen which was destroyed between A.D. 10 and 25 produced bronze but no iron.[6] It has been suggested also that the Galla of Ethiopia had no knowledge of iron and used cow horns as spears up to the sixteenth century A.D.[7]

The Meroitic hypothesis used to enjoy wide support among the diffusionists until certain archaeological discoveries in Nigeria in the late 1950s and the 1960s rendered it suspect. The discoveries were made at Taruga near Abuja, at Daima, located south of the Lake Chad and at a place referred to archaeologically as RS 63/32, near Yelwa, north of the Benue River.

In the Taruga excavation, Bernard Fagg recovered iron smelting furnace fragments which yielded radiocarbon dates of 440 140 B.C. and 280 120 B.C.[8] From RS 63/32 were recovered iron objects carbon-dated to between A.D. 100 75 and 700 105.[9] Daima revealed a succession of

settlements spanning the period from the sixth century B.C. to the eleventh century A.D. The site indicated a transition from a stone- and bone-using technology to iron, with the earliest evidence of iron dating A.D. 630 190.[10]

Daima is located in the narrow portion of the natural east-west corridor between Lake Chad and the Mandara mountains. Taruga and RS 63/32 lie farther south. If iron technology came to Nigeria via Meroe, it would be logical to expect Daima to receive the innovation before Taruga and RS 63/32. This does not seem to have happened. From the available evidence, Taruga and RS 63/32 predate Daima by around 800 and 500 years, respectively. What is more, as R.F. Tylcote and others point out, the radio-carbon dating of the Nok culture makes it clear that iron working was earlier in the Nok area than in Meroe. Tylcote is quick to add -- "yet one cannot accept the possibility of independent development in this case as there was no pyro-metallurgical tradition to build upon".[11]

The weakening of the Meroitic hypothesis and the rejection of possible independent origin of the technology popularised the theory of trans-saharan diffusion. The proponents of this theory attribute the advent of the technology to Phoenician traders in North Africa. The

Phoenicians had iron by the time they founded Carthage in the ninth century B.C. Through their trade connection with the Tuaregs of the Sahara, the technology is thought to have been transmitted to West Africa.[12]

Against this suggestion it has been argued that iron smelting was a complex process and its transfer needed more than cultural contact but culture interaction usually involving immigration and settlement.[13] Tylcote suggests that the vendors of iron technology in West Africa possibly had "some sort of settlement to convey the technology of smelting to the inhabitants".[14] He also thinks that the Carthagenians might have had settlements south of the Morocco - Mogador line which served as diffusion points to West Africa.[15] However, there is no extant archaeological or ethnographic evidence to support this hypothesis.

While some diffusionists agree on the Carthagenian inspiration of the technology in West Africa, they dispute the trans-saharan transmission theory. They argue that there is no clear evidence of early trade between the Carthagenians and the Tuaregs before the introduction of the camel in the second century B.C. It is also argued that the absence of wood fuel would have made the Sahara a difficult milieu for transmitting the technology. Maritime transmission via the coast of Northwest Africa is

thus proposed.[16] It is argued that the Phoenicians were widely respected in the ancient world for their skill in maritime affairs; and that Carthage and all the Phoenician cities were much more oriented towards the sea than towards the land. A series of maritime ventures are said to have been undertaken down the West African coast by Phoenician sailors, beginning in the late fifth century B.C. The most important of these ventures is said to have been that of Hanno, who, it is argued, probably went as far as the Cameroon coast.[17] It is suggested that it was probably during these journeys that iron technology was transmitted to the West African people. However, there is a lot of controversy about the authenticity of the accounts of Phoenician ventures to West Africa. Some of the accounts are thought to have been forged.[18]

The loop-holes in the above theories have encouraged speculation on the possibility of multiple diffusion. The proponents of this theory argue that, although the earliest knowledge of iron technology in West Africa may have been transmitted via the western Sahara, not all parts of the West African region could have derived the technology from that direction. Given the geographical location of Daima, the knowledge coming from the western Sahara area would have taken a considerably long period of time to reach there. It is suggested that "perhaps indeed

it never was reached by this diffusion. For it is not impossible that its earliest iron may have been Meroitic and may represent a separate and later diffusion from that source".[19]

The proponents of independent discovery of iron in West Africa contend that at present, there is no ascertainable evidence for canvassing a confident theory of external provenance. The evidence to support the theory is too fragmentary and tenuous and the argument presumptive. It is contended that there is evidence to permit the proposition of an independent origin of the technology in West Africa.

The main argument of the indigenous school runs as follows. The evolutionary theory from stone through pyro-metallurgy to iron may not necessarily have universal applicability. The conditions which prevailed in Anatolia were different from those in West Africa. In the latter, copper was very scarce, whereas iron ore was widely distributed. Bassey W. Andah, a leading proponent of the autochthonous theory, argues that "accidental discovery of iron could have been made in the process of firing pottery".[20] Merrick Posnansky considers the idea "emotionally attractive but completely unsupportable."[21]

Again, it is argued that if pyro-metallurgy was an inescapable prelude to the discovery of iron, this

precondition may have been met at Akjoujt and Lemdena in Mauretania. Here copper metallurgy has been dated to the ninth and sixth centuries. Roland Oliver and Brian Fagan observe that

> at Akjoujt copper and iron ores are so intermixed that it would have been impossible to smelt one without the other. It would have been ignorance of hardening iron by hammering that would have caused copper to be worked before iron.[22]

Oliver Davies suggests that because copper was scarce in West Africa, copper smelters, on moving out of Akjoujt, might have experimented with stones enriched with laterite. Lateritic stones were a source of iron in many iron smelting centres in West Africa. Through such experimentation, they could "hit upon iron themselves".[23] J.A. Charles also thinks that during the Bronze Age, iron was produced in small quantities, presumably as a by-product of copper smelting.

The close intermixture of iron and copper ores may have enhanced the chances of accidental discovery of iron. R.J. Forbes observes that scientific discoveries have often been made by accident, experiment and design.[25] It is instructive that at Azelick, Niger Republic, evidence of iron working has been carbon-dated to B.C. 1360 and 950 100. The dates were calibrated to give 1662 and 1175 117 B.C.[26] But some archaeologists think that the dates

are too early.[27]

It is interesting to observe that the earlier evidence of iron working in West Africa has all been rejected by the diffusionists. Mention has just been made above of the Azelick dates. Two other instances may be cited. The first carbon dates from Nok in 1957 ranged from 3265 65 B.C. to 200 50 A.D.[28] The sample analysists rejected the earlier date as being "impossibly old".[29] A few years later, Nteresso, Ghana produced evidence of iron with radio-carbon dates ranging from 1630 130 to 1240 120 B.C.[30] Based on the above evidence, Davies, the archaeologist who excavated the site, concluded that "iron was known in Ghana at the latest before 1000 B.C.," and that "a possibility is that it was autochthonous in West Africa".[31]

Davies has since come under such severe attacks from the diffusionists, he has proposed a reconsideration of his submission. He now thinks that his dates are "unexpectedly early".[32] Shaw considers the Nteresso reports to be in "an unsatisfactory state" and thinks that they "must be kept in a suspense account".[33] However, by describing the earlier dates for iron in West Africa as "impossibly old" and "unexpectedly early", the critics tend to betray a preconceived notion of what dates would be acceptable. Such a commitment to diffusionism has been

criticised as a revival of the Hamitic hypothesis[34], and a hindrance to an objective interpretation of the cultural and technological achievements of the ancient peoples who lived south of the Sahara desert.

What seems certain is that current evidence of the beginnings of iron technology in West Africa is anything but satisfactory. It thus seems a matter of opinion which of the available evidence should or should not be consigned to the suggested suspense account. The summations of Michael Doran and Posnansky appear most apt:

> Because of the extremely fragmentary nature of the surviving evidence, at present little more than the most generalized hypothesis is possible in any estimation of the origin and spread of early iron.[35] It is [therefore] important to stress the highly speculative nature of the arguments ... There are several acceptable viewpoints and none can as yet be proven as correct.[36]

II. The Igbo Dimension of the Problem

Unlike the position on the West African level, scholars of Igbo history have rarely paid attention to the problem of the origins and spread of iron in the Igbo area. The archaeology of Igboland is still in its infancy. The first archaeological digs in this area were conducted by Thurstan Shaw in 1959/60 and 1964. Though after him, a couple more excavations have been carried out by other archaeologists, some with exciting results, the picture of iron technology in the area in precolonial

times remains blurred and truncated. Many hiati remain which cover long and critical periods of time.

Yet, preliminary archaeological surveys of the Igbo area have revealed many iron sites of considerable scale and apparent antiquity.[37] The sites have been identified in various localities in Abakaliki, Abiriba, Awgu, Nsukka, Okigwe, Udi and Uturu. But although the harvest appears tantalizingly plentiful, the labourers in the field are lamentably few. Partly for this reason and partly for inadequate funding, only very few of the sites have been excavated, and fewer carbon-dated.

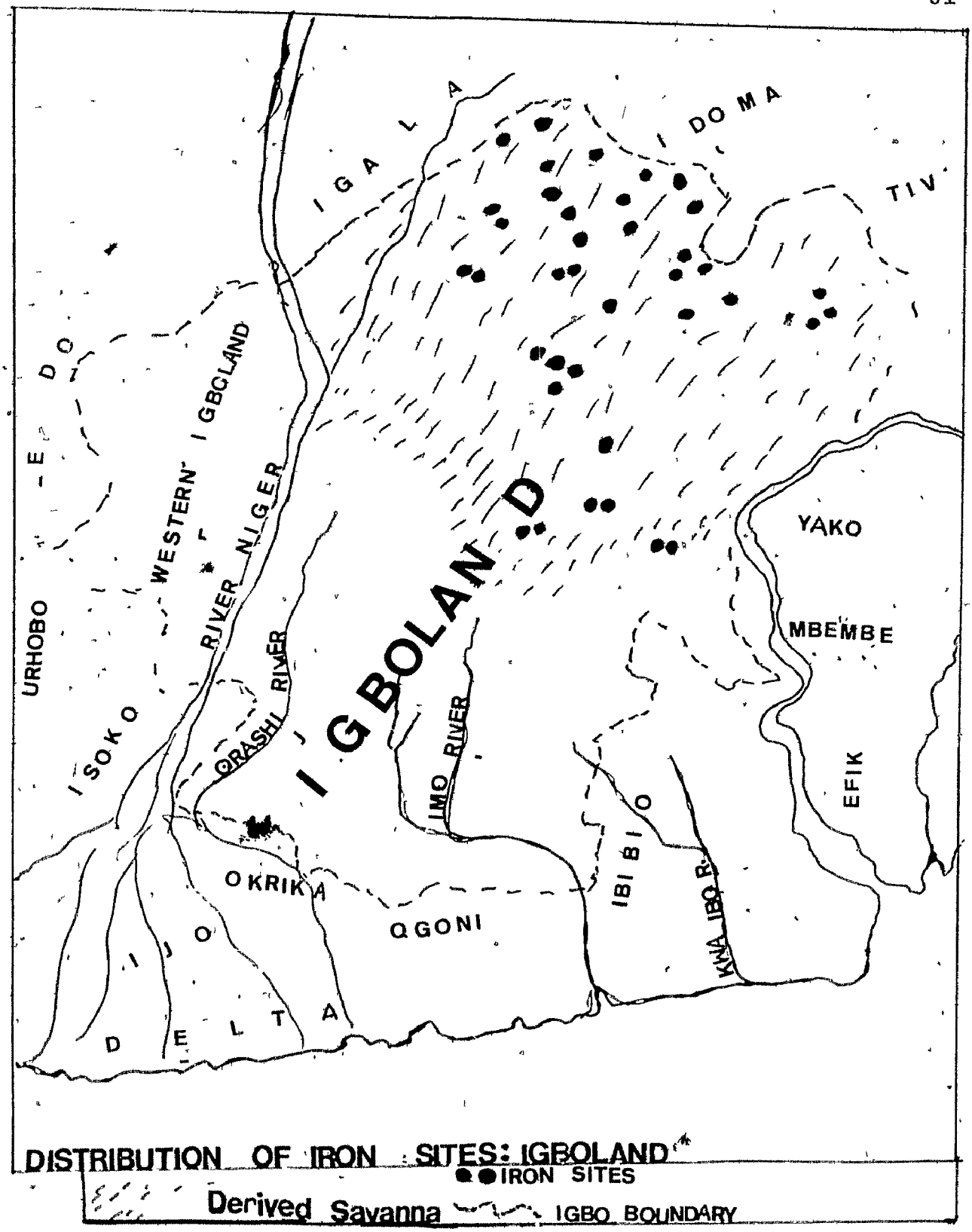
At Igbo-ukwu, Shaw excavated three sites, the results of which have been published in a two volume book.[38] One of the sites is described as a ritual shrine, another as the burial chamber of an important personage and the third as a refuse pit. Altogether, the sites yielded a fascinating repertory of artifacts -- 110 major and 575 minor copper and bronze objects, iron products and slag pieces, and over 165,000 beads, some of Indian manufacture and some perhaps from Venice.[39]

The bronze and copper objects included bells, anklets, wristlets, pendants, ornate scabbards, a horse-riding human figurine, staffs, and bowls of various sizes and shapes. Of the five carbon dates from Igbo-ukwu, four belong to the ninth century A.D.: 840 110, 840 145, 850

120 and 875 130. The fifth, appropriately tagged "the odd man out", by Shaw, bore a fifteenth century date, 1445 70 A.D. The Igbo-ukwu artifacts are thus taken to belong to the ninth century.

Three other excavations were carried out by Donald D. Hartle. One was the Nwankwor Midden site near Bende. The iron artifacts from there yielded radio-carbon dates of 805 95 A.D. and after 1805.[41] The second was the Ifeka Garden, Ezira, which produced about twenty-five objects of bronze and a few of iron dated A.D. 1495 95.[42] The site, like one of the three at Igbo-ukwu, is thought to be the burial chamber of a high dignitary. The bronze artifacts included anklets, bracelets, bells and rings while the iron artifacts were gongs and a sword blade. The third site in Umundu, about thirteen kilometres northeast of Nsukka town, yielded dates ranging from A.D. 1625 75 to 1925.[43] Bende, Ezira, and Igbo-ukwu were probably consuming rather than producing centres. Umundu was not only a producing centre but its products were exclusively iron.

Isichei, a historian, has asserted boldly that iron "doubtless reached Igboland by diffusion from Nok".[44] She omitted to cite her source. F.N. Anozie, an archaeologist, disagrees, arguing that the bloomery process employed by the Nok smelters was different from


IGALA
IDOMA
TIV
EDO
WESTERN IGBOLAND
RIVER NIGER
URHOBO
ISOKO
ORASHI RIVER
IGBOLAND
IMO RIVER
YAKO
MBEMBE
EFIK
IBIBIO
KWA IBO R.
OKRIKA
OGONI
IJO
DELTA
DISTRIBUTION OF IRON SITES: IGBOLAND
IRON SITES
Derived Savanna
IGBO BOUNDARY

MAP ONE

the system employed by the ancient Igbo smelters.[45] Archaeologists use varying parameters in classifying smelting furnaces. They are either bowl or shaft furnaces; natural or forced draughts, or slag-tapping or non-slag-tapping. The Taruga smelters of Nok used thin-walled mud shafts built over shallow pits dug in the ground.[46] The furnaces were non-slag-tapping. The ancient Igbo smelters are said to have used the pit or bowl furnace with no slag-tapping provision. Later smelters used the shaft furnace.[47] Walter Cline's survey of the technology in Africa seems to suggest a rather random distribution of the furnace types.[48]

Some archaeologists suggest that in discussing the ancestral relationship between smelting traditions, "what needs to be stressed is the bloomery process".[49] Accordingly, differences in furnace types are said to imply different sources of origin of the technology. The pit furnace is considered the earliest and most primitive employed in smelting. This type of furnace is believed to have been used at Lejja in Nsukka and possibly Aku, a town a few kilometres south of Lejja. An evolved version was probably employed in the Abakaliki area. Other smelting centres in Igboland would appear to have employed the wall or shaft furnace.

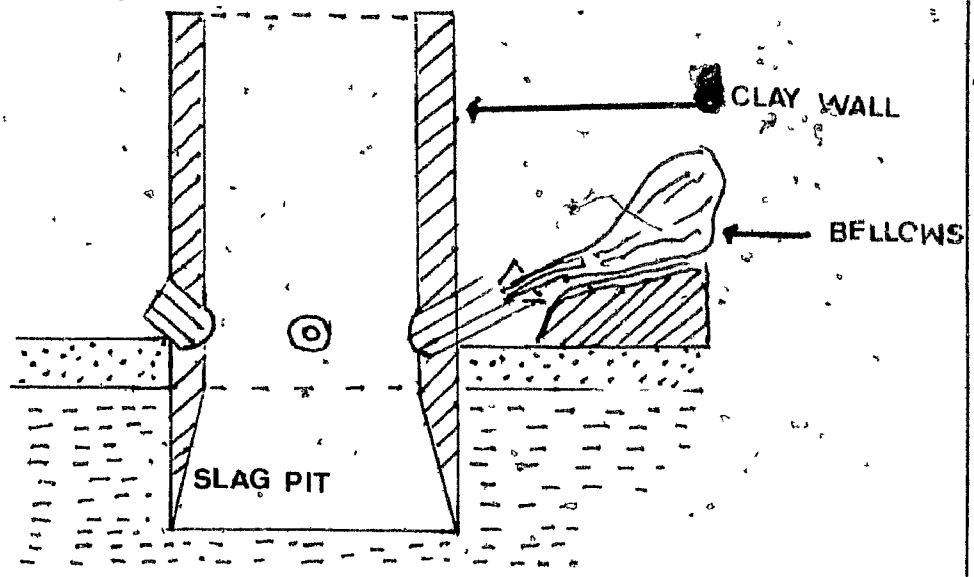
The pit furnace typically consisted of a clay-lined

cylindrical pit in the ground, usually between thirty and fifty centimetres in diametre. The pit served as the combustion chamber. To achieve the temperature adequate for smelting the ore, bellows connected to the lip of the pit by a clay nozzle or tuyere, were used to introduce air draught to the combustion chamber.[50] The draught was kept in continuous flow by a relay of workers who pumped the bellows.

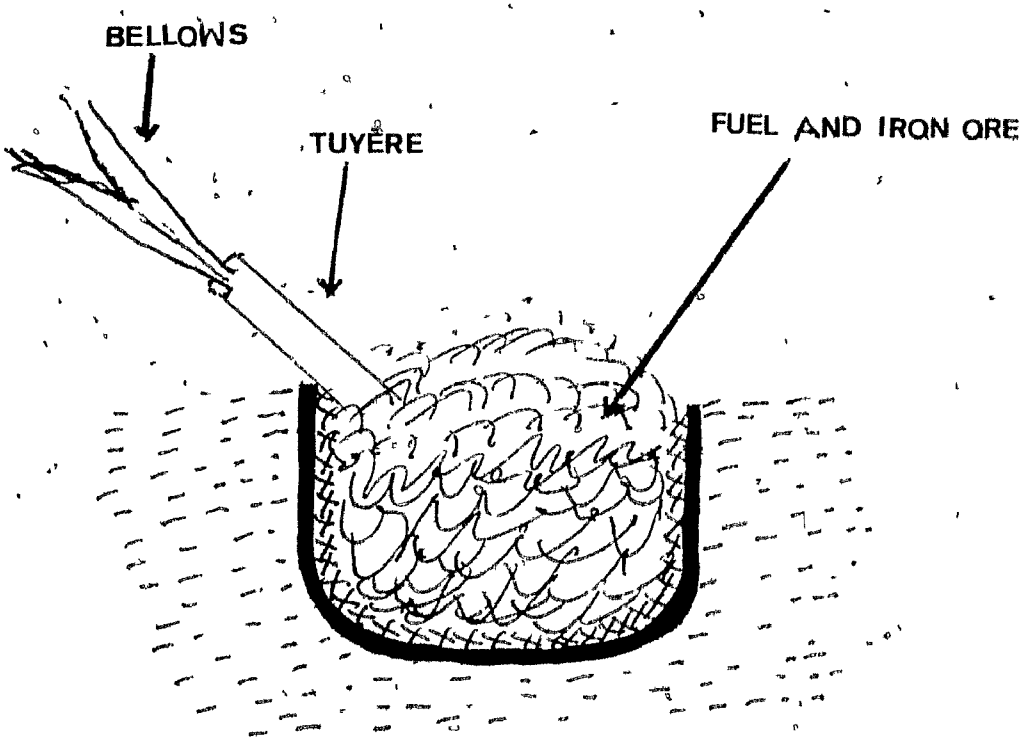
If the Lejja furnace type and bloomery process are confirmed by future research, this would be interesting in that it would suggest that the Lejja iron industry might belong to the early phase of the technology in Africa. Lejja is yet to be dated; but Anozie and Keith Ray, the archaeologists who have been analysing the artifacts, seem to be convinced that Lejja is "potentially the most important iron working site so far discovered in Nigeria".[51]

Evidence of previous settlement and traces of the earlier phase of the smelting industry in Lejja have been encountered 1.5 metres in the ground. This seems to suggest that the earlier Lejja settlement as well as iron technology is ancient indeed. Other inexplicit evidence suggestive of the antiquity of the technology in Lejja will be discussed in detail shortly.

The traditions of some iron centres in Igboland




TARUGA FURNACE (AFTER TYLCOTE, 1975)




LEJJA PIT FURNACE(AFTER ANOZIE, 1980)

Illustration One: Taruga and Lejja Furnaces

insist upon the independent origin of the technology. But it is hard to say how much credence can be accorded such traditions. As will become clear in the discussion below, in some communities, it is not difficult to establish the source of the technology. In the others, it is hard to sustain or disprove the claims of independent origin. Some of the claims may simply imply that the technology had been so long established in the communities, the people have lost all memories of its beginnings.

Neaher has made a careful study of the bronze traditions of southern Nigeria from the perspective of an art historian. She concluded that while iron technology was at an evolving stage at Taruga around 500 B.C., "it is possible that the northern Igbo may have developed extractive and forging technology at an early stage as well".[52] She does not suggest how or from what source the technology may have developed in Igboland. She does seem to imply, however, that iron may have been developed in both areas contemporaneously. If so, the Taruga tradition could not be ancestral to the northern Igboland tradition.

It is certain, however, that the Igala (formerly Akpoto) country historically was the gateway in the transmission of ideas, trade commodities and technology southwards into Igboland and northwards from Igboland. The Igbo-ukwu artifacts suggest trade links with the

savanna region and even beyond the Sahara desert. The strategic location of the Akpoto country relative to the Niger and Benue Rivers placed it in an ideal position to play the intermediary role. In the Igbo area, as presently constituted, the Nsukka people are the closest neighbours to the Akpoto. The Nsukka area was, therefore, a critical interface in the passage of ideas and material culture between Igboland and Akpoto. The modern Igala are a fusion of proto-Yoruba, Bini, Igbo and Kwararafan elements, probably close to the Idoma. The Kwararafan elements came in c.1680.[53]

One way of ascertaining cultural diffusion between groups is to compare their cultural vocabularies. As enunciated by J.B. Webster, the vocabularies fall into two groups -- those of the visible and those of the invisible category.[54] The latter relate to intangible items such as thoughts or ideas. The former relate to physical objects; they are more easily assimilated and retained by the recipient culture than vocabularies in the invisible category.

The comparison of the basic technical vocabularies of the Nsukka Igbo and Igala iron workers as illustrated in Table Two, suggests that approximately 56% show evidence of borrowing. Some of the key terms are Igbo, for example, osigwe or omereigwe, eko and ihuama. Osigwe

TABLE TWO

BASIC VOCABULARY IN IRON TECHNOLOGY: VISIBLE CATEGORY

| | English | Nsukka-Igbo | Igala | Remarks |
|---|---|---|---|---|
| 1. | Smith | Eguru | Alo | No Borrowing |
| 2. | Smelter | Osigwe/Omerigwe | Omerigwe | Borrowing |
| 3. | Bellows | Eko | Oburutu | No Borrowing |
| 4. | Hammer | Otutu | Otutu | Borrowing |
| 5. | Anvil | Ihuama | Uka | No Borrowing |
| 6. | Furnace | Ado | Ado | Borrowing |
| 7. | Forge | Ulo Eguru | Anyu Agwalo | No Borrowing |
| 8. | Iron stone | Ikpojo | Ikpojo | Borrowing |
| 9. | Slag | Ehuru | Afuru | Borrowing |

(smelter) is shortened from two Igbo words, osi -- one who boils or cooks something, and igwe, iron. Omerigwe is also contracted from two words, omere -- a person who has performed or mastered a skill, and igwe, iron. Eko (bellows) refers to an object that is inflatable. Ihuama (anvil) is made up of two words also: ihu, meaning face or the crucial portion of an object, and ama, an assembly ground.

Metaphorically, the anvil can be likened to the Igbo assembly ground. The ama was the most important socio-political and ritual institution in the traditional Igbo village community.[55] In the same way, the anvil was, perhaps, the central tool in the smith's kit, both from

the functional and ritual points of view. Disputes between people could be settled by the parties swearing oaths on the smith's anvil. In much the same way, the most crucial political and judicial decisions in Igboland were taken at the assembly ground.

On the other hand, ikpojo, the Igala and Nsukka term for iron stone, is also the name of an Igala town which was a famous smelting centre.[56] It seems likely that the term came from Akpoto to Nsukka. Of the other terms which suggest borrowing between the Igala and the Nsukka Igbo, it is hard to determine who borrowed from the other. The terms for the crucial visible items -- bellows, anvil and smith -- do not suggest borrowing. Yet these are items which ought to have been most easily assimilated. These discrepancies make it difficult to establish a diffusion pattern.

In Awka, the smiths had a secret language called ivu aba. This language was employed among the smiths when they did not want their discussion to be understood by other people. Ivu aba is still widely spoken by the older generations of the Awka people.[57] But its origin remains a mystery. The traditions say the language is of primordial origin. It is inviting to speculate that ivu aba might be the language of the primeval vendors of iron technology in Igboland, especially in Awka. But this

seems doubtful.

First, as will be shown below, iron technology came to Awka from Udi, and to Udi from Nsukka. But ivu aba or even a variant of it is neither spoken in Nsukka nor in Udi. Second, the language was not spoken by the smiths alone in Awka but by other itinerant professional groups as well; Amikwo physicians and Umudioka artists and scarificators, for example. Third, Awka traditions suggest that ivu aba predated the advent of iron in the community. Finally, the Awka themselves say that they were not the only people who spoke ivu aba in their general area. Other communities such as Agukwu and Ifite Nibo spoke ivu aba or their own versions of it.[58] Agukwu lies about twenty kilometres south of Awka, and Nibo about eighteen kilometres to the southeast.

During the field research some ivu aba vocabulary and sentences were recorded at Awka together with their Igbo translation (See appendix). Some of the words appear to be Igbo in spelling and pronunciation but have entirely different meanings from what they would have been as Igbo vocabulary. The vocabulary and sentences were shown to an Igala man, Abel Abu of the Department of Archaeology, University of Nigeria, Nsukka.[59] He was unable to recognise them as being Igala.

It seems certain that ivu aba is neither Igbo nor

(modern) Igala. Awka traditions indicate that the community had, through the centuries witnessed continual immigration of peoples from different parts of Igboland and from non-Igbo speaking areas such as Idoma, Igala, and Ijo of the Niger delta. The immigrants were absorbed into the Awka-Igbo community. Almost all of them lost their languages, and all became Igbo-speaking. One group might have retained its own or an adulterated form of it which it probably used as a professional language.

Amikwo is said to be among the early villages in Awka. Like most Awka villages, it has no tradition of migration from elsewhere. The Amikwo people were physicians and diviners and have a tradition of illineration going back to the unremembered past. It is likely that ~~they were~~ among the earliest immigrants into Awka but have lost the traditions of their migration. It seems plausible that they came as travelling diviners and physicians. As V.C. Uchendu observes, in precolonial Igboland, diviners or physicians travelled extensively with no danger to their persons.[60] It is suggested, speculatively, that ivu aba was the language spoken by the early Amikwo, possibly migrating from the Akpoto country.

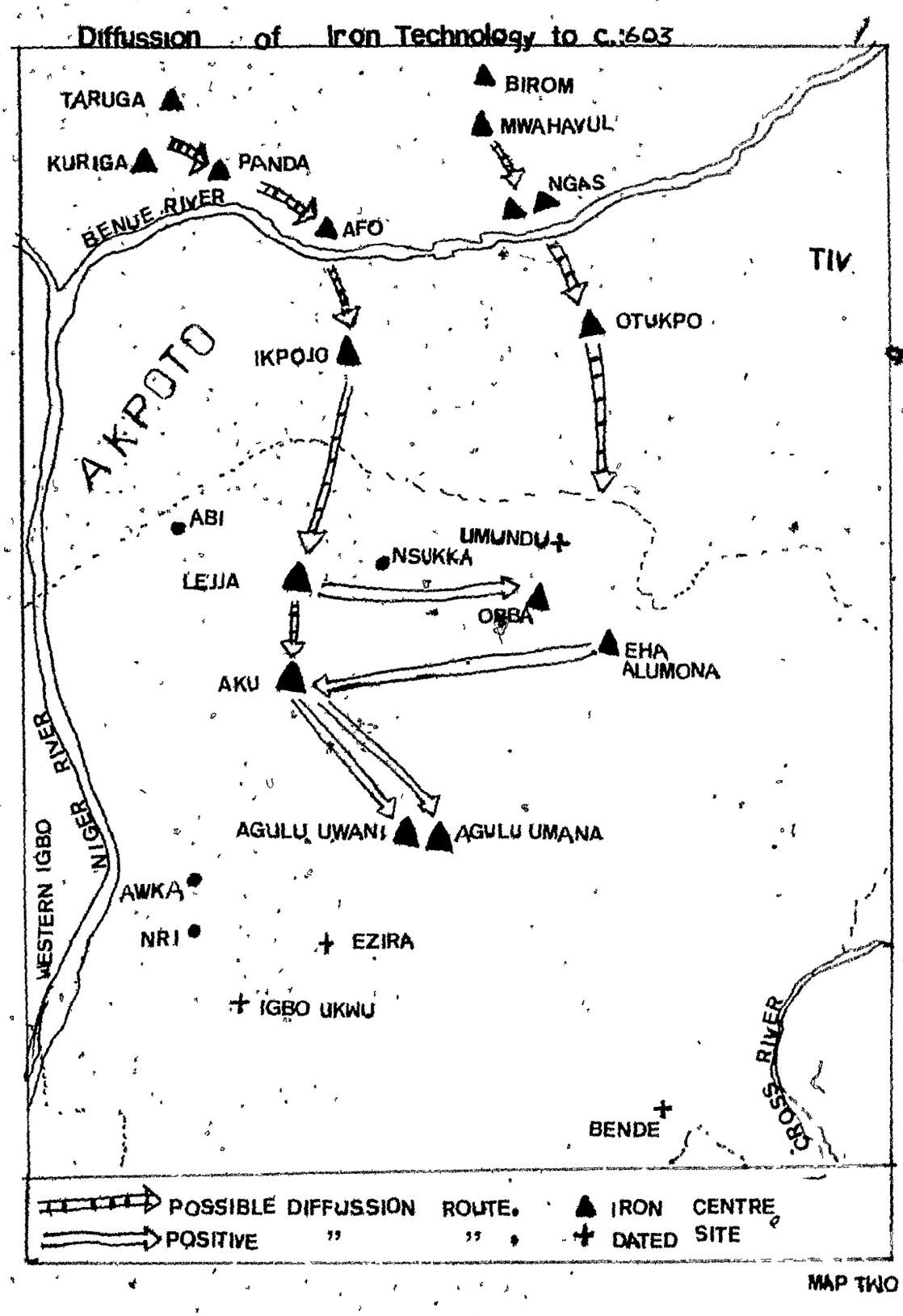
However, in respect of the Nsukka - Igala vocabulary of iron technology compared above, it should be pertinent to emphasise that no historical linguistic research has as

yet been carried out in the Igala - Nsukka borderland. Such a study might reveal some mutation in the languages or vocabularies of the people who have lived in that zone. It is probable, for instance, that the earlier technical vocabulary of the iron workers in that area was Akpoto; the Akpoto being the original inhabitants of the Idoma - Igala country of today. However, as Sargent indicates,

> since c.1500, various factors have caused the Okpoto culture, language and socio-political institutions to slowly disappear. Today it is difficult to confirm Okpoto origin for any individual or group.[61]

It is clear that the Igbo or Igala borrowing was largely a phenomenon of the pre-1680 period. Thus the modern language we are using to compare is Igala, but, historically, the pre-1680 language is best described as Akpoto.

The evidence for the early diffusion of iron into Igboland from the region to its north is as yet inconclusive and circumstantial. We lack sufficient data to sound as positive as Isichei on the provenance of the technology from Taruga. Nevertheless, a northern provenance seems a less fragile proposition to support than that of independent origin. Although the bloomery processes of Taruga and Lejja smelting technologies may differ, it is doubtful that this, ipso facto, should constitute sufficient evidence of different origins. The


Diffussion of Iron Technology to c.1603
TARUGA
BIROM
MWAHAVUL
KURIGA
PANDA
NGAS
BENUE RIVER
AFO
TIV
OTUKPO
IKPOJO
AKPOTO
ABI
UMUNDU
NSUKKA
LEJJA
ORBA
EHA ALUMONA
AKU
AGULU UWANI
AGULU UMANA
AWKA
NRI
EZIRA
IGBO UKWU
WESTERN IGBO
NIGER RIVER
CROSS RIVER
BENDE
POSSIBLE DIFFUSSION ROUTE
POSITIVE " "
IRON CENTRE
DATED SITE

MAP TWO

differences may represent variations in human responses or adjustments to broadly similar technological processes and problems.

If the Taruga and the RS 63/32 dates are arranged in a chronological sequence, it is easy to imagine a north-to-south hypothetical line or lines of diffusion. There were two major areas of concentration of iron smelting located just to the north of the Benue River. One of these included Taruga, Panda, Afo, and Kuriga. The other area of concentration included Birom, where numerous sites have been identified, Mwahavul, Pankshin and several other sites on the Ngas Hill.

The antiquity of iron technology in these sites is yet to be determined. But their proximity to Taruga, where iron was known by 440 140 B.C., may suggest dates that are neither much later nor much earlier. If, indeed, iron was known at Katsina Ala around 400 B.C.,[62] it would be logical to expect the dates for iron in the other sites not to vary greatly between 440 and 400 B.C. Two lines of diffusion were, therefore, possible, one originating in the Taruga cluster, the other in the Birom - Pankshin cluster. From either direction, the Igala - Idoma country was an important corridor.

The concentration of smelting sites in the Nsukka - Igala and Idoma - Nsukka border areas seems to lend

support to the suspicion of the northern origin of the technology in the Nsukka area. In 1935, several smelting kilns were still standing in the Otukpo area of Idoma. By the fifties, they had disappeared.[63] Many smelting kilns were also in the Otukpa district also of Idoma, just north of Nsukka.[64]

The primordial home of the Igbo is thought to be in the Niger - Benue confluence region.[65] Some historians point to the Anambra valley - Nsukka escarpment as one of the cradles of the proto-Igbo population coming down from the Benue valley.[66] In the course of time, the population dispersed to the more forested area of Igboland, and subsequently came to concentrate in the Awka, Okigwe, Orlu and Owerri districts; that is, the area usually referred to as the Igbo heartland.

The heartland coincides with the highest population zone in Igboland. Apparently, this zone repeatedly built up population densities, which strained the ecological milieu, resulting in a series of migrations to other parts of Igboland. It seems probable that the emergence of the high population centres in the forest environment was made possible by the penetration of iron technology from the northern part of Igboland.

## Section Two: Diffusion of Iron Technology in Igboland

### Phase One: Nsukka and Udi, c.1542 - 1603

We have seen that the Igbo-ukwu artifacts have produced the earliest authenticated evidence of iron in the Igbo area. However, there are grounds to suggest that Igbo-ukwu was not the cradle of iron technology in Igboland. First, Shaw observes that Igbo-ukwu not only belongs to a time when iron technology was fully established but when copper and copper alloys were also used for ceremonial and ornamental purposes.[67] Second, the artistic quality of the artifacts makes it seem likely that metal technology had been practised in the Igbo area generations or, perhaps, centuries earlier. Denis Williams, an art historian, has observed that for their aesthetic beauty, the artifacts stand in a class "to be compared in Africa with Roman pieces imported at the Robetaean capital".[68] Shaw also describes some of the artifacts as "a marvel of craftsmanship".[69] Third, Igbo-ukwu was not an incipient culture but a sophisticated civilization with an elaborate kingship system and the concentration of considerable wealth by the standard of the time. ~~It had trade~~ links which reached out perhaps beyond the Sahara. Finally, Igbo-ukwu was a metal-consuming, not a producing centre. It had no iron ore

which could have provided the raw material for an iron industry.

I. The Primacy of the Nsukka Area

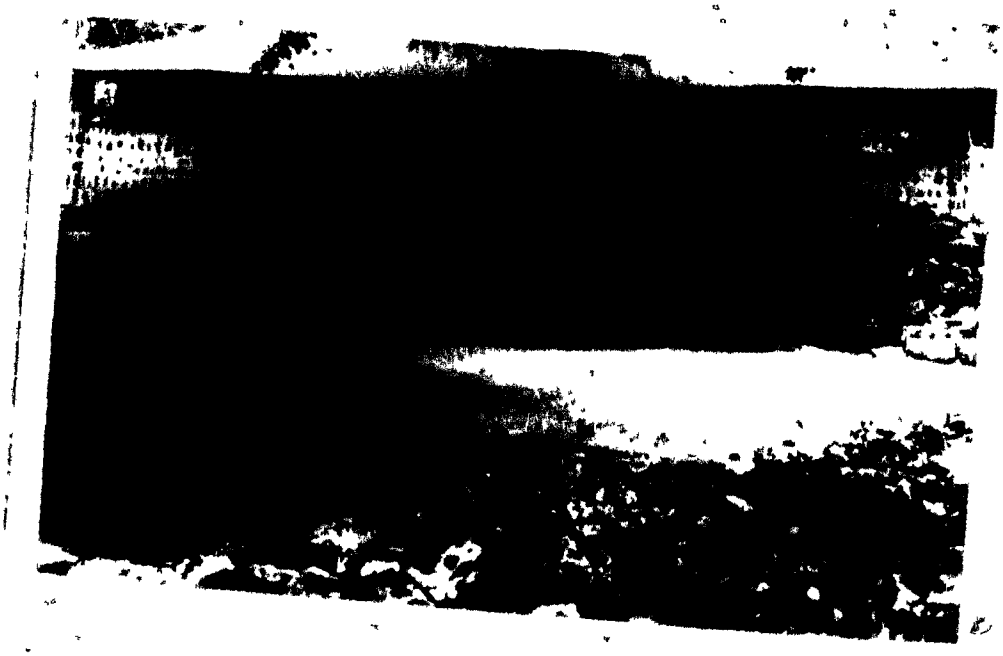
Neither colonial administrators nor ethnographers left records to suggest that the Nsukka people ever worked iron. Yet evidence from the field suggests that the Nsukka area was probably the primeval locale of iron technology in the Igbo area. Iron ore was widely distributed over much of the range of hills and plateaux extending from Nsukka through Udi, Awgu, Okigwe to Abiriba. The densest concentration of the sites has been located in the Nsukka area where considerable amounts of iron slag have been discovered at Aku, Ede Obala, Eha Alumona, Lejja, Opi Orba, Ovoko, Umundu and Uhunowere.

What anthropologists describe as "the sacred iron complex"[70] is far more elaborate in the Nsukka iron working traditon to the present than in other centres in Igboland. The sacred iron complex will be discussed in some detail later. It suffices at this stage to indicate that the concept applies to a body of ideas which assigns special mystical powers and social status to iron workers in traditional societies. In the Nsukka area, this complex has demonstrated a surprising degree of resilience, even in the face of Western cultural and technological deluge. This is in marked contrast to the

situation in the other iron centres of importance such as Abiriba, Awka and Nkwere. Anthropologists tell us that where a cultural phenomenon is best elaborated or most concentrated, it is likely to have been a source of diffusion to other areas.[71]

As for the specific locations of the earliest iron centres in the Nsukka area, it is difficult to say. To ascertain these, a concerted programme of research is required which can provide material substantiation to the extant oral traditions, the type that has been done in the West Lake region of Tanzania. The Tanzanian experiment has provided a model for a well coordinated approach to historical archaeology in an African context, as well as to the study of early iron technology.[72]

From what has been conjectured from present evidence, Lejja seems a promising candidate. Lejja is a community blessed with abundant haematite which can be found exposed by erosion on hill sides and mounds. The community is composed of thirty-three patrilineages which are grouped into three larger units - Ejuona, Akibite and Uwani, in that order of seniority. Each of the three units owns an assembly ground. The central assembly ground is located in the Dunoka lineage in Ejuona, Dunoka being the most senior descendant of Ugwuele, the founding father of the Lejja community.[73]



SLAG BLOCKS: DUNOKA, LEJJA



DERIVED SAVANNA, LEJJA

The assembly ground of Dunoka contains a fascinating assemblage of "upward of 800 blocks of slag",[74] ehuru, carefully arranged in terraced rows. The blocks serve as seats during the village assembly, and cover an area of approximately five hundred square metres. Most of the slag weigh "at least 30 to 40 kilogrammes and [some] as much as 60 kilogrammes".[75] Similar assemblages exist at the other lineage grounds, although they are less concentrated. Slag blocks have been encountered in different parts of the village, for example, at the road sides, on the surrounding hills and farm lands. Some have been discovered by the villagers deep down in the ground while digging graves or the foundation of their houses. The people use some of the blocks to lay the foundation of their dwellings, to check soil erosion and provide door steps.

The artifacts are as much a puzzle to the Lejja people as they are to the archaeologists who have been studying them. The crux of the puzzle is that the present inhabitants of Lejja have not even a faint memory of the origin of the slag. The majority of the people express no doubt in their minds that the slag blocks are the creation of Okike, God. They reject outright any suggestion that they were made by man. Their ready retort is that if they were man-made, why are they found so deep in the ground?

Others simply say, correctly perhaps, that no living person in Lejja can tell the full story of the slag.

The people have no tradition of smelting. Amaju lineage members in Dunoka were smiths in the past, but they were supplied with bloom by traders from the neighbouring villages of Aku, Opi and Umundu. The people are uncertain when their ancestors migrated to Lejja or from where precisely. They, however, claim a fraternal relationship with the Abi people to their northwest. Commoner genealogies would place the settlement of the present Lejja community not later than c.1542-1472 A.D.[76] The traditional account is that the ancestors of the present inhabitants arrived in Lejja and found it uninhabited, and the slag scattered all over the place. After settling in, the immigrants collected the slag and arranged them as they are found in the assembly grounds today.

It is evident that the slag blocks were the result of smelting, not the handiwork of Okike, as most Lejja people believe. It looks probable that the smelters produced bloom not merely for domestic consumption but for distribution to smiths in other communities. But who these smelters were and what happened to them remains an enigma. Although the traditions claim that the place was uninhabited on the arrival of Ugwuele, it seems probable

that some remnants of the prior population were met and absorbed by the immigrants. Some may have emigrated when the immigrants arrived.

The smelters at Lejja abandoned the industrial site for reasons which we may only conjecture. Two possible reasons come to mind -- one, shortage of wood fuel, and, two, some natural disaster. The traditional smelting technique, as is shown in chapter three, consumed a lot of wood fuel. Given the probability that the Lejja industrial site was exploited intensely and on a large scale for a long time, "perhaps from some time early in the first millennium B.C. to about five hundred years ago,"[77] such a shortage should not be surprising. This would result in the abandonment of the site for a new one with an ample supply of wood. It is instructive that Lejja has a very derived savanna vegetation.

The origin of the name Lejja suggests that the community was once plagued by repeated epidemics. Ugwuele, the leader of the immigrants, was afflicted with the successive deaths of his children. To end the chain of calamities, he had to make propitiatory sacrifices -- eja -- to the spirits of the land. When his next son was born, he named him Lejja (Le-ejja): "let us await the result of our sacrifices".[78] The child survived.

Among the Nsukka Igbo, Lejja is traditionally

accorded the status of the third most senior village, next to Ochima and Ikwoha in Obimo clan. This status is said to have been conferred on the village in recognition of the sacrifice it made on behalf of the rest of the Nsukka people. This seems to imply that the epidemic which confronted Ugwuele and his people existed in other areas of Nsukka. From what has been suggested above, the epidemic probably ante-dated Ugwuele's arrival in Lejja.

Infant mortality, suggested by the tradition, may have been brought about by famine. M.A. and B.O. Onwuejeogwu indicate that Igboland witnessed a severe famine, c.1465 - 1511.[79] There was a drought-induced famine in Bornu far northeast of Igboland in c.1540-1570,[80] a period which tallies with the arrival of Ugwuele in Lejja. Webster shows that c.1560 to the 1620s was a period of major droughts in Sudanese West Africa.[81] Paul Lovejoy and Stephen Baier point out that such droughts were likely to have effects far beyond the areas of occurence, and could set in motion major population movements.[82] It is plausible to suggest that the Ugwuele episode may not have been unconnected with this medley of events.

Amube Eguru in Orba, situated about nineteen kilometres northeast of Lejja, was one of the destinations of the emigratns from Lejja. Amube people say they are

related to Lejja people, that their founding father, Ube, came to their present abode from Lejja and that Amube Eguru's original name was Amube Lejja. There was an ancient shrine in Amube called onu ube Lejja, said to have been brought by Ube from Lejja.[83] The shrine used to be under the custody of onyishi Amube, the traditional head of the community, until it was destroyed in the late 1970s during the construction of the Enugu - Makurdi highway. Genealogies obtained at Amube Eguru put Ube's arrival at c.1571 - 1601.

The Orba community is made up of seven village groups. Significantly, only the Amala Orba village group, consisting of Amube Eguru, Amaoba and Agbowo villages, had iron workers. Amube Eguru and Amaoba have a fraternal relationsip, the latter having been founded by emigrants from the former, c.1771-1801. Amaobawere smelting specialists while Amube Eguru specialised in smithing. Agbowo appears to have been an eighteenth century immigrant group from Igala. They came to Amala Orba under the leadership of one Asadu Eguru. About this group more will be discussed in the appropriate chronological order.

It thus seems probable that iron technology was introduced in Orba from Lejja. Given the primacy of the Nsukka area in the development of the technology in Igboland, it is inviting to speculate that the date for

iron in Lejja may go back centuries before the founding of the present Lejja community, possibly before Igbo-ukwu. As noted earlier, Frederick Anozie and Keith Ray, who have been studying the Lejja artifacts, suspect that iron was worked in the community from early in the first millennium B.C. to five hundred years ago.

Other centres identified during this phase of the technology in the Nsukka area are Aku and Eha Alumona. Aku appears to have had the most thriving iron industry among the Nsukka Igbo from the sixteenth century to the nineteenth. The genealogies could only be traced to c.1573-1603, when Ushene Agulu Eha came from Eha Alumona and settled there.[84] Ushene Eha was a smith as well as a physician, dibia.

Long before Ushene's arrival, Aku had been inhabited by the Enu Enu and Nua groups. These earlier inhabitants were smiths as well as farmers. Among them, the Amogwu lineage is regarded as the original smiths. They alone enjoy the special privilege of producing the iron staff -- arua or ntukpa -- used by ritual priests and ozo title holders in Aku. From the Ushene tradition and genealogy, it can be inferred that iron was known in Aku before c.1573-1603.

But the provenance and antiquity of iron in Aku before Ushene remain unclear. The pre-Ushene traditions

claim independent origin. It seems more likely, however, that the knowledge may have originally come from Lejja, only about twelve kilometres north of Aku. Aku seems to have had two smelting traditions. The first produced slag blocks identical in shape and size to those found in Lejja. The second belongs to the Umundu shaft furnace type, which seems to have displaced the earlier, bowl furnace.

The shaft furnace may have been introduced in Aku by Ushene Eha. As Anozie and Ray suggest, the smelting technique using a shaft furnace from which the slag was removed after firing and spread in a heap around the furnace, "constitutes a tradition in marked contrast to that discovered at Lejja, and quite possibly later in date than the latter".[85] The heap spread around the furnace cumulatively was to act as a wind-break during subsequent firing. These smelting techniques are discussed in detail in the next chapter.

As for the origin of iron in Eha Alumona from where Ushene Eha migrated to Aku, there is no certainty. The traditions of the people insist that the technology was bestowed on Eze Awuwa, their founding father, by Chukwu Okike, the Great Creator. Their genealogies suggest the community was founded around c.1544-1574.[86] However, given the date of Ushene's emigration to Aku, one would

expect iron to have been worked in Eha Alumona long before.

II. Iron Technology Goes to Udi

The Nsukka area was probably the source of the diffusion of iron technology to most parts of the more southerly Igbo communities. Not surprisingly, the Udi area immediately to the south of Nsukka was among the early recipients. Two Udi communities with Agulu, "blacksmith", prefixed to their names were among the recipients. These were Agulu Umana and Agulu Uwani. A third, Agulu Enugu, was an off-shoot of Agulu Uwani in the late eighteenth century.

Agulu Umana has two origin traditions of iron technology.[87] One claims the knowledge was conferred on their ancestor, Anieyeagu, c.1574-1604 by Chukwu. The second attributes the advent of the technology to Nri itinerant smiths. Agulu Uwani traditions also claim independent origin of the technology, though their genealogies would put this at around 1598-1628. Since the Nri people are not known to have ever been iron workers, the tradition deriving the technology from them is hard to believe.

For reasons discussed below, iron came to Udi probably from Aku, and most likely earlier than the genealogical dates suggest. Some ritual symbolisms of Udi


2
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1.1
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45
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28
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No 2)

smiths are identical with those found at Aku. For instance, the smiths' deity in Aku is called Chikere Eguru, literally, "the spirit force that created the smith".[88] The deity's shrine is called Onu chikere eguru; onu meaning, fountain. Whenever an Aku smith went on an occupational tour, he took with him an emblematic representation of the deity.

The principal deity of Udi smiths is chikelu Agulu, which has the same meaning as Chikere Eguru. In the Nsukka dialect, the letters 'e' and 'r' are employed where the more southerly Igbo would emply 'a' and 'l'. Thus, Eguru in the Nsukka dialect becomes Agulu in the Udi and Awka dialects, while Chikere becomes Chikelu. Some Udi traditions relate that in the remote past, Udi smiths used to make annual pilgrimages to a place called Chikelu Agulu to sacrifice to the god of iron.[89] The tradition was later abandoned, but the celebrations are still held locally under a new name, oku otutu, "the anvil's fire". It is probable that it was to Aku, a short distance north of Udi, that the smiths made their annual pilgrimages. Apparently, the Udi smiths came to apply the name Chikelu Agulu to refer to the Aku community as well as to its iron deity.

Contact between Aku and Udi seems to go back into distant times,[90] Orie Aku market was a meeting point of

the north and the south. From the north came Idoma, Igala and Nsukka traders, bringing such commodities as cotton cloths, beads leather goods, livestock, salt, iron implements and natron, nnu akanwa. Awka, Nkanu, Nri and Udi traders from the south brought Okposi-Uburu salt, Akwete and Okigwe towels (akwa mmiri), elephant tusks and ivory bangles. Awka and Nri traders seem to have specialised in ivory-related trade.

Nri were also ritual specialists; Awka oracle agents and physicians. Aku were not only smiths but also perhaps the most enterprising traders among the Nsukka people. They travelled north to Idoma and Igala and south to Udi, Nkanu and possibly Awka. By the turn of the nineteenth century, they were travelling regularly to the famous Okposi-Uburu fairs. The enterprising spirit of Aku people is mirrored in a popular Nsukka adage that no market was too far for Aku traders to attend, no load too heavy for them to carry.91

Goods travel faster than the technology which produces them. It is, therefore, most likely that the Udi traders attending Orie Aku took home such iron products as hoes, matchets, diggers and needles. It was probably easy for Udi traders to attract Aku iron workers to their community, given the trade contact that already existed between the two communities. In the Igbo society --

ancient and modern -- the market place has always been a popular forum for disseminating news and exchanging ideas.

Quite apart from new commercial opportunities the new area may have held out to the smiths, the abundance of rich iron deposits there may have been a major attraction to the iron workers. The Udi range of hills and plateaux is known to contain extensive iron deposits.[92] In time, smelting became a major occupation of some communities in the Udi area, such a Okpogho near Oghe, Okwe, Umuaga and Uyukwe.[93]

It is significant that in Udi the Agulu group of villages were traditionally referred to as mbiam mbiam, "immigrants". But, as an Udi elder said, with sagacious introspection, "it is no use to offend these people by reminding them that they are not sons of the soil. It would look as if we were deriding them".[94] We can thus visualize itinerant Aku smith/smelters moving south to the Udi area and establishing a flourishing iron industry. The ready availability of iron ore in the area may have facilitated the process. The settlements which the immigrants subsequently established had Agulu -- blacksmith -- prefixed to their names, a lasting memorial to the profession of their founders.

III. Summary and Conclusion

There are two theories of origin of iron technology in West Africa -- the diffusionist and autochthonous theories. Neither of the theories provides a satisfactory answer to the origin problem. Until more archaeological evidence is uncovered, the issue will remain open. In the Igbo case, the present evidence, inadequate as it is, suggests diffusion from the region north of Igboland.

The iron centres identified during the first phase of the diffusion process are all in the northernmost part of Igboland. The centres were, without an exception, engaged not only in smelting but also in smithing. From the enormous amount of slag blocks found at Lejja, it seems probable that iron had been worked in that location generations before the ancestors of the present Lejja people arrived there.

Phase Two: Advent of Iron Technology in the Igbo Heartland, 1604 - 1706

If the Nsukka area was the cradle of iron technology in Igboland, the planting of this technology in the Udi area seems to have prepared the way for its penetration of the Igbo heartland. Developments originating outside the Igbo area helped to accelerate the process not just in the Igbo heartland but in other areas of Igboland.

## I. Diffusion of the Technology to Awka

In popular literature and imagination, Awka is the home of "the pioneer smelters and iron workers" of Igboland.[95] The Eri legend which assigns a crucial role to Awka smiths is generally used as evidence to lend support to this claim. Furthermore, historians, anthropologists and geographers point to the self-evident proficiency of Awka smiths and their seeming ubiquity in parts of southern Nigeria in the nineteenth and early twentieth centuries. The proximity of Awka town to Igbo-ukwu has encouraged the popular notion that Awka smiths were probably the fabricators of the Igbo-ukwu artifacts.[96] Unchallenged repetition, compounded by uncritical acceptance, of these claims has made further inquiries into these matters seem futile.

Because of the central place accorded to Awka in the literature about the origin of iron technology in Igboland, it should be helpful to go into some detail concerning its advent in Awka. This is necessary in order to separate the myth from the fact. Awka is a northern Igbo community, currently the headquarters of Awka Local Government of Anambra State. It lies about thirty kilometres southwest of Udi. Awka is thought to be among the early settlements of the Igbo. It is not certain, though, when the town was founded. One estimate puts this

in the first millennium A.D.[97]

The town is composed of thirty-three patrilineages which are grouped into two broad sections -- Ezi and Ifite. The two sections contain seven villages; four of them in Ifite and three in Ezi. The Ifite villages are Ayom na Okpala, Nkwele, Amachala and Ifite. The Ezi villages are Amikwo, Ezi Oka and Agulu. Of the component units of Awka, only the Agulu village and Umudioka lineage in Ezi Oka village can recount the traditions of their foundation. The inability of the others do the same seems to lend credence to the theory of Awka being among the early settlements in Igboland. The ability of the two to recollect theirs may reflect their less ancient origins.

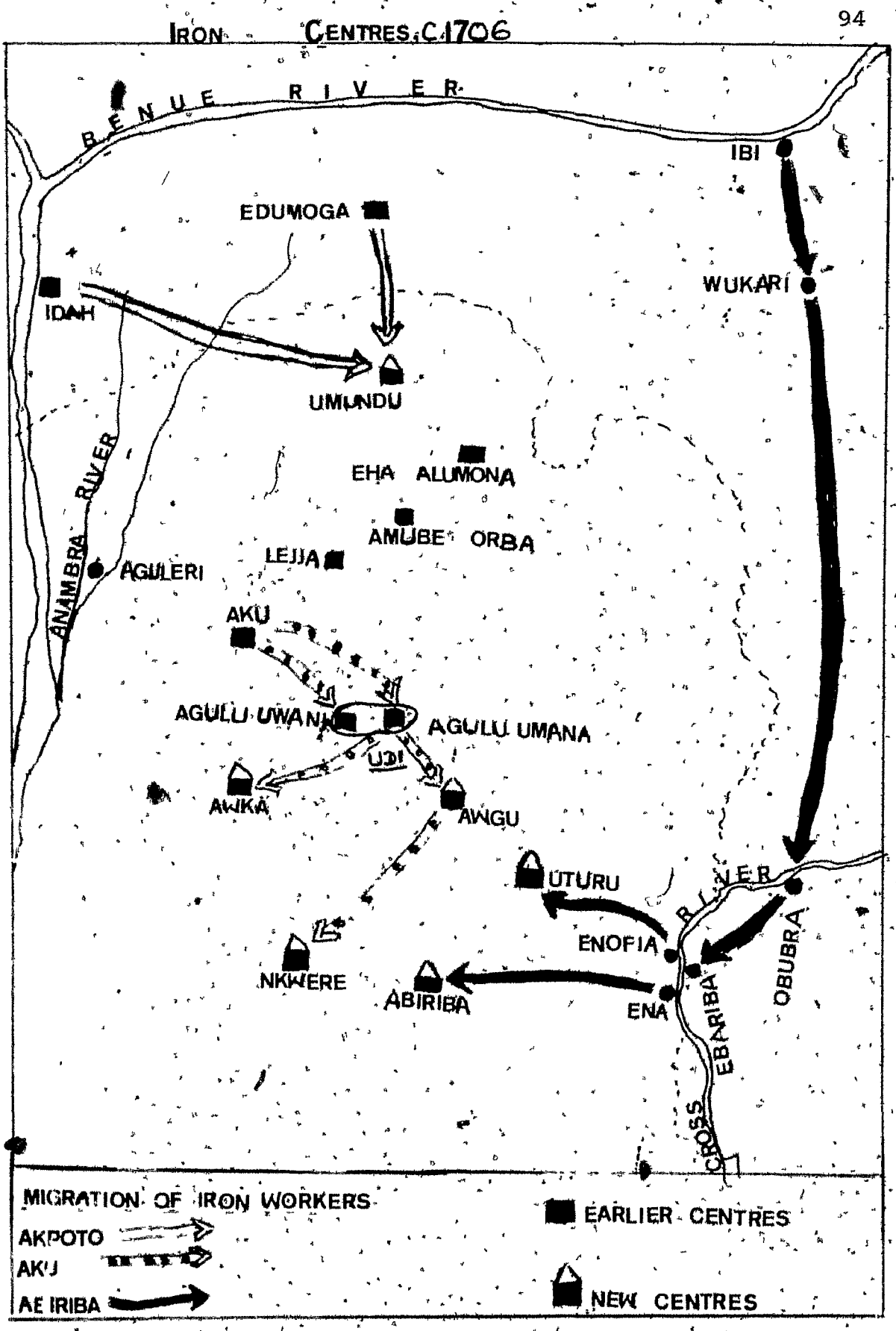
Umudioka was founded by one Ichide from Neni, a village community located about sixteen kilometres southwest of Awka.[98] He was a skillful wood carver and body scarificator. His dexterity in these arts earned him the honorific, nwadioka, 'artist par excellence'. Traditions trace the founding of Agulu village to Nnebuzo, an itinerant smith of Agulu Umana origin, Udi.[99] Initially, Nnebuzo settled at Norgu, a village immediately to the west of Awka and very close to Amikwo. He married an Amikwo lady named Ikwodiaku. Ikwodiaku bore a son named Agulu.

Nnebuzo attempted to take the Amahwulu title for his

son but his hosts rebuffed him. This title would have conferred full citizenship on Agulu. Nnebuzo then turned to his Amikwo in-laws who permitted him to perform the title ceremonies for Agulu, his son. Agulu Nnebuzo subsequently became a fully enfranchised citizen of Awka. The Nnebuzo family was then given a piece of land in Amikwo to settle. Nnebuzo apparently died in the new location.100

Agulu relocated in the present Umubele lineage in Agulu village. Like his father, Agulu became a proficient smith. He had four wives from whom he had seven sons and a daughter, Uzuocha. The sons were Ogbu, Belu, Ike, Anaga, Oruka, Enechi and Jagwo. From these sons emerged the seven lineages which compose the Agulu village: Umuogbu, Umubele, Umuike, Umuanaga, Umuoruka, Umuenechi and Umuagajwo (umu means 'children of').

The Nnebuzo tradition appears to be a historical record. It is well articulated in Awka in general and Agulu Awka in particular. If the tradition emanated from Udi, there might have been grounds to suspect its veracity. But this is not the case. The tradition is virtually non-existent in Agulu Umana, except in a very oblique and truncated form. The absence of the tradition in Udi should not be surprising, given that the import of Nnebuzo's activity was felt in Awka, not in his own birth


IRON CENTRES, C.1706
BENUE RIVER
IBI
EDUMOGA
WUKARI
IDAH
UMUNDU
EHA ALUMONA
AMUBE ORBA
ANAMBRA RIVER
LEJJA
AGULERI
AKU
AGULU UWANI
AGULU UMANA
UDI
AWKA
AWGU
UTURU
CROSS RIVER
ENOFIA
OBUBRA
NKWERE
ABIRIBA
ENA
EBARIBA
MIGRATION OF IRON WORKERS
AKPOTO
AKU
AE IRIBA
EARLIER CENTRES
NEW CENTRES

place, Agulu Umana.

Inexplicit evidence lends credence to the Udi origin of iron technology in Awka. The smiths deity in Awka is called Akputakpu. In Udi, there is a hill called Ugwu Akputakpu. This was an important source of iron ore for Udi smelters, upon whom the Awka smiths depended for their bloom.[101] Akputakpu seems to be a descriptive Igbo word contracted from the expression akpu taa akpu, meaning "a hard thing hardened over and over again". The expression is used to describe anything that is hard or problematic. Iron slag is ahuru in the local vernacular. In a ritual context, it is called akputakpu, a sacred object with potent mystical powers.

It was the practice of every Udi smith setting out on a professional journey to go with a piece of akputakpu wrapped in an ogirisi leaf (new-bouldra laevis). Ogiri is a live plant which in the traditional Igbo society was believed to possess protective charms and mystical powers.[102] The travelling smith buried the akputakpu at the entrance to his forge to protect him and friendly visitors to the forge from evil forces, and to attract customers.

It is reasonable to assume that Nnebuzo passed on this tradition to Agulu, his son. At the assembly ground of Umubele lineage -- descended from the second oldest son

of Agulu -- stands a hut built of cement and roofed with corrugated zinc. It houses the Akputakpu deity, and on one of the walls is inscribed a eulogy to the deity. The assembly ground was reportedly the spot where Agulu first set up his forge after relocating residence.

Research has not uncovered any tradition of iron-smelting in Awka, contrary to the assumption in the literature.[103] Initially, Awka smiths depended primarily on Udi smelters. Nnebuzo himself had to shuttle from time to time back to Udi, to obtain fresh supplies of bloom whenever his stock ran out. Later, the Udi supply was supplemented by the products of Nsukka, Awgu, Uturu and, probably, Abakaliki smelters, followed by imports from Europe.

In due course, trade in bloom was developed into a flourishing enterprise between Udi and Awka. Umudioka lineage were the specialist middlemen in this trade. It may be recalled that this lineage descended from Ichide Nwadioka, the artist, who, like Nnebuzo, was an immigrant to Awka. The Umudioka men bought copper rods from Nkwere, Orlu, Nri, Arochukwu and possibly Igala traders and sold these to the Udi smiths. The smiths turned the copper rods into various objects of ritual and prestige such as bells, anklets, wristlets and leg coils. In Udi, the traders bought bloom and other metal products which they

took back to Awka.

The fore-going discussion evidently contradicts the popular opinion that Awka was the cradle of iron technology in Igboland. The logical question is whether or not Awka smiths could have been the fabricators of the Igbo-ukwu artifacts of the ninth century. It is unfortunate that no archaeological excavation has been carried out in Awka which could provide radio-carbon dates relating to the age of the industry there. An anthropologist has put the arrival of Nnebuzo at Awka in the eighth century[104] -- a daring oral record of about forty generations! However, the same researcher seems to betray his lack of confidence in his own record as he refers to it as a "crude extrapolation" and "this unscientific method".[105]

The Nnebuzo tradition is fascinating because of its lack of those features which tend to characterise traditions going back into the dim past: inarticulate details and substantial legendary, mythical elements as well as attenuations in narrative versions. As far as the extant evidence goes, the tradition was first written down, though not in detail, in 1932 by M.D.W. Jeffreys[106] -- more than a millennium after Igbo-ukwu.

The seeming freshness and rationality of the narrative tradition inclines one to wonder whether it

dates as far back as the ninth century. The longest genealogy collected by the present writer at Agulu Awka would place Nnebuzo's arrival at c.1604 - 1634; another, c.1612 - 1642,[107] a variation of no significance. This seems to be positive evidence and in tune with genealogical data from other iron working communities in the Igbo area in general.

There are other considerations which would suggest that the Nnebuzo tradition may be less ancient than some scholars may be disposed to accept. First, it is instructive that, as the traditions have it, Agulu was the last village to be founded in Awka. It is possible, but it would be surprising if all the seven villages had been founded by the ninth century. This would imply a situation too static to be credible. One would imagine, of course, that Awka people had been using iron tools before they became producers as well.

Second, the absence of a smelting tradition in Awka must have constituted a serious obstacle to the early inception of iron technology there. Finally, it is significant that Awka oracle agents and physicians had been engaged in distant travels long before the advent of iron in the community from Udi. Ukwu I. Ukwu writes:

> The prestige of the Awka people in Iboland derived from the repute of their 'Agbala' deity and from their skill as physicians. They travelled first and foremost as priests,

> diviners and doctors. The contacts made in those capacities were useful in establishing markets for their wares and services as skilled craftsmen.[108]

Until sufficient archaeological, ethnographic and historical research has been conducted in the northern Igbo area, it will remain difficult to say who produced the Igbo-ukwu artifacts. No research has hitherto been conducted on the history of iron technology in the Udi area specifically or Igboland in general. Those writers who have dabbled into one aspect of the subject or the other have focused on Awka.[109] Certainly, Awka's achievement in metal-craft in southern Nigeria merits the attention it has received. However that may be, Awka was also fortunate in being the residence of Reverend Basden, one of the longest serving Christian missionaries in Igboland. His two magna opera -- Among the Ibos of Nigeria (1921) and Niger Ibos (1938) -- have played no small part in advertising Awka's craftsmanship to the wider world.[110]

In relation to the other Igbo practitioners of the craft, writers have tended inadvertently to paint a larger-than-life portrait of Awka, as far as the beginnings of iron technology in the Igbo area is concerned. The consequence is that the roles of the other participating communities in the historical development of the technology have been dwarfed or even eclipsed. In the

same way, the earlier discovery and advertisement of the Benin and Ife bronzes tended to pervert and prejudice proper appreciation and recognition of the excellence and antiquity of the Igbo-ukwu bronzes.[111]

There is no doubt that at the end of the nineteenth century, Awka held a leading position in the metal industry of Igboland. But scholars err in assuming that that situation dated to the beginning of the technology in Igboland. Such a theory was consistent with the early static view of Africa: that which existed in the nineteenth century had always been; change only came with the European intrusion.

In the distant past, an intimate relationship seems to have existed between the Nri ritualists and the Udi smiths. The relationship is reminiscent of that forged in later times between these ritualists and Awka smiths. In performing their roles as ritualists, removers of abominations and conferers of titles, the Nri people travelled extensively and unmolested.[112] Agulu Umana traditions claim that their town's original name was Agulu Nshi (Nri), and was called so because, like the Nri people, Agulu Umana people travelled extensively and unmolested in parts of Igboland and even beyond to Igala, Niger delta and West Niger Igboland.[113]

Another tradition has it that the Agulu people were

of Nri origin, and came to Agulu Umana in two groups, one group as medicine men, and the other as smiths. Smithing became so lucrative, the medicine men abandoned their profession for smithing or relegated it to a secondary position. The veracity of this tradition is hard to ascertain. Nri were never metal workers, as far as present evidence goes. Two hypotheses may be suggested.

First, Aku iron workers and Nri ritualists may have travelled together and settled at Agulu Umana. Later, the latter abandoned or neglected their primary profession in favour of smithing. A close, symbiotic relationship always existed between Nri men and iron workers. The former relied on the latter for the ritual and title regalia they required to perform their functions. Second, Nri ritual experts probably frequented Agulu Umana to commission or buy the title and ritual items from the smiths. Some may have settled, and later took to smithing.

Whatever the truth may be, some mutual inter-relationship seems to have existed between Nri and Agulu Umana. Agulu Umana traditions say that the smiths usually cooperated with Nri men in ritual absolutions. For instance, to cool or purify a 'hot', that is, defiled place, Nri ritualists first cleansed it with aroke, a special species of fowl. Thereafter, Agulu Umana smiths

neutralised any charms or taboos at the place by performing symbolic smithing there.[114]

Benedict Akunne is the Curator of Odinani Museum, devoted to the recovery and preservation of Nri history. He has positively stated that Udi smiths did make bronze items for Eze Nri, the spiritual potentate of Nri people.[115] This contradicts Neaher, who opined that "Awka smiths are traditionally the exclusive fabricators of the Nri priests' and chiefs' iron ceremonial staffs and other items."[116]

What probably happened might be that before the emergence of Awka as a major smithing centre, Udi smiths had been the primary suppliers of ritual and ceremonial metal products to the Nri court and priests. Later, Awka began to supply Nri with these items as well, and finally, went on to monopolise this role, thanks, as we shall see, to their uncompromising business tactics.[117] The Awka - Nri commercial relations seem to have ante-dated the advent of iron in Awka, since Awka traders before then had been important suppliers of ivory to the Nri court and priests. The history of iron technology in Awka certainly has roots which penetrate deep in Igbo history. But as Neaher aptly observes, Awka iron workers emerge "at the end of a long line of artists and artisans perhaps stretching back to the days of Igbo-ukwu."[118]

Our analysis of the advent of iron in Awka provokes a crucial question. How does the Eri legend as recorded by Jeffreys in 1932 fit into our construct? According to the legend, Eri and his wife were sent down from the sky by Chukwu, the Igbo supreme god.[119] They landed at Aguleri and found that, except for the anthill on which they had alighted, the whole earth was a morass. Following Eri's complaints, Chukwu sent an Awka smith to dry up the earth with his bellows. Thereafter, the land became habitable. The legend credits Eri with the introduction of the Igbo market days and of saving his people from starvation through the introduction of yams and cocoyams for which act he had to sacrifice his son and daughter.

It is little use to stress the obvious: the above legend cannot be taken as an historical record. Quite correctly, Afigbo observes:

> No historian in his right mind would regard it as an account of the origin of the Umunri or Umueri clans, or of the Igbo as a whole.[120]

However this may be, as it is the case with most legends, beneath its exterior lies some historical lesson. The legend seems to be aimed at assigning divine origins to Eze Nri's powers. As far as present evidence goes, the powers of Eze Nri over parts of Igboland in precolonial times seem to have derived from spiritual hegemony, not military or economic strength. However, it would be

surprising, though scholars tend to assume so, that Eze Nri's powers were from the beginning based on mystique. The Nri kingship probably dates to the Igbo-ukwu period, or even earlier. From the role assigned to the Awka smith in the creation legend, smithing in Awka should be many centuries earlier than we have allowed in our analysis.

The basic problem in dealing with the Nri origin tradition is that no historian, structuralist or symbolist, has turned his attention to interpreting it. In some African traditions, 'above', which would be interpreted as the 'sky' or the 'north' is contrasted with the 'earth', 'the present habitat', and 'below', the underground or 'south'. It is uncertain if the Nri tradition of origin has been accurately recorded in the Igbo language, and therefore, it is difficult to analyse it carefully.

But a more rational interpretation might merely mean that Eri and his group came from the territory north of Igboland to the present area occupied by the Umueri clans, or northern Igboland. This interpretation is in accord with the findings of Onwuejeogwu, Isichei and C.M. Idigo.[121] For instance, Onwuejeogwu states that the polity from which Umueri originated was located in the upper Anambra valley.[122] According to an Nri elder, "when Eri came down the Anambra [river] he set about to unify

the surrounding settlements".[123]

Eri's departure point was, in fact, Idah, the capital of the Igala kingdom. Eri or Eri Eggarah was an Idah king of the Akpoto dynasty. He was ousted from the throne by a Bini prince, Aji Attah, some time before c.1507.[124] Aji Attah was the brother of Esigie, both being sons of Oba Ozolua of Benin, who died c. 1507. Aji Attah had been dispatched by his father to conquer Idah, which he did. From Idah, he attacked Benin in an attempt to oust his brother, Esigie, who had succeeded Oba Ozolua to the throne.[125] The Benin - Idah war, 1515 - 1516, was recorded by Duarte Pires, a Portuguese missionary in the Benin court during Oba Esigie's reign.[126]

> Meanwhile, following his overthrow,
>
> Eggara Eri migrated inland away from the Niger, and eventually resettled south of the Benue valley ...[127]

Eri's final destination was Aguleri, a settlement located at the Anambra - Adada River confluence in the Anambra valley. Idigo is thus correct in stating that Eri came from Igala to Aguleri about four hundred years ago.[128] Onwuejeogwu's dating of Eri to c.948 A.D. is simply out of the question.[129]

It seems that Eri arrived in the Anambra valley when it was in turmoil, and the people disunited. There was a leadership vacuum and a crop failure, or perhaps a famine.

> Before he [Eri] came to the Anambra, the people were living in scattered huts. They had no kings ... When he came there was no food.[130]

The cause of the turmoil and food shortage is not stated. The tradition that Eri had to stand on an anthill, because the entire area was a morass suggests that excessive rainfall and flooding had caused the crops to fail. This was, interestingly enough, the period of 'wet prosperity'[131] in West Africa. Associating wet or above normal rainfall with prosperity is a perspective derived from the Sahel. Abundant rainfall in the Sahel might create too much rainfall in the tropical forests of coastal West Africa. As a confluence and lowland settlement, Aguleri was probably susceptible to flooding. On the other hand, the crediting of Eri with the introduction of yam and the Igbo market days seems to suggest that the tradition, or part of it, predated Eri. The leadership vacuum may have resulted from the people's rejection of their rulers who had failed in the crucial function of ensuring a plentiful agricultural harvest.

What appears to have happened might be this. Eri arrived in the Aguleri area and found the inhabitants divided against themselves, and facing a political cum ecological crisis. In the arrival of Eri, the strife-torn population found a 'neutral' external mediator. Reliance on external agencies in resolving intractable domestic

crises was not uncommon in precolonial Africa. Eri did not come to the Anambra valley by conquest. The conditions were propitious for the establishing a new dynasty -- without a fight. His "impressive array of royal regalia"[132] may have helped to make him more readily acceptable to the population historically used to a monarchical system with its own pageant of royal regalia.

Shaw observed correctly that "the Eze Nri of Oreri wears a bronze pectoral mask of early sixteenth century Benin style".[133] He misinterpreted how this came about. The bronze pectoral mask was the major item in the paraphernalia of the Idah monarchy.[134] The Igbo-ukwu artifacts included a pectoral mask, which suggests that this item was not introduced for the first time in the Anambra basin in the sixteenth century. Eri's was, apparently of a different genre, dated by C.K. Murray on stylistic and historical grounds to the sixteenth century.[135]

It is pertinent to emphasise that it is not the intention of this writer to infer that the Nri monarchy originated around 1500. The archaeological record shows a well established royal court in the ninth century, suggesting an even earlier date -- possibly much earlier -- for its foundation. What the evidence does point to is that Eri founded a new dynasty in an area where

monarchical institutions had been the rule. From before the ninth to the sixteenth century, one would expect more than one dynastic change in Nri. However, given the lack of any conflict traditions or even symbols of them, one may surmise that when Eri arrived, the former dynasty had collapsed, perhaps centuries earlier.

It was only natural that the new dynasty would seek to legitimise itself by incorporating mythic elements from the traditions of the earlier ruling houses into its own. Nor can one assume that because the Eri dynasty was primarily spiritual and ritualistic that all the earlier dynasties which may have ruled had also been. This is a view far too static to be readily acceptable. The interweaving of earlier dynastic traditions into those of later ones is common in precolonial African history. It was designed to confer legitimacy and antiquity to the new comers. An accumulated repertoire of pre-Eri traditions would be woven into the new maze, producing, in Leonard's words "a maze within a maze".[136]

II. Advent of the Technology in Nkwere

The tradition of origin of iron technology in Nkwere is short and simple. But interpreting it is more difficult than dealing with the other traditions. It is, therefore, important to stress that the interpretation

made below is tentative and speculative. Nkwere have no clear traditions suggesting external origin of iron in the community. It is said that the technology is indigenous, being an endowment from Chukwu. Some say the gift was made to Eshi, the putative ancestor of the Nkwere people; some insist it was made to Nkwere, Eshi's grandson.[137] What seems probable is that the technology was established in Nkwere in the generations between Eshi and Nkwere.

Because Nkwere has no convincing smelting tradition, it is hard to imagine that the technology could have developed indigenously. Udi seems to be the likely origin of the technology in Nkwere. The smiths' deity in Nkwere was Ogadazu. In Agulu Uwani, Udi, Ogadazu was the deity responsible for protecting itinerant smiths from harm in their places of sojourn.[138] It seems likely that itinerant Udi smiths who may have established themselves in Nkwere introduced the technology and its associated deity. Agulu Uwani traditions indicate early itineration of their smiths first to the Awgu territory, and thence to the Nkwere area. Awgu is one of the smelting centres of undetermined antiquity in Igboland. Nkwere's founder genealogy, the best preserved of the genealogies collected in the field by the present writer, puts Eshi at c.1559 - 1589 and Nkwere at around 1619 - 1649.[139]

These dates and those obtained at Awka suggest that

the technology came to the two communities around the same period of time. It is, therefore, inviting to suspect that the impulses for these developments derived ultimately from a common source. The century beginning c.1570 - 1600 was marked by dry weather and significant demographic movements north and south of the Benue region. The Agbor diaspora to Aboh and Onitsha began around 1570 - 1600; the Agatu, in c.1630 - 1660, while the Jukun were colonising the Benue valley by c.1660 - 1690.[140]

The seventeenth century which had been ushered in by the collapse of the Songhai pax, inaugurated a major shift of centres of political and commercial gravity not only eastwards into Hausaland but also to the southern zone. This development was partly related to the growing Afro-European trading activity on the Atlantic seaboard, which is discussed later. These events may help to explain the southward movement of iron technology during the period.

III. External Sources of Diffusion

The spread of the technology taking place within Igboland during this phase was supplemented by infusions from outside Igboland. This was evident in Nsukka, Uturu and Abiriba. Umundu in Nsukka is one of the communities which have clear traditions of iron diffusion from outside Igboland. The Umuashane lineage traces the advent of smithing to Ashane Ogiri, an Igala princess married to an

Umundu man.[141] Ashane had two sons, Inegedu and Ikpa. Their half-brothers were oppressive to them, denying them access to the economic resources of their father, such as oil palm. In desperation, Ashane travelled to Idah and pleaded with her father, Ogiri Eguru, to send some craftsmen to teach her sons some craft by which they could earn their living. Ogiri Eguru sent some smiths to teach his grandsons smithing. Ever since, smithing has been the special preserve of Umuashane, that is, descendants of Ashane.

Umuashane genealogies place this tradition in the second quarter of the seventeenth century, one in c.1629 - 1659 and another, c.1649 - 1679. Sargent indicates that a certain 'Attah' Ogiri of the generation c.1627-1657 was chosen king of the Agatu polity according to an agreed dynastic rotational principle, involving the Alago, the Idoma and the Igala components of the kingdom.[142] Attah Ogiri was from the Alago group. He died before his formal installation. A disagreement arose between the Alago on the one hand and the Idoma and Igala on the other. The Alago had tried to present another candidate for the kingship; the Idoma and Igala insisted that the Alago had had their turn. There followed a considerable upheaval and the Alago pulled out as a result. Probably the smiths who came to Umundu were of the Alago group fleeing from

the turmoil.

Another lineage in Umundu called Umuegalika specialised in smelting; it did not smith. The founder of the lineage was Edumoga, who introduced smelting to Umundu, c.1631 - 1661.[143] Although the tradition is silent on the origin of Edumoga, it is logical to speculate that he was of the Edumoga clan in Idoma. Edumoga was a major smelting centre in precolonial times. In his ethnological report on the Akpoto in 1925, T.M. MacLeod stated that "iron was obtained locally and smelted in furnaces which can be seen in Edumoga, at Ebila and probably elsewhere ... "[144] The Edumoga people appear to have been professional smelters. In the Otupkpa clan, immediately north of Nsukka, there were, up to the 1920s, "iron smelting kilns scattered throughout the area ... the result of operations carried out by the Edumoga, who came to Otukpa at their invitation and smelted iron on payment".[145]

We noted earlier that the smelting sites excavated at Umundu yielded artifacts whose radio-carbon dates ranged from 1625 75 A.D. to 1925. The commencement date, interestingly enough, tallies closely with the genealogical dates of the Ashahe and the Edumoga traditions. It is interesting that smithing and smelting appear to have been introduced in Umundu about the same

time. The arrival of the Igala smiths may have attracted the Edumoga smelters too.

Iron technology came to Uturu around 1613 - 1643. The original home of the Uturu iron workers was in the eastern district of the Cross River. From there, the group, led by Ena, crossed that river and settled at Enofia (Ena - Ofia) on the western bank of the river.[146] On leaving Enofia, the group broke up into two. One segment went on westwards to Uturu and the other to Enuda, Abiriba, forty kilometres southeast of Uturu and about forty-five east of the Cross River.

The Uturu tradition is corroborated broadly by traditions recorded at Abiriba. The original home of the Abiriba people was possibly in the Benue valley. Their traditions speak of migrations which involved sojourns at Ibi, Awe, and Wukari in the Benue valley and Akpan (Obubra) on the Cross River bank.[147] Led by Ebariba, the migrants subsequently crossed the Cross River and settled temporarily at Ena on the western bank of that river. Later, the group left to the present location of Abiriba, c.1676-1706, after a short stay at Ohafia.

Significantly, the Cross River settlements mentioned in the Uturu and Abiriba traditions cluster within a small area on the west bank of the Cross River. Within this cluster is a settlement called Ebariba. Its connection

TABLE THREE

ESTABLISHED IRON WORKING CENTRES

Phase One

| Centre | Category | | Foundation Date | Founder/Originated from |
|---|---|---|---|---|
| | Smelting | Smithing | | |
| Lejja | Yes | Yes | Before c.1542-74 | Ugwuele/Abi |
| Eha Alumona | Yes | Yes | | Eze Awa/? |
| Aku | Yes | Yes | | Ugwuoke/Lejja |
| Amubo Orba | Yes | Yes | Before c.1571-1604 | Ube/Lejja |
| Agulu Umana | Yes | Yes | | Anieyeagu/Aku |

Phase Two

| | | | | |
|---|---|---|---|---|
| Agulu Uwani | Yes | Yes | | Oya Oduba/Aku |
| Awka | Nil | Yes | c.1598-1649 | Nnebuzo/Agulu Umana |
| Uturu | Yes | Yes | | Eha/Cross River area |
| Nkwere | Nil | Yes | | Nkwere/Udi (?) |
| Umuahaha | Nil | Yes | c.1629-69 | Ogiri Eguru/ Igala |
| Umuegalika | Yes | Nil | | Edumoga/Idoma |
| Abiriba | Yes | Yes | c.1676-1706 | Ebariba/Benue Valley |

with the Ebariba-led group is yet to be established, but it would be surprising if it was not founded by the group. The cluster of settlements lies on what one imagines to have been the migration path of the Abiriba group.

The Uturu and Abiriba immigrants had probably been iron workers before settling in their present locations. This would explain their moving away from the Cross River to locations where iron ore was easily available. Uturu was known more as a smelting than a smithing centre. The Abiriba people had a smelting manufactory located between their settlement and the Igbere group to the west.

Summary

During phases one and two, twelve iron centres are identified. Eight or approximately 67% of these are in the northern third or so of Igboland, that is from Awka to the Nsukka district. The remaining ones are located within the north-middle belt of Igboland. Except for Awka and Nkwere, all the centres engaged in smelting as well as smithing. In breaking this rule, Awka and Nkwere preempted the pattern of diffusion that was to emerge in the next phase, that is, the availability of iron ore for smelting was no longer a precondition for establishing a smithing centre. The primary reason for this, as will be shown later, was the increasing imports of iron bars from Europe.

The establishment of the new dynasty in Nri and the villages of Lejja and Eha Alumona take place in the early sixteenth century indicating a movement from the north of considerable dimensions. This movement seems very clearly

to be associated with push factors in the Benue valley. Thereafter, for a century and a half or until the late seventeenth century, the movement southward of iron workers is almost continuous and is connected to pull factors along the Atlantic coast.

IV. The Tertiary Phase, c.1708 - 1900

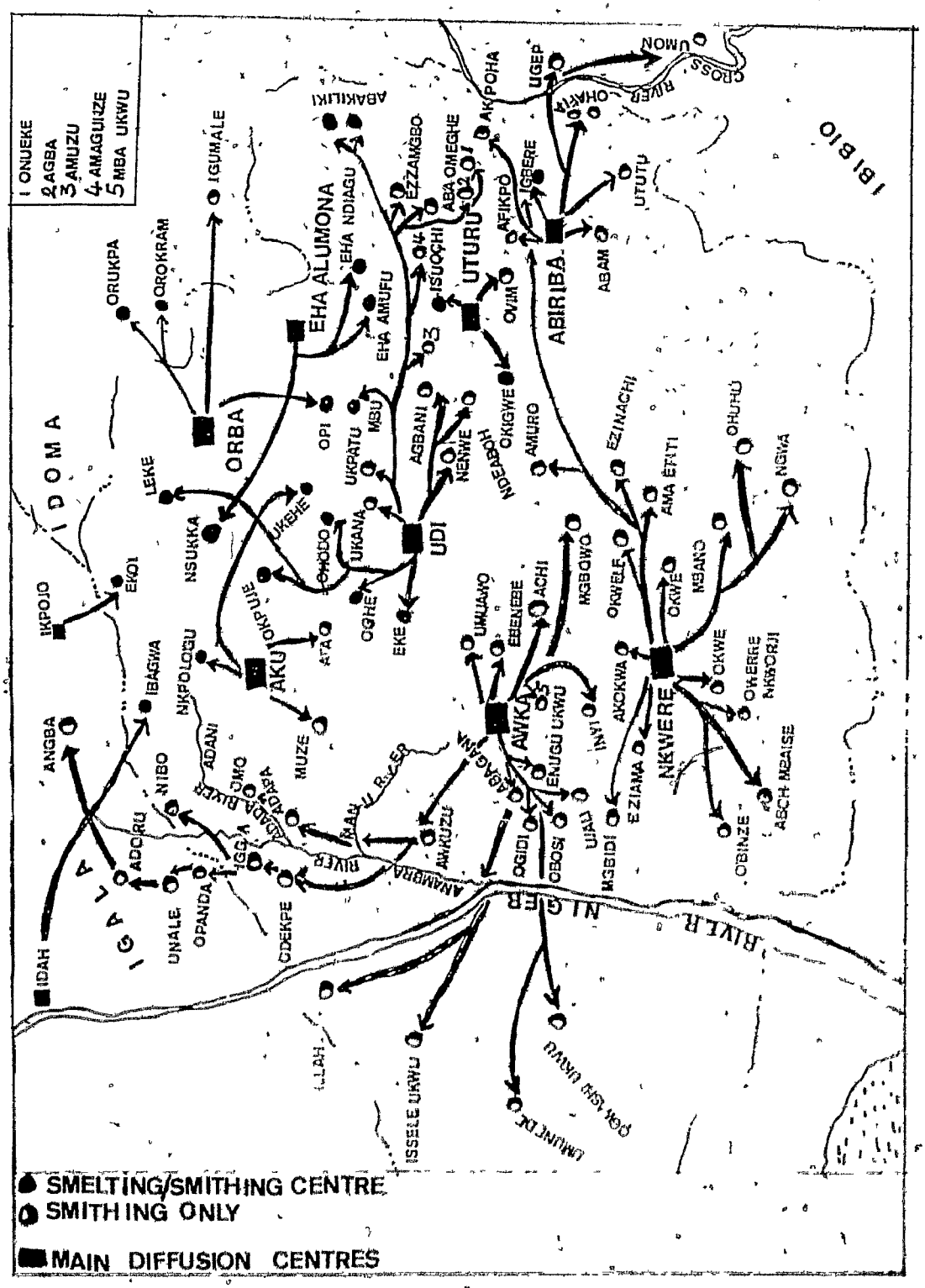
The centres established during the first two phases formed the skeletal grid of the iron centres in Igboland. They provided the take-off pad for the spread of the technology more widely in Igboland in particular and in the neighbouring territories in general. The majority of the new centres were involved in smithing only, thanks to the import of unfabricated metals from Europe which supplemented local production.

As indicated earlier, among the Nsukka iron workers, particularly the smiths, those from Aku appear to have been the most enterprising. They were probably instrumental in the establishment of the industry in Ukehe and Nkpologu during the period, c.1708-1738, and in Muze and Afa towards the end of that century.[148] Eha Alumona founded Eha-Ndiagu around 1712 -1742 primarily to supply bloom to the smiths in the parent village.[149]

Apparently, after a long period of exploiting the

MAP FOUR

Migration of Iron Workers, c. 1708 - 1900



nearby haematite and wood fuel, the Eha Alumona iron workers had exhausted these resources. It must have become progressively imperative to go further afield to procure them. In the circumstance, it made logistical and economic sense to establish a permanent settlement in an area where these resources were still abundant. With an assured supply of bloom, the Eha Alumona smiths were in a position to undertake tours to the neighbouring communities. In the process, they introduced the technology in Nsúkka and Opi towns.

Eha Alumona traditions also claim to have introduced the technology in Eha Amufu, a village group situated to the southeast. Amube Orba makes the same claim. However, ancient ties between Eha Alumona and Eha Amufu may have given Eha Alumona a head start over Amube Eguru. Outside the Nsukka area, Amube traditions indicate that their smiths introduced the technology in the Idoma border villages of Orokam and Orukpa, perhaps around c.1785-1815.[150] Umundu smiths were probably responsible for introducing the technology in Imilike, and Igumale in Idoma.[151]

To these internal developments was added further impetus from Igala. Umueguru lineage in Ibagwa Aka traces the orgin of their iron industry to an immigrant Idah smith called Itodo Dioka.[152] The origin name of Umueguru

is said to be Umuitodo, 'children or descendants of Itodo', 'Umueguru' (desendants of a smith) being their professional name. Itodo's speciality was the production of royal staffs, okaka, and title emblems; he could not produce farm implements. Later on, Awka smiths came and established in the community and started to produce those items Itodo could not produce.

The tradition may be interpreted to reveal a conjunction of two iron traditions, the earlier being Igala in origin, the latter Igbo. Itodo seems to be an Igala name while Dioka, meaning 'a mastercraftsman', apparently his praise-name, is Igbo. From his speciality, one suspects that Itodo probably had been a producer for the royal court at Idah. In Igala, the onu ayija or Ajeli, the royal smiths, belonged to the Attah's royal counsellors, the Igala Mela.[153] The Ayija clan was based in Ibaji in the southwestern extreme of the Igala kingdom, having a common border with Nsukka.

Umueguru genealogy would place Itodo's arrival in Ibagwa Aka c.1743-1773. Sargent dates a certain Atah Igala named Itodo Aduga to 1765-1815.[154] Whether or not Itodo Dioka and Itodo Aduga, the Atah, were blood relatives is hard to establish. The contemporaneity of the two figures might imply some relationship. In any case, the fact that Itodo specialised in the production of

royal emblems and title regalia strongly suggests that he at least had a professional connection with the royal court.

In Ekoi, the traditions attribute the inception of iron to Asadu Eguru, who is said to have come from Ikpojo in Igala, c.1739-1769.[155] Ikpojo, which means 'iron slag' in the Igala language, was a well known smelting centre in precolonial times. Asadu Eguru moved on to settle finally in Amube Eguru, c.1781-1811, after a sojourn in Ekoi. 'Asadu' sounds like 'Achadu', the title of the Igbo Prime Minister in Igala, an office created by the Kwararafan dynasty which was established in Idah, c.1687-1717.[156] Possibly, the actual name of the immigrant was not Asadu. This name may have been used as a clan identificaiton device or as a sign of prestige. If so, the immigrant was probably from one of the Igbo clans occupying the Ibaji district, which supported the Achadu.

Evidently, the immigrant went on to exercise considerable influence in his new abode. In c.1814-1844, Amube Eguru extended its name to Amube Eguru, Umu Asadu -- 'Amube, the smiths, the children of Asadu'.[157] That was not the first time the community had made a change in its name. It may be recalled that its original name had been Amube Lejja. Then around c.1636-1666, 'Lejja" was dropped and 'Eguru'(smith) substituted. The first change was made

probably for two reasons. It may have been intended to emphasise the growing expertise of the people in iron technology or its importance in the economy. Second, dropping 'Lejja' could help to wipe off the memories of the dire circumstances which forced their exodus from there.

Agulu Umana and Agulu Uwani in Udi, exploiting their ancient skills and contacts, were in the forefront in the diffusion of iron technology in Igboland before the mid-eighteenth century or so. Their traditions suggest two major directions of concentration: northwards into Nsukka district and eastwards. Agulu Umana smiths were probably responsible for introducing iron in Eke, Oghe and Ukana north of Udi between c.1704-1794. From this zone, they moved on into the Nsukka area where the traditions credit them with the inception of iron in Leke in Ekoi, Mbu and Okpuje.

It was to the east, however, that Agulu Umana smiths seem to have been most effective. Among the centres they claim to have established the technology were Nenwe, Abakaliki, Aba Omeghe, Agba, Onueke, Ezzamgbo and Amuzu. The origin of iron in Abakaliki, however, presents problems identical with those encountered at Lejja. Field archaeologists recently discovered extensive smelting sites in the Agbaja - Nwofe village group.[158] Like the

Lejja people, the inhabitants of Agbaja - Nwofe have no tradition of iron working and no idea of the origin of the slag mounds in their area. To them, the mounds were the spots where the people of 'the first creation' were burned alive together with their material possessions because of their iniquities.[159]

During the precolonial times, the Abakaliki area was the scene of constant wars resulting in frequent population dispersals. Some of the dispersed populations are in other parts of Igboland today, some in Idoma; the others fled across the Cross River to the east. The Ezza and Izzi clans, which today constitute the dominant groups in the Abakaliki district, have had a history of territorial expansion through military conquests. It was colonial intervention which froze their expansionism.[160] In the circumstances, it would be no surprise that the present Agbaja - Nwofe people have no knowledge of the origin of the slag mounds.

On their own part, the smiths of Agulu Uwani appear to have been active in the Nsukka area and the district to their southeast. In the former, they were probably responsible for the advent of smithing in Ukpatu and Ohodo by c.1701-1731. However, they seem to have made more impression in the latter area. A synthesis of their traditions would suggest that they introduced the

technology in Agbani, Amagunze, Nomeh and Ndeaboh, beginning from about 1711-1741.

For some time after the advent of iron technology in Awka and Nkwere, the smiths seem to have been primarily preoccupied in building up their skills and establishing their presence in the neighbouring communities. The fact that they did not have sources of iron ore to exploit may have helped to check their initial growth. On the other hand, this disability tended to make them more outward-looking than the other smelting and smithing centres. This would help to explain the fact that Awka and Nkwere smiths -- as is evident in the next chapter -- were, without a doubt, leading itinerant smiths in Igboland by the late eighteenth century.

However, by the end of the seventeenth century, their gestation period seems to have been over. Within the local environs, Awka smiths introduced the craft in Enugu Ukwu, Abagana, Ogidi, Mba Ukwu, Ebenebe, Obosi and Awkuzu. In the district immediately to the south, Awka smiths brought the craft to Ngbowo, Achi, Inyi and Ujala. The Prevalence of akputakpu as the smithing deity in most of these centres lends credence to the claim of the Awka origins of the technology.

Awka's influence as a smithing centre was being felt in more distant places by this time. Omo, a settlement

located just west of the Adada River was founded by a splinter group from Agulu Awka called Umuoru.[161] Another group of itinerant Awka smiths proceeded to establish at Adaba, north of Omo, c.1764-1794. The northward penetration of the smiths led to their establishing centres in Nsukka and Igala areas. In Nsukka, the centres were Igga, Nibo, Adani and Opanda. The centres they established in Igala included Unale, Odeke, Adoru and Angba. The technology was transferred either through the permanent settlement of the iron workers or through the adoption of local apprentices.

Udi and Awka smiths appear to have developed greater technical skills and organisational ability than Nsukka smiths. It was for this reason that they were able to re-export the technology to Nsukka, the locale from where the craft had come to them. Another factor was that more than their Udi and Awka counterparts, Nsukka iron workers adhered strictly to the tradition of restricting training to only boys born into iron working lineages. The growing influence of the 'intruders' were resisted physically and violently by the native smiths. The issue was, however, resolved amicably by the elders, and each group went about its business unmolested.[162]

The antiquity and origin of iron technology in the West Niger Igbo communities are elusive. A substantial

Igbo population had spilled across the Niger from their eastern core quite early in their history. This movement had extended beyond Benin before the rise of the Eweka dynasty in c.1320-1347.[163] Such vast territorial expansion through a thickly forested region suggests the availability of iron technology or at least iron implements.

Agulu Umana and Agulu Uwani speak of early itinerations of their smiths to the west Niger area at times when Awka had not known iron.[164] The traditions could be egocentric, and it is difficult to decipher how much substance they contain. However, the confidence with which they are narrated and the seeming familiarity of the area in the narrative traditions persuade one to accord respect to them. However, Awka seems to have a more convincing tradition of being influential in the area. Umuogwugwu, a smithing lineage in Illah, located on the western bank of the Niger, was founded by an itinerant Awka smith towards the end of the eighteenth century.[165] Other centres which have traditions of Awka ancestry include Ibusa, Isele-ukwu, Ogwashi-ukwu and Umunedé.

Nkwere's contribution to the spread of iron working started with the neighbouring communities of Eziama, Owere Nkworji, Mgbidi and some villages in Mbano. The dependence of Nkwere on the Uturu smelting centre for

bloom necessitated early movement of the smiths in that direction. In the process, they went on to establish smithing in Okwe, Okwele, Amudo and Ezinachi between c.1677 and 1745. By c.1790-1820, Nkwere smiths were establishing smithing centres in more distant places. For instance, the Umukabia village in Ohuhu, Umuahia, have a saying which seems to date to the 1790s that "Chukwu blessed Nkwere with blacksmithing and Nkwere extended the blessing to Umukabia".[166] The tradition of Akokwa people attributes the advent of the technology to an Nkwere man Ejiogu, c.1869-1899.[167]

In Mbano, the smiths' deity is Ugadazu, which seems to have been derived from Ogadazu, Nkwere people's god of iron. There are also traditions of Nkwere smiths who settled permanently in parts of Ngwa, Ama Etiti, Aboh Mbaise and Obinze. The Ezi Ukwu and Amanka lineages in Igbere say they learned smithing from Nkwere; a counter tradition claims an Abiriba origin, and points to the Umuero lineage as descendants of the Abiriba smiths.[168] The reality seems to be that while Ezi Ukwu and Amanka learned smithing from Nkwere, Umuero learned it from Abiriba.

Abiriba smiths were dominant in the Cross River area. A number of smithing families in Ohafia, Abam and Ututu trace the coming of iron to Abiriba. In Okon Aku, for

instance, the Obubo family of Ndi Ezuma say that their grandfather, Ibe Obubo, c.1854-1884, learned smithing at Abiriba.[169] The Maduekwe family of Ndi Ukpai, Asaga, also trace their smithing tradition to Abiriba.[170] Other communities in the Cross River area which owe the technology to Abiriba are Afikpo, Akpoha, Umon and possibly Ugep. As indicated earlier, Uturu was noted more for smelting than for smithing. Its influence in the spread of iron working seems to have been limited to the immediate communities of Isuochi, Okigwe and Ovim.[171]

Conclusion

At the end of the second phase of the discussion, twelve iron centres were identified. At the end of the third phase, the number had more than quintupled. Many of the new centres engaged in smithing only. The proliferation of the centres was the cumulative result of developments within and outside Igboland. Increasing tendency towards full-time smithing encouraged the smiths to itinerate to non-smithing communities. Such itineration -- discussed in chapter four -- in some instances resulted in permanent settlement by the smiths.

From the seventeenth century, European imports of iron were beginning to influence the pattern of the spread of iron technology in southeastern Nigeria. Iron bars and copper rods were used as raw materials by smiths. By the

end of the seventeenth century, iron had become such a dominant import, the iron bar was being used as a unit of account. As the imported iron became more widely distributed, it was feasible for smiths to set up centres far away from the smelting points. The orientation of the diffusion of iron technology southwards was partly a response to the commercial activity on the coast.

The reconstruction of the diffusion of the knowledge of iron made in our analysis seems to raise more questions than answers. Archaeological dates make it clear that iron had been known in the Igbo area by the ninth century A.D. But our genealogical dates make it look as if iron technology started in the area in the sixteenth century. Yet visible evidence on the ground supports the archaeological dates. The seven hundred years between the archaeological and the genealogical dates remain to be explained.

Where did the earlier iron workers go, and what happened to them? The present research does not have an answer to the question. Nor can it come up with even an informed guess. It might be, as Shaw speculates, that some catastrophe overtook the earlier civilization.[172] Yet there are no hints of such a catastrophe in the mythic traditions, not even in southern Igboland, where one would expect to find remnants of such myths and

traditions.

In our analysis, crucial questions have been raised and myths, entrenched by age and repetition, challenged. The reconstruction, for obvious reasons, is necessarily tentative. However that may be, a number of major conclusions can be advanced. First, given the southward pattern of the diffusion of the technology, one suspects that up to c.1500, the Nsukka area was probably more densely populated than the area to the south. The Igbo-ukwu digs, however, suggest that pockets of population concentrations were not absent in the south.

Second, the Nsukka area was a much earlier zone of iron technology than students and scholars of Igbo studies seem to be aware. It probably preceded Awka by several centuries, perhaps, a millennium or more. Third, Awka achieved a leading role in the iron industry in parts of Igboland and beyond, not before the eighteenth century. Before the emergence of Nkwere and Awka as major centres of the smithing industry, the Uli and Nsukka areas led the way in the industry.

Finally, the Eri legend, which has been applied in a rather omnibus and uncritical manner by historians and anthropologists alike in the reconstruction of the Igbo past, dates not before the late fifteenth to the early sixteenth century. Eri was an historical figure, but the

legend associated with him seems to be an amalgamation of pre-Eri and Eri corpora of myths. The royal traditions of Umunri and Umueri, associated with the Igbo-ukwu artifacts, need to be studied more carefully in order to separate the pre-Eri regnal genealogies from that of Eri. Pushing backwards the historical figure, Eri, centuries before his existence compounds the confusion in the admittedly difficult task of reconstructing the cultural and political history of the Umunri and Umueri clans.

## CHAPTER TWO: ENDNOTES

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# CHAPTER THREE

## ORGANISATION AND TECHNIQUES OF PRODUCTION

From the discussion in the previous chapter, it can be inferred that iron working was a complex technology. The production process can be broken down into two stages -- smelting and smithing. Iron ore is found in rocks and in minerals which contain iron particles. Smelting is the extraction of iron or metal in general from its non-metal matrix. Smithing is the forging of metal into objects for human consumption. The two stages are functionally interdependent: the functioning of one implies the existence of the other.

Iron production involved a lot of technical skill as well as the ability to organise labour and time efficiently. In traditional society, certain qualities were attributed to iron, and its production was believed to require more than the application of technical and manual skill. It seems apt, therefore, to preface the discussion in this chapter by outlining the traditional conception of the inherent qualities of iron.

### The Powers of Iron

There was a universal belief in the ancient times that iron possessed inherent powers, ranging from the holy to the accursed. The powers were believed to derive from

the earth spirit from whose bowel iron was obtained and the fire through whose crucible it passed. In the ancient Egyptian, Greek and Roman mythologies, some of the most powerful deities and heroes were associated with iron, for instance, Vulcan, the Roman god of fire and metal working and the Cyclops, the Greek demon of the thunder storm and fire.[1]

Iron was believed to be 'charged' and dangerous to everyone, except those who knew how to handle it. Properly handled, it could bring blessings in the form of medical cures and the gift of children. Mishandled, it could bring dire consequences. These types of beliefs had important bearing on the way production was organised.

Throughout most of Africa, the sacred iron complex, to which this set of beliefs refers, was widespread. The most comprehensive survey of this phenomenon remains Walter Cline's Mining and Metallurgy in Negro Africa.[2] In parts of Angola, iron smelters were looked upon as semi-gods, and the smith's hammer was an object of worship.[3] Among the Masai of East Africa, smiths were a dreaded, even despised group.[4] In the Tiv society, northeast of Igboland, iron connoted power and prestige.[5] Among the Yoruba pantheon, Ogun, the god of iron, was one of the most revered.[6]

The Igbo conception of the powers of iron conformed

to this universal view point. The praise name for iron in Umugwu Ekwom, Eha Alumona, is Otikpo, 'the destroyer'.[7] The Nkwere refer to their god of iron, Ogadazu, as odum eje Igbo, 'the mighty one who conducts me throughout Igboland'.[8] It was apparently axiomatic throughout Igboland that without some esoteric powers, the iron workers could not have performed their role. They possessed considerable mystical powers and knowledge beyond the ken of their neighbours who consequently looked on them with a modicum of awe and respect.

Smiths played the role of beneficent diviners who could save the people from witchcraft. People obtained from smiths pieces of slag which they placed on their property to prevent stealing. Among the Nsukka people, the most intractable problems were often resolved by the parties involved swearing an oath on the anvil.

Because of the powers attributed to iron, the smithy was treated not as a manufactory per se but also as an abode of the god of iron. The iron deity was a fastidious being, and exacted the strictest compliance to numerous injunctions it imposed on all those who worked iron or visited the smithy. The prohibitions can be divided into two categories, namely, those pertaining to Ofeke, that is, non-smiths who visited the smithy, and those pertaining to the smith himself.

To the non-smith, the forge was a popular resort for a variety of reasons. Customers frequented it daily to buy or to commission implements or to submit old ones for repair. To many others, it was an ideal place for relaxation and gossip. A part of the attraction of the forge was visual and auditory. The visual stimulus of charcoal fire, the falling hammer, the sparks and the changing colours of a working metal had an almost irresistible appeal. The auditory ring of the anvil was no less inviting.

The forge was also a sanctuary for the oppressed or the fugitive because violence could not be committed in it, or within its immediate precincts. Iron had some of the sacred qualities of the earth deity, ala, one of the most important of which was the abhorence of blood.[9] Even the most dreaded mmawu, masquerade, could not pursue a victim to the precincts of the forge. However, the forge was not a haven for the law breaker. It simply provided a conducive condition for the cooling of temperg between adversaries so that differences could be settled in a sober atmosphere, according to established custom.

While in the smithy, the visitor had to abide by the operating injunctions. He might enter the forge and depart only through the front entrance. He must not throw sand on the back of the smith or pass behind him with a

fire clinker. The anvil and the hammer must not be knocked together. Indeed, ofeke must not lift the hammer or strike on the anvil. He could help the smith to operate the bellows, but the forge fire could not be fanned with the mouth. The sound produced by working bellows could not be danced to, no matter how melodious and inviting it might be. A menstruating lady could not enter the smithy nor could a baby less than six to nine lunar months be brought to the smith's work premises.[10]

The contravention of any of these taboos incurred the dangerous displeasure of the deity. It had to be propitiated with the appropriate sacrifice which could involve the slaughter of a dog, a goat or fowl. Failure to comply would result in the offender being struck by abominable disabilities or diseases such as leprosy, paralysis, imbecility and the swelling of the stomach and legs. If a thief stole anything from the forge, the smith would simply scoop some sand from his or her footprint and throw it in his forge fire. The offending thief's body would swell as the bellows were pumped to give draught to the hearth. If the smith was unaware of the theft, the deity on its own would strike the thief with an abominable disease. Thus the forge is said to be its own keeper.

On his own part, the smith adhered strictly to the demands of his profession. He started his day's work with

an invocation to the deity to guard the forge, prevent accidents therein and attract customers. Whenever kola nuts or drinks were shared in the forge, libation was first made to it. The smith could not harbour ill feelings even against his foe. He must do no harm, physical or metaphysical, except in self-defence. These injunctions derived from the philosophy that a smith must abhor violence and bloodshed.

As a corollary to this injunction, the smith could neither eat food prepared by a menstruating woman nor have any form of contact with her. If he ate such food in error, he developed a running stomach and his lips chapped and peeled off.[11] No smith could abandon the forge for good, even if he had taken to a different profession. Once in a while, he must resort to the forge and 'make the bellows and the anvil and the hammer to talk'.[12]

Whenever the wife of the smith had a baby, he must present the baby at the appropriate time to the deity for its blessings. This was done with a sacrifice of thanks involving some feasting to which the kindred and friends were invited. Smithing was in the blood of every child, male or female, born in a smithing family, even though the profession was restricted to the male children.

In addition to the individual smith's obligations to his deity, the kindred made regular sacrifices to their

common deity from which individual smiths derived their own. All the injunctions had to be strictly observed, otherwise the smith would be faced with a host of misfortunes such as the conflagration of his home and workshop, the frequent deaths of his children (amúta anwua) and abortive pregnancies of his wives.

## Section One: Procurement of Raw Materials

### I. Smelting

Before European traders started to import unfabricated iron into southeastern Nigeria, Igbo smiths must have depended almost entirely on internal sources for their supply of iron. Possibly some quantities trickled in from the Cameroon area via Ekoi traders, and from the Igala - Idoma country.[13] As indicated in the previous chapter, until the European import of iron became substantial in southeasten Nigeria, the pattern of the spread of the smithing industry was dictated by the location of the smelting centres.

The traditional methods of smelting were investigated closely in ten centres in Igboland.[14] In some instances, smelting appears to have been continued into the second decade of this century. In the case of Eha Ndiagu at least, it continued probably into the 1930s or the 1940s. It was thus fortunate that in the field, one was able to

meet with men, mostly in their eighties and nineties, who, during their teens, had taken part in smelting.

In 1976, a group of traditional smelters from the Umuegalika kindred of Umundu, was invited by the Department of Archaeology, University of Nigeria, Nsukka, to perform a demonstration experiment of the traditional technology. The demonstration included furnace construction, loading the furnace with ore and charcoal, and firing the charge. The reconstruction of the smelting process made below has benefited from the eye witness accounts of the respondents interviewed and from insights gained from direct observation during the experiment.

The smelting techniques employed at the different centres in Igboland appear to be identical in many important respects. Nevertheless, differences existed, for instance, in the furnace types and the fuel supply systems. The shaft furnace using self -- or induced -- draught was the dominant type during the period of this study. The pit or bowl furnace seems to have been used perhaps more commonly in earlier times.

Originally, smelting and smithing in most of the iron centres were probably monopolised by one and the same group. By the eighteenth century, however, functional specialisation had become a distinguishing feature of the iron industry. In most centres, a lineage or kindred that

smelted could not smith; one that smithed could not smelt. The exceptions to this rule were Abiriba and Udi. Even in these centres, certain lineages or families were better known for either one or the other of these specialisations.

The history of this development varies from community to community. It seems to have been brought about by one or a combination of three factors. First, in some instances, smelting and smithing were introduced by two disparate groups, and from the beginning, each group maintained its speciality. This was the case in Umundu, for instance. It may be recalled that the Umuashane kindred traces the coming of smithing to Idah while the Umuegalika attributes the inception of smelting to Edumoga who probably came to Umundu from Idoma. Umuashane monopolised smithing, Umuegalika, smelting.

Second, in some instances, specialisation evolved when smelting was forced to move away from smithing. The Eha Ndiagu - Eha Alumona traditions, discussed earlier, typify this example. As a new settlement with a small population located away from the iron consuming population, Eha Ndiagu must have been disadvantaged in the marketing of iron products vis-a-vis Eha Alumona, the parent village. These factors, coupled with the abundance of iron ore and wood fuel, must have given the new

settlement a comparative advantage in the smelting of iron.

Finally, specialisation developed in some instances because particular kindreds controlled access to the raw material, iron ore. This appears to have been the case in Uturu and Aku. In the former, iron working was the special preserve of the Ugwuogu village which is composed of three lineages -- Okwugo, Obiaguta and Amaho.[15] Originally, the three lineages smelted and smithed. The concentration of the best quality ore was in the Okwugo lineage land. After the others had exhausted their own resources, the Okwugo group would not allow them to exploit its own. The others were forced to scour distant locations for iron ore which increased the cost and problems of production for them. In the end, they went on to concentrate on smithing while Okwugo, being less expensive producers, concentrated largely on smelting.

The evolution of specialisation in Aku was brought about by a situation identical with that in Uturu. The lineages of Amogwu, Umudimotue Mgboko and Ama Ugwunani were all originally smelters and smiths. But the bulk of the ore found in the community was in lands belonging to Umudimotue Mgboko and Ama Ugwunani. Amogwu had land with limited iron ore. When this was exhausted, the other two lineages would not allow Amogwu people access to their

own. Amogwu people gradually abandoned smelting and concentrated on smithing. Umudimotue and Ugwunani went on to specialise in smelting.[16]

In the Umundu and Eha Ndiagu examples, it is not difficult to date the events since they seem to go back to the inception of the technology in both places. In the former, this could be dated to c.1629-1659 or c.1631-1661.[17] In the latter, this could date to c.1712-1742, the foundation date of Eha Ndiagu.[18] In the Aku and Uturu examples, the dating is more problematic because the phenomenon evolved over a long period of time. In Aku, this became apparent long after the arrival of Ushene Agulu Eha in c.1583-1613. In Uturu, the division appears to have become distinct from around 1677-1707.

By whatever means the various centres came to specialise in either smelting or smithing, it seems that they proceeded to fossilise the status quo through mythical charters and ritual sanctions. This was done principally to protect the industry from intrusion by other groups. Thus iron production in Igboland, as in other societies throughout Africa, combined practical skill or technology with ritual observances.

Denis Williams has caricatured traditional African smelting as a mysterious and fitful transformation of earth into metal.[19] Both Pole and J.H. Vaughan do not

share Williams' theory.[20] Our own evidence shows that, in spite of the mystic elements surrounding the technology, the traditional system of smelting used applied science. This is in accord with Pole's emphasis that

> anybody who has looked in detail at the way iron was produced in West Africa would be likely to agree that it was a complex, skilled, lengthy and very labour intensive process.[21]

These factors, coupled with the enormous amount of wood fuel used during smelting, are crucial in understanding the displacement of local iron, aga, by imported iron, akpaka.

The traditions indicate that smelting was never carried out on an individual basis, but necessarily by a work group, organised on a kinship basis. Women were originally excluded from participating in all the direct processes of smelting. However, by the mid-eighteenth century, dwindling wood and ore resources had necessitated in most of the centres not only the hiring of external labour, but also the use of direct female labour. Hired labour was used in the production of charcoal; female labour was used in charcoal production as well as in ore preparation. The utilisation of female labour did not alter the basic ideology that iron technology was a man's preserve.

It is estimated that in the late-nineteenth century, an average work group consisted of six men. Previous

averages are said to have been lower because fuel and ore were more easily available. In some centres, such as Uturu and Agulu Umana, smelting was carried out by an entire kindred, which could contain twenty to thirty young men, or even more.[22]

Where the situation permitted, smelting was done within easy reach of wood fuel and iron ore. Otherwise, consideration of the proximity to iron ore rather than wood fuel tended to influence the location of a smelting manufactory. The main reason for this was that haematite, in which ore was encrusted, was too heavy to be carried in any quantity over a long distance. Charcoal was much lighter. What is more, the bloom obtained after smelting constituted only a small fraction of the haematite.

Smelting Stages

Smelting was carried out in a series of steps. These were charcoal production, furnace building, ore preparation and loading of furnace, and firing of the charge. We shall examine these steps one after the other.

(a) Charcoal Production

The first step was for the work group to consult the priest of the smelting deity, _itoro_ or _ntu_, with an appropriate sacrifice to find out if problems might arise in the course of smelting. The priest, usually the eldest

member of the smelting kindred, then spelt out the steps the group had to take in order to win the approval of the deity. This again involved more sacrifice to the deity. Failure to carry out the wishes of the deity was believed to invite risks. A falling tree might kill a member of the work group; and the charcoal yield might be too small to carry out a full smelt.

The consent of the deity secured, the group's next step was to procure wood in the form of charcoal or tree trunks. Only trees with 'the closest wood'[23] were suitable for smelting because they were the most solid, lasted longer than any other species and were also the strongest to bear the weight of ore when loaded in the furnace. These trees included akpaka (African oil bean), ahaba (Acioa bateri), igirinye and okpeye.

A day prior to the production of charcoal, the group collected all the tools it required ready for the impending job. These tools were axes, matchets, hoes, diggers, whetstones, wicker baskets and pots and gourds. Each tool served its own purpose. The matchets were used for clearing the work site and cutting down smaller trees, while the axes were used to fell the giant ones. The hoes were used to weed the work site while the diggers were used to dig a trench for charring wood.

The whetstones were used for sharpening the tools

whenever they became blunt. Combustible materials, such as palm kernel shells, were collected from the bushes around with the baskets. The gourds and pots were used for fetching and storing water, the latter also for cooking food. Some of the food required by the workers was prepared the preceding evening while some was taken uncooked to the work site and cooked or roasted there. The fetching of water and preparation of food were done by the women.[24]

The next morning, the workers took off at the first cock-crow, that is, around five o'clock. Any person who had engaged in sex the previous night was barred from participating. The same injunction applied to a menstruating woman. Every stage of the production process had to be performed under a condition of ritual and spiritual purity. This was necessary to avoid defiling the spiritual force that dwelt in iron, which demanded the highest state of moral and spiritual purity from those who dealt with it.

The next task that lay ahead was strenuous. The right tree species had to be located and felled. They did not grow in profusion. Three sizes of the trees were usually cut -- the giant, the medium and the small. The giant ones were those which had attained maximum maturity; they had enormous heights and girths. Because of their

size and hard wood, the felling of the trees exacted a lot of physical energy.

From the accounts, it is estimated that it took three men about four hours to fell one giant tree.[25] Two of these giant trees were required for one charcoal production round. In the cases of the medium and small size trees, on the average, six and sixteen, respectively, are said to have been sufficient. The medium size trees were preferred basically because they produced the best charcoal. The giant ones were not only the most strenuous to fell, they were also the most difficult to be charred. The small size ones were delicate in charring.

After the trees had been felled and cut up into convenient logs, these were assembled at the charring point. The charring was done in a trench dug in the form of a cross. The depth reached to about the navel of a man of an average height, approximately four and a half feet. The width measured five to six feet, and the length, about eight feet, giving a volume of about 180 cubic feet. Digging the trench was another energy sapping job. It was commenced after the lunch break when every member of the work group had rested. The job took about four hours to complete. The remaining job had to be completed the next day. By the time the exhausted workers trekked back home, it would be around five o'clock, making it a twelve-hour

working day.

The next day was used to load the logs into the trenches. The combustible materials collected by the women were first laid out at the bottom of the trench. The logs were then packed on top of this, with more combustible materials being fed into the pack at regulated intervals. The top was then covered with green palm fronds, banana trunks and leaves and tree bark. The entire heap was then covered with wet soil. It was subsequently set on fire from the bottom and left to burn out. This job is estimated to have taken about six hours.

The burning could continue for four to twelve days, depending on the size of the logs.[26] The rationale for charring the wood in a trench was to produce plenty of charcoal and as little ash as possible by minimising the intake of oxygen. The completion of the charring was signalled by the collapse of the pack. A few days were allowed for it to cool. The workers then went back to the site, removed the top cover of the pack and sorted out the charcoal. This was head-loaded to the smelting site. This job is estimated to have taken about five hours.

Thus, charcoal production took a little over twenty-three hours. The charcoal produced was usually enough for two smelts, sometimes with a little quantity left. The trench itself was reusable as long as suitable trees could

be acquired within a reasonable distance. This would mean that the time spent in subsequent charcoal production would be less by four hours, or twenty-four man-hours.

The traditions tend to suggest that smelting was a full time job prior to the nineteenth century, except in centres like Abiriba and Agulu Amana, where smelting and smithing were done by the same people. Some respondents claim that smelting was still a full time profession right to the end of the nineteenth century, though they admit that this did not mean the complete abandonment of farming.[27] This was still done in the intervals between charcoal production and smelting. However, the bulk of the farm work was left to the women. Given, as it is shown below, the number of times a group smelted in a year and the paltry income derived from it, it seems very likely that smelting was no longer carried on as intensively as in earlier times.

The peak smelting period was October to May, a total of 244 days. June to September was the slack season, a total of 122 days. A work group is estimated to have smelted once in four Igbo weeks, izu, of sixteen days during the peak season, making a total of fifteen smelting times. During the slack season, which was also the rainy season, the frequency was reduced to once in six izu, giving a total of five. This would add up to twenty

smelting sessions in a year, involving ten rounds of charcoal production.

In one year, a work group would potentially exploit twenty giant trees, or sixty medium or a hundred and sixty small size ones. Since the medium size trees were the most popular, we may suppose that half of the trees exploited were medium, and only a fourth were giant and the remaining fourth small. In one year, a work group would exploit thirty medium, forty small and five giant trees.

Careful estimates would put the number of work groups at the close of the nineteenth century in the communities indicated below as follows:[28] Aku 15; Agulu Uwani 12; Agulu Umana 8; Orba 6; Umundu 6; Eha Ndiagu 6; and Amuzu Ihunowere 5. The annual estimates of trees exploited by the smelters is expressed in Table Four.

From the extrapolation outlined in Table Four it can be seen that smelting consumed an enormous amount of wood, even during a period when production was probably on the decline. Over a period of three centuries, the total number of trees that might have been felled at one centre might have been staggering, even if we assume a stagnant annual rate of exploitation. Aku, the largest centre, might have exploited around 337,500 and Amuzu Ihunowere,

TABLE FOUR: NUMBER OF TREES EXPLOITED PER YEAR

| Smelting Centre | Work Group | Trees Exploited/Year Medium | Small | Large | Total at Each Centre. |
|---|---|---|---|---|---|
| Aku | 15 | 450 | 600 | 75 | 1,125 |
| Agulu Uwani | 12 | 360 | 480 | 60 | 900 |
| Agulu Umana | 8 | 240 | 320 | 40 | 600 |
| Umundu | 6 | 180 | 240 | 30 | 450 |
| Orba | 6 | 180 | 240 | 30 | 450 |
| Eha Ndiagu | 6 | 180 | 240 | 30 | 450 |
| Amuzu Ihunowere | 5 | 150 | 200 | 25 | 375 |
| Totals | 58 | 1,740 | 2,320 | 290 | 5,684 |

the smallest, 112,500. An estimate derived from field experiments in Ghana by Posnansky suggests that not less than 300,000 trees might have been exploited at Dapaa in 300 years, c.1400-1700.[29] The estimate is even thought to be "on the conservative side".[30]

It may be recalled that the trench for charring the wood was estimated at about 180 cubic feet. This was commodious enough to take in about one and a third cords of wood, a cord being 128 cubic feet.[31] The experts tell us that even in the thickly forested regions of Africa, twelve cords would involve the exploitation of one acre of forest.[32] Northern Igboland did not belong to the heavily forested regions. Presumably, therefore, twelve cords would involve the exploitation of more than an acre of

forest. At any event, the above estimate would mean that for each charcoal production, a work group would exploit one ninth of an acre (that is one and one third divided by twelve). In one year of ten times of charcoal production, one work group would exploit one and one ninth acres. The acreage exploited by each smelting centre per year is expressed in Table Five.

TABLE FIVE: EXPLOITED ACREAGE BY SMELTING CENTRE

| Smelting Centre | Work Group | Acreage per group per year | Total per centre per year (acres) | Total in 300 years (acres) |
|---|---|---|---|---|
| Aku | 15 | 10/9 | 17 | 5,100 |
| Agulu Uwani | 12 | 10/9 | 13 | 3,900 |
| Agulu Umana | 8 | 10/9 | 9 | 2,700 |
| Orba | 6 | 10/9 | 6 | 1,800 |
| Umundu | 6 | 10/9 | 6 | 1,800 |
| Eha Ndiagu | 6 | 10/9 | 6 | 1,800 |
| Amuzu Ihunowere | 5 | 10/9 | 5 | 1,500 |
| Total | | | | 18,600 |

The experiments conducted at Dapaa, northern Ghana, came up with the estimate that to produce a block of slag 1,962.29 cubic metres in volume, 307,431 trees would be required.[33] Extrapolating from these figures, we may be able to make an estimate of the number of trees which might have been exploited to produce some of the slag

blocks found at Lejja. As indicated earlier, the slag blocks at the Dunoka assembly ground numbered about 800, "mostly measuring more than 1.3 cu. m[etres] each in volume".[34] The 800 blocks would amount to 1,040 cubic metres, and would require around 162,936 trees to produce.

A second estimate by the archaeologists which seems to include the immediate vicinity of the assembly ground would give even higher figures. They state that "the principal area of concentration so far identified covers a minimum of 500 $m^2$ with a density of 3 - 4 slag blocks per $m^2$ in some of the densest areas".[35] If we take the lower average of three blocks per square metre, we would have 1,500 slag blocks in the 500 square metres. At 1.3 cubic metres per block, the total volume would be 1950 cubic metres. This would involve the exploitation of 305,506 trees. Since the slag blocks are scattered all over the Lejja community, and some are even buried in the ground, it is certain that a much larger number of trees might have been exploited by the smelters at Lejja before their emigration.

Clearing the forest must have helped to increase food production for some time, but in the longer run, a reverse effect might have been produced.[36] The ecological impact of the destruction of such vast numbers of trees must have been tremendous, and helps to explain the early emergence

of the derived savanna in much of Igboland. Incidentally, the trees exploited for charcoal production were invariably slow-growing, and took normally twenty to twenty-five years to attain full maturity. The onset of drier weather in West Africa since the 1680s may have further retarded the growth of the species.[37]

On the whole, their demolition favoured fast growing trees which would easily usurp the spaces created by the felled trees. The implication was that a smelter demolished far more trees than could regenerate in his life time. It is instructive that the zone where iron working was carried out most intensively coincides with the area most characterised by the derived savanna. When Europe and the United States of America were faced with dwindling forests arising from iron smelting, it was the adoption of coal in the 1750s which saved the threatened industry and spared the forest.[38] In Igboland, coal was never used as fuel before the twentieth century. The resulting imbalance in the ecosystem must have been compounded by the farmers who had access to iron implements, and also adopted the slash-and-burn system for clearing farm land.

A major result of the changing vegetation was the proliferation of the oil palm in the Igbo area in particular and southeastern Nigeria in general. During

the British military invasion of Igboland at the beginning of this century, Lieutenant Colonel H.L. Gallawey of the Aro Field Force was struck at the profusion of oil palms. "The first thing that strikes one", he wrote, "whilst moving through the greater part of this territory is the wonderful wealth in oil palms".[39] The oil palm does not thrive in a virgin forest. Its original habitat in West Africa is thought to be the savanna-forest interface. Its presence in the forest zone is thus seen as "an indicator of human activity".[40]

(b) Furnace Building

As suggested earlier, two broad types of furnaces may have been known in the Igbo area, namely, the pit or bowl furnace, and the shaft furnace. The former probably preceded the latter and, as Anozie and Ray observe, may have been used mostly before the sixteenth century. From the point of view of the bloomery technique, the shaft furnace can be divided into two: those with a separate slag-tapping device and those without. The former were identified in Aku, Eha Ndiagu and Uturu, the latter in Umundu and Orba.

The smelting site was usually set out at a fair distance from the community. This was to ensure secrecy and avoid the possible pollution of the ritual purity of

the site by other people who might have wicked designs against the smelters. Also, the furnace heat was usually very intense and was considered dangerous to the community.

The site was first cleared and the ground thoroughly weeded. In the case of the furnace with a separate tapping device, a pit was dug close to the furnace and linked to its combustion chamber by a sort of channel which served to drain off the molten slag during the combustion. The furnace itself was built with mud puddled with water left over from the processing of oil palm fruits. This oil-permeated water made the mud colloidal and durable.

There were two methods adopted in building a furnace. In one of these, the wall was built by the traditional wattle and daub method used in building dwelling houses.[41] Tree stems were cut and assembled at the smelting site. These were sharpened at their thicker ends and pinned firmly into the ground in a circular form round the furnace floor. Strong twigs were used to inter-weave the standing stems in a horizontal manner, and then tied up with withes, producing a circular fence. The structure was then plastered with the puddled mud. Three openings were provided on the furnace, one at its top, two at the base. The structure was then left to dry either on its

own or by firing the inside with twigs and dry grass.

In the second method, the furnace was built entirely with mud; no wood was used but the wall was thicker. To avoid its collapse during the construction, the job was never completed in one day. Rather, it was spaced out in three phases over a period of about twelve days. Altogether, the construction of the furnace took not more than four hours, making it twenty-four man hours.

The experimental furnace constructed for the Department of Archaeology, University of Nigeria, Nsukka, had an internal diametre of one metre at the base and a tapered height of 1.7 metres.[42] These appear to have been the dimensions of the furnaces used in most parts of Igboland, and fall within the range of other furnaces analysed by Pole in northern Ghana.[43] The exceptions where Ugwuogu in Uturu and Agulu Umana where smelting was done by an entire lineage. In these cases, larger furnaces seem to have been in use. Ugwuogu Uturu traditions suggest the use of furnaces measuring around 2.6 metres high, barely taller than the ones described by John Duncan in Dahomey (now Benin Republic) in the 1840s.[44] The Benin furnaces averaged 2.4 metres in height.

In the Abakaliki furnace type, a cylindrical free-standing miniature wall was built to enclose the pit dug

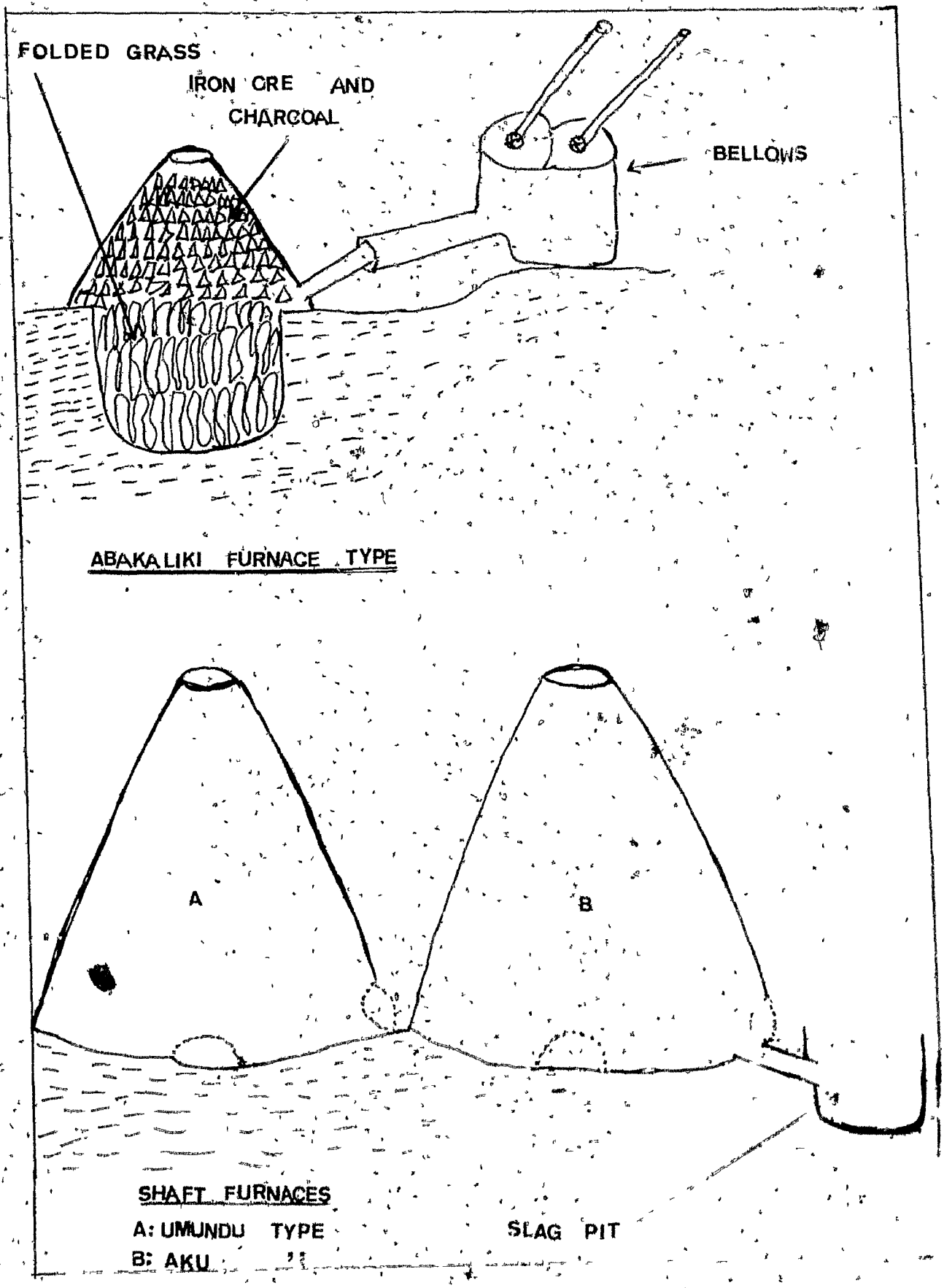



Illustration Two: Igbo Furnace Types

in the ground. The furnace measured not more than 75 centimetres high.[45] A provision was made for the insertion of a tuyere at the ground level, through which air draught was pumped into the combustion chamber with a pair of bellows. After the construction, the wall was left to dry.

(c) Ore preparation, Loading and Firing

Lateritic stone was the source of iron ore in Igboland. The laterites were collected on the ground surface, eroded hillsides or dug up from the ground with axes. They were broken down subsequently to gravel size pieces to facilitate reaction in the furnace chamber during combustion. The lateritic gravel was then carried to the smelting site. The collection and preparation of the ore is estimated to have taken about four hours.

The actual smelting started after all the materials were ready. A final offering was made to the smelting deity to solicit its cooperation so that the result would be successful. A critical stage was approaching and the necessity for an absolute state of ritual purity was reemphasised. In Umundu and Eha Ndiagu, a priest-diviner was usually present to provide ritual protection and direct the stage by stage loading of the furnace.[46]

Loading the furnace was done according to a well rehearsed order. The furnace floor was first overlaid

with combustible materials such as dry twigs, leaves and grasses. Palm oil was then spread over the stuff. This was followed with alternate layers of fuel and ore, beginning with fuel until the furnace was satisfactorily loaded. The loading was done through the opening on top of the furnace, the ratio of ore to charcoal being three basketsful to nine.[47] Orba and Aku smelters used wood rather than charcoal as fuel. Uturu combined both charcoal and plain hard wood. In the cases where wood was used as direct fuel, a substantial quantity of palm oil was poured over the charge to activate and quicken reaction during the combustion.[48]

Finally, the furnace satisfactorily loaded, fire was introduced to it through the two apertures at the base. The combustible stuff laid out at the bottom of the furnace helped to start off the combustion. A self-- or induced -- draught furnace did not usually require the use of tuyeres and bellows to inject draught into its combustion chamber.[49] However, in Ugwuogu, these were used to activate combustion but were withdrawn as soon as burning picked up satisfactory momentum.

The Abakaliki system varied from the general pattern. The furnace pit was filled up with folded bundles of grass.[50] Over this was packed alternate layers of charcoal and ore until the furnace was full. It was then

ignited through an opening at its base. Draught was continuously supplied to the chamber with bellows connected to a tuyere which led through the furnace wall. This was perhaps one of the basic differences between the self-draught furnace and the induced draught type. In the latter, continuous pumping of the bellows to supply draught during smelting was unavoidable; the former required very little attention during smelting.

In the cases of Eha Ndiagu and Umundu, loading and firing was accompanied with sacred chants, egwu iche. In the former community, women from the smelting kindred danced round the furnace to the tune of the chants. The chants and the dance were not just an invocation for a successful smelt, but also for procreativity in the kindred's women in particular, and also in the women of the whole community.[51] This belief, more than the economic viability of smelting, seems to have sustained the industry well into the 1930s and 1940s.

In the case of the self-draught furnace, the combustion lasted from twenty-four to forty-eight hours. Though it was not continuously attended to, the combustion was monitored to ensure that the heat was just sufficient to liquify the non-ferrous matrix of the haematite and make it flow as gangue, but not enough to melt the iron. The non-ferrous substances started to melt around a

temperature of about 1150 C, but it needed a much higher temperature, from 1530 C to melt iron. Such cast iron was not suitable for smithing.

If a tapping pit was connected to the furnace chamber, as in the cases of Aku and Ugwuogu, the molten slag flowed through the drain pipe into the pit, leaving the bloom or iron globules.[52] If no tapping device was provided, as in Umundu, the slag and the iron globules were mixed up, although the slag, being molten, was more likely to settle at the bottom. While the combustion went on, the furnace emitted a droning "doom - doom" sound from time to time. To the smelters, this was an unmistakable signal that the process was going on correctly. The smelters in Umundu responded joyfully with shouts of nne muru oha: "the mother of all human beings", an honorific for the smelting deity.[53]

When the combustion was over and the furnace had cooled-down, the smelters used wooden rakes to bring out the materials in the furnace chamber through the openings at its base. The slag pieces were sorted out from the bloom and thrown away. In the Agbaja - Nwofe furnace, the folded grass used to fill up the furnace pit was burned off during the combustion and the fluid slag percolated into the pit while the bloom settled on top of the slag. The bloom was taken while the slag was left in situ.

As can be seen from the above description, only in the case of Agbaja - Nwofé, where continuous pumping of draught into the combustion chamber was necessary, did the actual smelting call for much labour input. In the rest, where self-draught furnaces were used, very little labour was required in loading the furnace, firing and retrieving the bloom. This job did not take more than three hours, or a total of eighteen man-hours.

Like the trench used for charring wood, the furnace was a reusable factor, needing only a minimum of repair before being used again. It may also be worth while to recall that one charcoal production provided for two rounds of smelting. The labour input in one round of charcoal production and two rounds of smelting is tabulated in Table Six.

From the production of charcoal to the completion of two smelts, forty-one hours were spent, giving a total of 246 man-hours, an average of 123 man-hours to complete one smelt. Charcoal production took the lion's share of the time, 56.10%. In Ghana, Pole's estimate averages 60%.[54]

It was not possible to arrive at a direct estimate of the average yield of a normal smelt. Respondents indicated that a normal smelt yielded bloom about the size of an average yam. This is difficult to translate to a measurable weight. Nor was it possible either to make a

deduction from the experimental demonstration by the Umundu smelters. Owing to furnace mal-functioning, the smelt did not produce the expected bloom.

TABLE SIX: LABOUR INPUTS FOR CHARCOAL PRODUCTION AND SMELTING

| | Charcoal Production with the Initial Smelt | Second Smelt | %Labour Input |
|---|---|---|---|
| Digging of trench | 4 hours | ----- | 9.76 |
| Wood cutting and charring | 19 hours | ----- | 46.34 56.10 |
| Furnace building | 4 hours | ----- | 9.76 |
| Preparation of ore | 4 hours | 4 hours | 19.51 |
| Leading of furnace, etc. | 3 hours | 3 hours | 14.63 |
| Totals | 34 hours | 7 hours | 100.00 |

However, some informed extrapolation can be made from figures available elsewhere in West Africa. The figures vary quite considerably, though the variations may derive, in part, from differences in the smelting processes. In Nupe, S.F. Nadel reported about smelters producing bloom which has been estimated to weigh about eight kilogrammes.[56] In the northwestern part of Ghana, the estimated yields of usable iron per smelt vary from around 2.5 to 4.5 kilogrammes.[56] In the southwestern district, the variation was much wider, 3 to 16 kilogrammes.[57]

However, 5 kilogrammes appears to be the commonest yield of an average smelt.

The smelting traditions of Akpafu, southwestern Ghana, as described by Pole, were very similar to the Igbo tradition in important respects. Both used the self-draught furnace, 130 - 180 centimetres high. Charcoal production took the lion's share of the labour expended in smelting, though this was higher in Ghana (60%) than in Igboland (56%). It may be assumed that the yield of usable iron in Akpafu (approximately 5 kilogrammes) would be about the same in Igboland.

This would mean that one work group produced about 5 kilogrammes of usable iron in one complete smelt involving 123 man-hours. This can be expressed as 24.6 man-hours per kilogramme. The weight of a standard hoe, one of the most common products of the smiths, was about 680 grams (1 1/2 lbs.).[58] From 5 kilogrammes, approximately seven hoes could be produced. In one year of twenty times of smelting, a work group would produce 100 kilogrammes of bloom, approximating up to 140 hoes. A hoe is estimated to have cost about four and one half pence (4 1/2 d.), c.1880 - 1900. This would mean a total cost of 630 d. for 140 hoes. Let us assume that about thirty percent of the price of a hoe was the cost of the labour of the smith who converted the bloom into the hoe. The receipts of the

smelters would come down to 44l d., a paltry return. These estimates will be related to the cost of imported iron in the following section.

Smelting was thus a strenuous job, and certainly not particularly attractive from the point of view of the income the smelters made, at least in the nineteenth century. Because of its arduous nature, an unsuccessful smelt, remarked an Uturu elder, was a sufficient cause for smelters to mourn "as if one had lost a child".[59] The failure of a smelt was seen from more than a financial perspective. It portended some disaster to the entire community due to the association of smelting with fertility in women.

II. Imported Iron

Contact between Europe and West Africa from the fifteenth century opened up a new source of iron to the West African smithing industry. The initial iron imports are said to have consisted of 'bits' and 'wedges'.[60] Iron bars began to appear, perhaps from the late sixteenth or early seventeenth century. Although before the nineteenth century, the trend of iron imports into West Africa is blurred, it seems clear that on the whole, the growth rate was very high. By the 1520s, iron was listed among the most popular imports in West Africa. Colin W. Newbury's nineteenth century figures, based on customs

records of Britain's share of the trade, show steady growth. From about 209 tons in 1812, imports rose to 829 tons ten years later. By 1850, the figures had climbed to 3,691 and then to 13,149 tons in 1880.[61]

With specific reference to southeastern Nigeria, John Barbot reported, c.1699, that imports into the Niger delta included iron bars, in considerable quantities.[62] The prices were very high, and a man was reportedly sold for thirteen iron bars and a woman for nine.[63] Put differently, a man was sold for about 261 hoes, and a woman for 180. During that period, an iron bar weighed 13.6 kilogrammes.

Iron bars held the dominant share of the metal imports of the Niger delta by the beginning of the eighteenth century. A large portion of the cargo of a Royal African Company ship trading at New Calabar in 1677 consisted of 1,420 iron bars.[64] Three years later, another ship, The African, doing business at the same port had 66% of its cargo in iron bars.[65] Although the ultimate destinations of the bars are not known for sure, the dominance of Igbo smiths in southeastern Nigeria as well as in much of the Benin and Igala kingdoms makes it likely that much of the imports ended up in their forges.[66]

Iron bars were not the only form of metal imported

into southeastern Nigeria. Copper and brass were also imported from Europe. From the Igbo-ukwu artifacts, it is clear that these metals had been in use long before contact was established with Europe. Some of these might have come from the Western Sudan and possibly beyond.[67] The Jos plateau area may have been a source of tin.[68] In Igboland, lead and copper were probably produced in exportable quantities in the Abakaliki area before the fifteenth century.[69]

European advent resulted in the import of brass and copper probably in much greater quantities than before. These came in the forms of bars, rods, rings, ornaments and manillas. One ship in the last quarter of the seventeenth century carried 65,000 copper rods and 10,000 manillas for trade at New Calabar.[70] These metals were widely used as trade currencies or at least as units of account in different areas.[71] But to the smiths, their ultimate purpose was to serve as raw materials. Copper coins were sometimes melted down by the smiths to produce ornaments.

The high demand for imported iron prompted Denis Williams to postulate a theory of "malignant iron hunger" in West Africa throughout the precolonial period.[72] Other researchers have questioned the theory.[73] Igbo traditions offer two main explanations for the high demand for

imported iron. The first was the increasing problem of fuel scarcity. From our calculations above, fuel production took more than half the time expended in smelting.

The second explanation indicates that smiths preferred to forge with the imported iron because it was less difficult than local iron. Imported iron contained less impurities than the local one, and so consumed less charcoal -- a scarce factor -- time and energy. It seems that in some parts of southeastern Nigeria up to the 1850s, perhaps, it was this consideration rather than the cost of imported versus local iron which made the former more attractive to the smiths. But the imported iron was less durable than the local because of the former's high sulphur content arising from the application of coal in smelting in Europe from the 1750s.[74]

In parts of the West African hinterland, local iron was cheaper than the imported one, the price differential varying with the distance from the coast. In c.1819, T.E. Bowdich reported that in the markets of Salaga and Yendi, where iron bars were sold at three times their Cape Coast price, local iron was considerably cheaper.[75] Salaga lies roughly midway between Cape Coast and the northern boundary of Ghana; Yendi lies in the northern third of Ghana.

However, throughout the nineteenth century, there was a steady depreciation in the cost of imported iron, at a period when the cost of smelting iron locally was increasing. In the 1820s, the price of an iron bar in the Niger delta was two and a half shillings (2/ 6d.; 30 d.).[76] Then there were 160 bars to a ton (that is, 1,000,000 grams). This translates to 6250 grams per bar. At 680 grams per hoe, one bar would approximate to nine hoes. The cost of turning a bar into hoes, at 30% of the price of the bar (that is 30% of 30 d.), would be nine pence, giving a total of 39 d. The coast price of a hoe would be 4 1/3 d (39 d. divided by 9).

Let us assume a 200% increase in the cost of an iron bar in the Nsukka - Udi area. This would bring the cost to 7/ 6d. (90 d.). At 30% cost of forging into hoes, this would translate to 117 d. for 9 hoes, or 13 d/ per hoe. By c.1840, the coast price of a bar had dropped to 16 d.[77] Applying the above calculations for the coast and the hinterland prices, the coast price of a hoe made with imported iron would be 2 1/3 d., and 6 2/3 d. in the Nsukka - Udi area. In 1854, the bar had come down to 7 d. This would bring the cost of a hoe produced with it to 1d. at the coast, and 3 d. in the Nsukka Udi area. In 1864, the bar had risen slightly in price to 8 d., making a coast price of slightly over 1 d. Five years later, 1869,

a bar had gone down again to 6 d., bringing down the coast price of a hoe to 2/3 d., the hinterland price to 2 1/2 d.

As indicated earlier, the cost of a hoe made with local iron around 1880 - 1900 in the Nsukka - Udi area was 4 1/2 d. Since the cost of production was rising during the century, it is logical to assume that a local hoe was cheaper earlier in the century. For the purpose of a rough comparison, we may assume conservatively that a hoe made with local iron in the Nsukka - Udi area was cheaper by 25% during the early part of the century. This would give c. 3 d. a hoe. Allowing for a gradual increase in the cost of production, the comparative prices of hoes made with imported and local iron may be expressed as in Table Seven.

TABLE SEVEN: HOE PRICES ON COAST AND IN HINTERLAND AREAS

| Date | Cost of a Bar | Coastal Price With Imported Iron | Coastal Price With Local Iron | Nsukka - Udi Price With Imported Iron | Nsukka - Udi Price With Local Iron |
|---|---|---|---|---|---|
| c.1820 | 30 d. | 4 1/3 d. | 9 d. | 13 d. | 3 d. |
| c.1840 | 16 d. | 2 1/3 d. | 9 3/4 d. | 6 2/3 d. | 3 1/4 d. |
| c.1854 | 7 d. | 1 d. | 10 1/2 d. | 3 d. | 3 1/2 d. |
| c.1864 | 8 d. | 1 d. | 11 1/4 d. | 1/2 d. | 3 3/4 d. |
| c.1869 | 6 d. | 2/3 d. | 12 d. | 2 1/2 d. | 4 d. |
| c.1880-1900 | -- | ----- | 17 d. | ------ | 4 1/2 d. |

The broad implications of the price trend might have been as follows. At the coast price of 4 1/3 d. in c. 1820, a hoe made with imported iron was cheaper in the

southern part of Igboland than one made with local iron which cost about 9 d. But in the Nsukka - Udi area, the hoe made with imported iron was more expensive than that made with local iron. As the price of imported iron increased dramatically as it moved inland, so did that of local iron as it moved away from the points of production. By the middle of the century, the price of a hoe made with imported iron was lower both in the coastal region as well as in the Nsukka - Udi area.

The steady drop in the price of imported iron arose from two technological developments in Europe. The first was improved efficiency in smelting technology which reduced costs. Coal was substituted for wood in c.1750. Later the pudding and rolling processes were discovered which could change brittle pig iron into malleable wrought iron. Then came the invention of the Bessemer converter in the 1850s which made steel and pig iron cheaper than ever.[78]

The second development was the advent of the steam ship which began to replace the sailing ship in the Euro - African trade from c. 1854.[79] It drastically reduced the cost of maritime transportation between Europe and West Africa. This development stimulated competition, as it opened the way for many more trading interests to enter the market.[80]

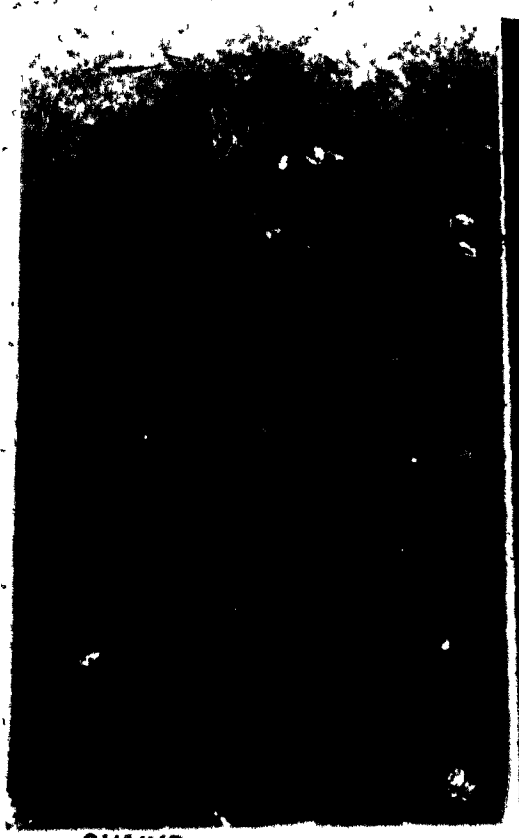
The broad generalisation made from the price comparison above needs to be qualified. Implements made with local iron lasted longer than those made with imported iron. Pole estimates that in Ghana, a hoe made with local iron lasted two farming seasons. But a farmer working with a hoe made with imported iron needed two to complete one farming season.[81] Thus, theoretically, imported iron needed to be four times cheaper than local iron to compete with it. Presumably, some farmers would have been willing to pay for the higher cost hoe produced with local iron.

However, as suggested earlier, the penetration of the hinterland by imported iron was not determined entirely by the price factor. The smiths preferred to work imported iron for reasons stated earlier, although the consumers deprecated their action. Also because the tools and implements made with imported iron wore out fast, the consumption of iron must have increased substantially, creating more jobs for the smiths.

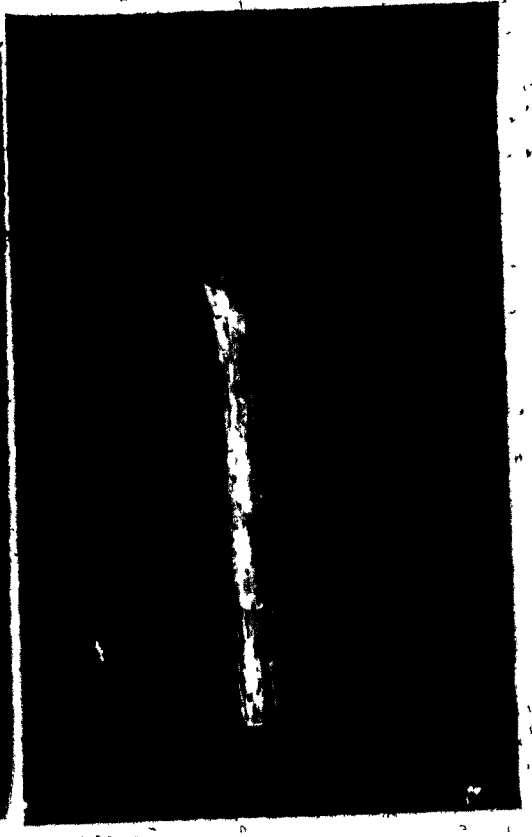
Smelting was not a financially rewarding undertaking in the nineteenth century, though the situation seems to have been different in earlier times. That it continued in some communities into the 1930s or even the 1940s was probably due to non-economic considerations. Apart from



A SMIHY



CHAINS



AN AXE

smelting being associated with procreativity, certain

cultural articles such as those used for some rituals and title taking could be produced with local iron only.

## Section Two: From the Furnace to the Forge

The smelting of iron was the first phase of the iron working process. It was a means to an end; the product of the furnace, local or imported, still had to go through some stages at the forge before it became a final consumer good. It was here that the effort which began with charcoal production was brought to completion; and it is at the smithy that the ultimate purpose of indigenous iron metallurgy may be visualized. The bloom obtained from smelting was usually a pasty mass mixed with impurities such as sand, slag and charcoal. The bloom was heated and hammered so as to expel the impurities. In the opinion of an expert, this was "a tedious work" and "cost a lot of fuel".82

### I. The Forge

The smithy, a small rectangular thatched-hut, was usually located at the entrance to the smith's residence, and a fair distance from it. It measured twelve to fifteen feet in length and was from eight to ten feet wide. Not being more than five feet high, the forge was entered in a somewhat crouching posture. Inside were a variety of work tools. The hearth was a circular

depression positioned at the centre of the forge. Directly behind the hearth was a small mud wall, ekwu eja, about two feet wide and two and a half feet high. The wall shielded the person operating the bellows from the hearth heat. The bellows were connected to a tuyere passed through the short wall into the hearth.

The hammer and the anvil were, perhaps the most important tools from the mechanical and ritual points of view. The hammer was made entirely of solid iron, and measured between nine and twelve inches in length, with a weight of seven to ten pounds. The anvil was made entirely of solid iron, too, and shaped in the form of a nail. The tapered end was struck into a wood block about a foot long, a part of which was buried in the ground. The Abiriba and Ohafia call the anvil nkuma uzu, "the smith's stone",[83] a subtle reminder that there might have been a time when stone was used as anvil. But this must have been a very long time ago, since no tradition recalls the time when stone served as such.

Among the Awka, Nkwere and Udi, it was the practice to bury some pliant and springy stuff, such as the bunches of oil palm fruits and banana tree trunks, at the bottom of the wood block. This gave a springy effect when iron was being hammered out on the anvil. In this way, the full impact on the smith of continual hammering was

cushioned. At present springs from unserviceable motor cars and lorries, beds and bicycle seats serve this purpose.

Other tools found in the smithy were pincers, a wicker basket or a small circular mud wall enclosure and a wooden or earthen bowl, ede. There were two principal types of pincers. One type, which was long, was used to poke at and turn a piece of iron while being heated in the hearth. It was also used to stoke the charcoal fire. A shorter type was used to hold hot iron in place for hammering on the anvil. The wicker basket or mud wall enclosure was used for storing charcoal while the bowl served as a water receptacle for tempering heated iron. Some of the tools were made by the smith himself while others were made for him by his kindred guild.

Here and there in the smithy would be seen such items as broken or worn out hoe blades, knives, traps, gongs and, in some cases, guns, all awaiting repair. A careful survey would reveal the emblematic representation of the god of iron and smithing, tucked away at an obscure corner. It was the protector of the forge, "the eye that saw everything".[84] To the untutored eye, the small smithy would be a jumble of confusion, with tools, unserviceable junk and several other items all squeezed into it.

To the smith, everything was in order, and he had no

problem picking his way through the seeming disarray. His and his apprentices' work positions were marked out with logistical economy. The apprentice sat behind the bellows which he operated, and from that position watched his master turn unfabricated metals into tools. His position was close to the charcoal, and this enabled him to feed the hearth fire with it at the appropriate times. The smith himself squatted behind the anvil, the hearth in front slightly to his left and the edge also to his left. Thus with a pair of pincers in his left hand, he could stoke the fire and remove pieces of iron from there for hammering out on the anvil.

It may be appropriate at this point to comment on a feature of the anvil and the hammer which seems to have escaped the attention of earlier observers. In the literature, the striking surfaces of the anvil and the hammer are described as round.[85] While this descripton is true in the case of most Igbo smithing centres, it is not so in respect of the Udi centres. Their own hammer and anvil had, as they still do, rectangular surfaces with rounded corners.

Udi traditions insist that this difference was not a simple matter of structural detail. It carried great significance in the process of forging, and the quality of items produced. The traditions say that the shape of

their anvil and hammer enabled them to produce varying combinations of shapes, by using the straight edges as well as the rounded angles.[86] This claim seems to tally with the opinion of an American professional smith, Vaclar Jaros. He wrote:

> With our hammer and anvil, we must be able to shape, using all possible combinations of angles and surfaces, curves and flat planes. The right equipment is that which gives the greatest number of those combinations in a quick and controlled manner. In such a way, a great amount of things may be done by free-hand forging.[87]

The Udi people pride themselves as producing items of more refined finishing than their Awka neighbours. The experience of this writer suggests that this is not an egocentric boast, especially in respect to the making of traps.[88]

II. Apprenticeship Training

Smithing was such a lucrative and respected profession that most parents, if they had their way, would have had their sons trained in it. No mastersmith, even if he did not have male children, had any problem recruiting apprentices. The number of apprentices (umu uzu or umu eguru) a smith (nne uzu) had depended partly upon his reputation and partly upon the need to give effective training to the apprentices. The apprenticeship system is probably as old as the profession, and thus an integral feature of it, as indeed, all other professions

in traditional African society. Whether it was in medicine, carving or weaving, children learned from their elders partly by watching, and by rendering such assistance as their strength and knowledge permitted.

Smithing was a jealously guarded profession because of its profitability and the prestige it attracted to its practitioners. From the beginning, it was organized on kinship basis. Uzu di na obara, "smithing is in the blood", is a common refrain of the smiths. The smiths evolved a variety of strategies to confine the technology within their own ranks. These included its ritualisation, the transfer of the skill from father to son or kin, a rigid guild system and a rigorous and tortuous apprenticeship training programme.

Within one village group, the restrictions appear on the whole to have achieved the desired objective. For throughout Igboland, in every community with a well established iron tradition, the iron workers invariably lived as a distinct kindred. It was mainly in the colonial period that the tradition began to break down, when the government introduced legislation prohibiting the restriction of entry into the profession.[89] Marrying a smith's daughter did not, ipso facto, qualify a non-smith to learn and practise the craft. But the male offspring of such a marriage could easily be apprenticed. In Awka,

such inter-marriage had resulted in the diffusion of the technology from Agulu to Amikwo and Umuzuocha before the colonial advent.

Outside the village unit, it was more difficult to limit the spread of the technology to the circle of the established communities. Inevitably, through marriage ties, close friendships between smiths and non-smiths, and long distance travel leading to permanent or semi-permanent settlement by itinerant smiths in their host communities, the technology seeped from its confine. The spread of iron technology discussed in the previous chapter was effected mainly by smelters and smiths who left their kindreds and settled in new communities, or stayed in such places for a considerable length of time.

Even when the technology was diffused by these means, the apprenticeship system helped to ensure that the new recipients operated within the framework designed by the establishment. In this way, both the old and the new shared and guarded the same professional ethics and interests. This was one way by which the parent centres tried to retain some influence over their offspring. The effectiveness of the influence was related to the proximity of the new places to the old.

(a) Preparing for Apprenticeship

For the son born into a smithing family, informal apprenticeship could start as early as the age of four years or so when he began to play in and around the father's forge. He fiddled with the tools as they caught his fancy, and might run minor errands appropriate to his age. In Nsukka and Udi, the older centres, the traditions insist that a person with no blood relationship to a smith was never apprenticed in pre-British times. But in other centres such as Abiriba, Awka and Nkwere, non-smiths could be apprenticed but this was very sparingly and under very strict conditions.

For a boy from a non-smithing lineage, before being apprenticed, the parents had to make a formal request to the smith they wished to train their son. The request was accompanied by drinks and other traditional presents. If the smith accepted the request, the terms of the training were then spelled out by the smith or by his lineage elders. This amounted to a declaration of the obligations and the responsibilities of both parties. The smith stressed the long period of the training, the hardship involved as well as the patience and self-discipline it required.

Usually a training fee was charged but the methods of payment varied. The apprentice might be required to work

for his master for an agreed period of time, ranging from a full year to two, after his training. It could be agreed that after his training, he share his annual income for a period of time with his master. On his own part, the smith pledged to bring up the apprentice in the best tradition of the profession.[90]

The arrangement was sealed with a sacrifice at the shrine of the lineage iron deity. This was conducted by the priest of the deity who solicited it to accept the new trainee and protect him from the hazards of the forge and long distance travel. In some instances, a blood covenant, igba ndu, was contrived between the smith and the trainee's parents. The rationale was to ensure that each party kept its own part of the bargain. The act also brought the two families into a ritual kinship.[91] In this way, the parents of the trainee were assured that the smith would treat their son as his own.

In all this arrangement, the senior members of the smith's lineage had to be present. It was they who constituted the governing council of the lineage's guild of smiths. Every smithing kindred or lineage had its own guild which was the sole controlling authority in the organisation of the profession. The guild made the regulations governing the conduct of members, controlled entry into the profession, set the standard of training

and regulated the quality of products. It imposed strict sanctions, including in some grievous offences, the excommunication or even the banishment of the offending smith. In the absence of a written tradition, keeping the members together as a well knit unit was perhaps the most viable way of perpetuating the technology. And a close, kin-based group appears ideally suited to the training and transmission of the skill from one generation to the next.

(b) The Training Programme

Although for the child born in a smithing family informal training started quite early in life, formal training for most apprentices started at ten to twelve years. This was the age at which they were considered reasonably strong to operate the bellows and to participate in not too distant travels.

The duration of apprenticeship training varied, and was influenced by a variety of factors such as the age of an apprentice, his aptitude, his comportment and the range of products he was training to produce. An apprentice who began training at an early age was likely to spend a longer time on the job than one who began at a later age. Training to produce simple items such as hoe blades, knives, matchets and razors took less time, perhaps not more than three years, than learning to produce the more complex ones such as leg coils, traps and guns. In

Abiriba, apprentices from other communities could only be taught to produce the simple items. The more complex ones were reserved for apprentices from the smithing kindred.[92]

By the nineteenth century, an advanced degree of specialisation had emerged in the smithing industry in centres such as Abiriba, Awka, Nkwere and Udi. Some smiths were concentrating in the production of iron implements, and were known as uzu ike; some in gun production and repair, and were know as uzu egbe; while others specialised in producing brass and bronze objects, and were referred to as uzu ola. Whatever the type of production an apprentice was learning, devotion to duty, obedience and good manners were continually emphasised. A stubborn or lazy apprentice was doomed to remain a trainee longer than his colleagues, irrespective of his technical mastery of the skill.

The entire training programme was so designed as to pass the apprentice through a circuit of a well graduated experience. He was expected to acquire in the process not only the technical competence required in the job but also the requisite professional ethos and esprit de corps. For how to conduct oneself as a member of the dignified profession was an important objective of the programme. A well trained smith was expected to behave like a worthy public relations agent of the profession to the wider

public. Thus the mastersmith would constantly remind the over-zealous apprentice that the training could not be rushed: Ndiga akuta n'ogbon.[93]

The apprentice must start with the humble functions of working the bellows and keeping the forge and its surroundings clean before each day's work. He accompanied his master in preparing charcoal, and ran various errands for him and his wives. In time, he would be expected to take the master's products to nearby markets to sell. Whenever they went on a tour, he carried the work kit. Although only a trainee, the apprentice was a vital component of the work force; no smith could operate effectively without him.[94]

While working the bellows, the apprentice must at the same time watch his master carefully to see how he forged different items. The smith on his part explained patiently to him all the stages in forging tools and other items, stressing points as he thought it necessary. As the apprentice developed in experience and basic skill, he was permitted, under the watchful eye of his master, to try his hand at the production of the simplest articles such as needles (mkpisi), razors (aguwa) and arrow heads. From these simple manufactures, he moved on to the less simple such as hoe blades, matchets and knives. The process continued, slowly, step by step, until he reached

the end of the training scheme.

For the uzu ola, the most delicate production was the leg coil which, as Basden observed, required "much technical ability".[95] For the smiths concentrating on

GUNS AND TRAPS

LEG COILS AND MULTIPLE GONGS, SWORDS

RITUAL STAFFS, SIMPLE ORNAMENTS

SIMPLE GONGS; AXES

HOE BLADES, MATCHETS SIMPLE ARLETS

NEEDLES, RAZORS, ARROWHEADS

OPERATING THE BELLOWS

TRAINING LADDER OF APPRENTICESHIP

iron implements, the sword was perhaps the most ambitious product. Until the early part of the eighteenth century, the training calendar might have terminated with the production of leg coils, multiple gongs and swords. By c.1745-1775, a new step had been added to the existing programme, namely, the repair and production of animal traps and guns. About these items more will be said.

In going through the programme, the apprentice was closely supervised by his trainer. Every mistake he made was corrected patiently. He was made to repeat each process as many times as it was necessary, until he

mastered it. The training could last from three years to as long as fifteen, depending upon the type of items the apprentice was training to produce. The repair and production of guns, for instance, took the longest period to learn, while the production of hoe blades took a shorter period. Thus an apprentice who started training for gun production at the age of twelve years graduated at twenty seven.

It is difficult to name the first tools produced by the earliest smiths and or sketch the chronological order in which new products were added to the original ones through the centuries. Brian Fagan suggests that during the Early Iron Age, iron tools were confined to small functional artifacts such as arrowheads, spearheads, razors and occasionally, hoes.[96] If so, the training calendar sketched above could represent a mnemonic symbol of the evolutionary stages of the smithing technology in the Igbo area. In an insightful work song, Ude Nwuma, a veteran smith from Aku; posed the following questions:

> Is there a smith who can make a hoe but can't make a needle? Is there a smith who can make a gong but can't make a hoe? Is there a smith who can make a gun but can't make a title staff?[97]

The inner logic of this song seems suggestive enough: competence in the production of the complex items implied a mastery of the more simple ones. Even when an

apprentice was training to produce a specialised item such as a gun or a trap, he still had to learn how to produce some of the other simpler items.

(c) Graduation

When the apprentice had completed his programme successfully, his master organised a passing out ceremony on his behalf. This was known as ima otutu or ihe otutu, "the blessing of the hammer".[98] All the smiths in the master's lineage and those from the neighbouring communities were invited to the occasion. It involved a lavish entertainment of the invitees, and lasted from two to four days. While the merriment was going on, the invited smiths would be busy producing the essential tools with which the graduand would start off on his own. The tools were an anvil, a hammer and some pincers. These could not be bought in the market.

The anvil was forged from pieces of iron which were heated and consolidated into a solid block. It was the most difficult to produce. Not less than four bellows operating simultaneously were used in the production. This was necessary to generate enough heat to make the iron block workable. Generally, this was done in the cool of the night so as to mitigate the intensity of the heat produced by the working bellows.

The tools produced for the apprentice were then

presented to the smithing deity for blessing. All the rules of the profession and the graduand's rights and obligations were rehearsed to him. The graduand then promised to work according to the rules. The tools were then handed over to him. He had become a full fledged smith and could thence practice on his own.

Ima Otutu was a dramatised certification that the graduand had been found "worthy in character and learning" to be admitted into the membership of the smiths' guild. The ceremony was an event of special significance to the graduand, his parents and to the trainer as well. To the graduand, it was a fitting finale of a long, trying journey and the dawn of a new and promising era. To the parents, their son had come of age, and had developed those sterling qualities associated with the smithing industry. To the trainer, the occasion was a public attestation not only of his competence as a craftsman but also as a teacher.

Usually, during the first few years after his graduation, the young smith worked in close consultation with his erstwhile master. He consulted him whenever he was confronted with a job he could not do all on his own. The former master passed on to the graduand some jobs commissioned to him by customers, if he was hard pressed with work. When the former master went on tour, the young

smith joined his troupe so that he could be introduced to his former master's friends and customers. Often, the relationship established during the training between the apprentice and the smith lasted throughout their lives.

## III. Production and Work Ethos

### (a) The Demands of Production

"No lazy person can be a smith" is a popular rhyme of Igbo smiths. This is not an arrogant claim. Smithing, like smelting, required a lot of hard work and expenditure of considerable physical energy. It also called for a great deal of imagination and endurance. These were some of the qualities the apprenticeship training was designed to inculcate. The smiths had no fixed hours of work. In general, however, a normal day's work began around five o'clock in the morning and ended at five in the evening. Two break periods totalling approximately two hours were observed, one for breakfast and the other for lunch, giving ten working hours.

If there was some pressure to complete a certain job on schedule, work could start before midnight and last till day break. During the peak of the farming season, there was always great demand for farming implements. The smiths had to work extra hours to meet the rush. The apprentice must get up from bed before his master, lay out

the work tools and make the forge fire. Dick Achonwa of Umuko, Nkwere, recalled that during his apprenticeship, whenever his master got up before them, he usually roused him and his colleagues from bed by pouring cold water on their naked bodies.[99]

Every smith began his day's work with an invocation to the god of smithing to join in the task ahead and to protect the smithy from evil forces. The forge fire was kept aglow through draught supplied from the bellows pumped by the apprentice. A piece of iron to be forged was buried in the burning charcoal. When sufficiently heated, it was withdrawn from the fire by the smith with a pair of pincers and hammered and shaped on the anvil as many times as he could before it cooled and hardened again. This process was repeated several times until the forging of the item was completed.

Continual striking on the anvil with a hammer weighing seven to ten pounds was by no means a light job. From ancient times, the smith has never been a robust looking man because the weight of the hammer saps his strength just as the fire "wasteth his flesh".[100] Nor did hammering involve merely the striking of the object on the anvil. An experienced Agulu Amokwe smith indicated that the hammer is a dynamic tool and that it is important how it behaves when it is being struck. When lifted, it must

descend along the required path without turning and twisting and must land on the object at the right spot.[101]

According to an Igbo adage, there is nothing a smith cannot produce if asked to do so. Read literally, this is an exaggerated statement; but it does seem to underscore three basic truths. First, the smiths in the past produced a variety of items which served the needs of the society. Second, the catalogue of the smiths' products expanded with the passage of time. Some of the products were created out of indigenous initiative and imagination; some had a European inspiration.

Third, the smiths did not confine themselves to works in iron. They worked other forms of metal such as brass and copper. From the Igbo-ukwu artifacts, it is clear that bronze casting in the Igbo area goes back at least to the ninth century, probably earlier. Harble's Ezira digs suggest that the technology was still carried on in the fifteenth century. In 1930-31, Jeffreys, a colonial administrator in the Awka district, had two bronze bells cast for him at Awka.[102]

(b) Quality of Products

The products of the smiths can be divided into two broad groups -- those serving utilitarian purposes and those for socio-cultural ends. Some products, though,

served both functions, such as spears and swords. Products in the former category ranged from the simple, such as needles, arrowheads, hoes, door hinges and staples to the complex, such as animal traps and guns. In the latter category were included wristlets, anklets, bangles, leg coils, pendants and ritual and title emblems. On the whole, the utilitarian products were mostly made of iron, while most of the ornaments and title regalia were usually made with brass and copper.

Although the tools used by the smiths were few and unsophisticated and the workshop simple, the quality of their products was high. Every guild was fussy about the standard of the workmanship of its members, a situation that Nigerian consumers of industrial products might well be envious of today. Earlier, reference was made to the Igbo-ukwu artifacts and the verve and artistic virtuousity of the production. The finesse of the Ezira artifacts suggests that the tradition of high quality production demonstrated at Igbo-ukwu continued in the fifteenth century. A seventeenth century illustration of swords made in Igboland confirms the continuation of the tradition. According to the report, the swords could be bent nearly completely over.[103]

From c.1830, Europeans began to venture beyond the coastal periphery of the Niger delta into the hinterland.

Thence, more explicit evidence of the quality of the Igbo metal products started to appear in their reports. In 1854, B.W. Baikie, on his journey up the Niger to Lokoja, remarked on the quality of swords, spears and ornaments of Igbo production. He stated that he had seen these products with his own eyes and could "testify to their being very neatly finished".[104] Reverend J.C. Taylor of the Niger Mission, in his diary entry of November 4, 1859, recorded meeting an Awka smith at Onitsha, who showed him brass keys he had produced. He remarked that,

> The workmanship and curious embellishment he had wrought on them and the dexterous composition that he had used reflect great credit on him.[105]

Similar glowing reports about the quality of Igbo metal products were made by A.B. Harcourt in 1896, Leonard in 1896 and Reverend Basden in 1901.[106]

In respect of the functional implements made with local iron, the quality appears to have lain more in their durability than refinement. As indicated earlier, products made with local iron were more durable than those made with imported iron. In Nigeria today, the parlance, okpuru Igbo, meaning 'Igbo made' is used, sad to say, as a term of derision to describe a product of sturdy quality but lacking in polished finishing. This slogan was coined during the colonial era and was used to discriminate against local products in favour of British imports. In

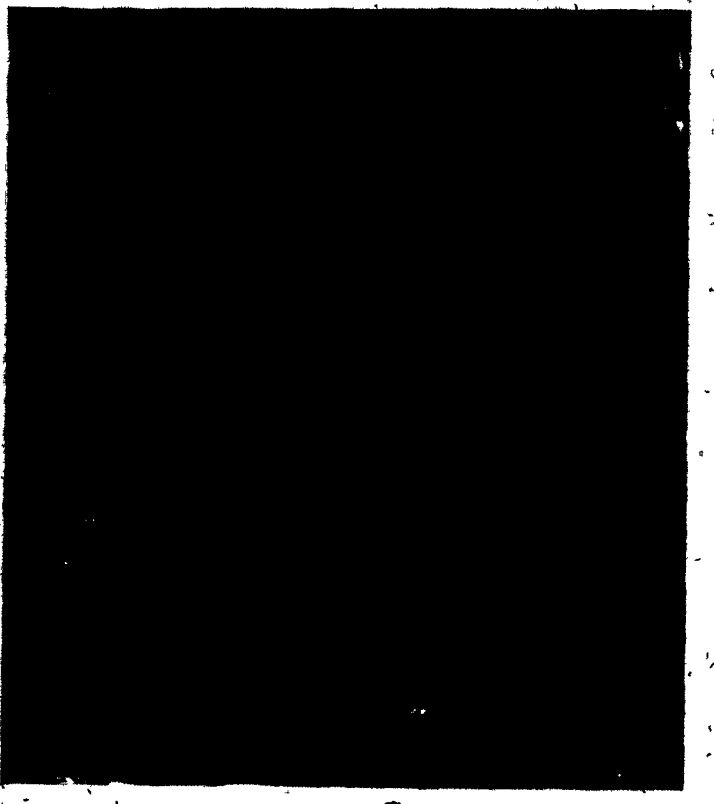
the same way, the term "occupied Japan" was used sarcastically to describe cheaper Japanese textiles and rubber boots imported into Nigeria in the late 1940s and 1950s.

The origins of most of the smiths' products predated the advent of the Europeans on the Bight of Biafra. European contact led to the introduction of new products like keys and padlocks, door hinges and staples, traps and guns. Adaptive entrepreneurs, the smiths progressively incorporated some of the imports into their fund of manufactures. The process was through self-teaching and experimentation, not through formal transfer of the technology. Modern technologists refer to this as "copy engineering". This strategy is currently being prescribed for Nigeria by some of her top technologists and scientists as the most promising option to her genuine technological and industrial take-off.*

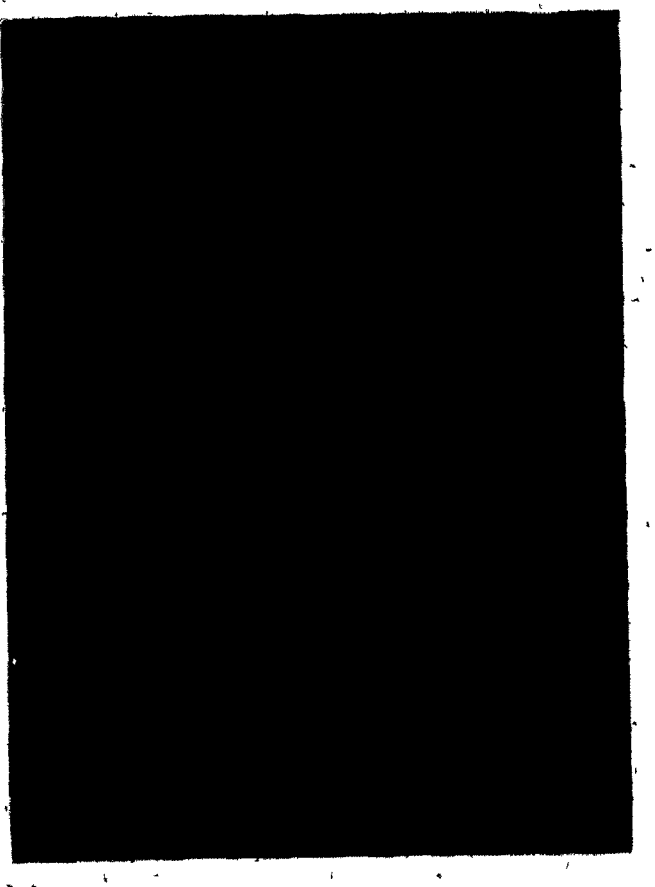
(c) Gun and Trap Production

Among the imports the smiths incorporated into their catalogue of manufactures, two — animal traps and guns — deserve special mention, particularly the latter. Trap production started, perhaps, in the late eighteenth

* For example, Professor Ezekwe of the Nigerian War Museum expressed this opinion on Nigerian television on March 18, 1985.



TRAPS



A FLINT LOCK GUN

century with simple repairs, including the replacement of worn out parts. By the mid-nineteenth century, many smiths seem to have been producing the entire implement in Abiriba, Awka, Nkwere and Udi.

To produce a trap was not a simple job. It required a great deal of manual dexterity. The smith had to produce twelve components of varying degrees of complexity. The production of such components as the spring and the 'quick retreat', entailed a delicate and complicated steeling and annealing process so as to obtain the required hardness and springiness.[107] The parts, when coupled, needed to fit into a functional whole. This implies accurate measurement and instrumentation.

Gun repair and production is interesting because it provides a unique example of the transfer from a factory to a handicraft method of production. Three main types of guns were involved -- the flint lock (egbe cham), the percussion (egbe efere), and the 'Dane' gun (egbe okwa). The flint lock, apparently the most widespread in West Africa, was first imported into the region from Antwerp in the fifteenth century. From then to the nineteenth century, firearms were a regular import item.[108] "It was in the nineteenth century, however, that mass production in the cities of Liege, Birmingham, and Manchester led to massive imports into West Africa.

In the southern Nigeria area, we first learn of firearms in the Benin kingdom. According to Joseph Egharevba, these were imported in the late fifteenth century, and were first used by the Bini army in 1515-1516.[109] This was in the war against the Igala kingdom which was referred to earlier. In Igboland, the first mention of firearms was in connection with the Akpa - Aro alliance against the Ibibio, perhaps in the first quarter of the seventeenth century. The success of the alliance is usually attributed largely to the use of blunderbusses by the Akpa.[110]

Isichei suggests that firearms were imported into the Niger delta in the seventeenth century only as gifts to the delta chiefs.[111] Her suggestion seems to be in accord with the opinions of R.N. Henderson and David Northrup.[112] The Akpa are thus thought to have obtained their firearms exceptionally early. From Equiano's account, it is clear that by the 1740s, firearms were being peddled extensively in the Igbo hinterland, as traders from "a great distance come to our market ... [and] generally bring us firearms and gun powder".[113] Whether the firearms Equiano referred to were imported or locally produced, it is difficult to say. Aro trade in imported goods included firearms and ammunition which they distributed as far west as Onitsha and as far north as Igumale in Idoma.[114]

There is no explicit evidence to show when the Igbo smiths began to experiment on gun repair and production or which of the smithing communities pioneered it. Indirect evidence, however, suggests that Nkwere smiths seem to be the most likely pioneers. Throughout all of Igboland to date, Nkwere people have traditionally been referred to as Nkwere opi egbe, "Nkwere, the gun makers". Even the other smithing communities refer to them by this name.

The Nkwere people themselves say, perhaps with justifiable pride, that the accolade was not self-claimed, but was rather bestowed on their forefathers by their customers in recognition of their expertise in this craft. Among the Ohafia and Igbere peoples, there is a common idiom which urges a man thus: ibe gi gbaa kujia, gbaa kujia, Nkwere obigi ibe woro aniwo. Translated literally, this means "when your bitter enemies fire their guns to the point of breaking them, you, too, should do the same; after all the Nkwere do not reside only in their community".[115]

In his Intelligence Report on Nkwere town in 1931, Charlton K. Meek emphasised the people's ability in gun production:

> ... the people of Nkwere, practising the art of blacksmithing, could make flint lock guns, provided they obtained a piece of gas pipe for the barrel, and could convert flint locks to percussion locks.[116]

In his own observation, Basden pointed out that gun barrels were produced locally but that these were usually not strong enough to withstand the strain of exploding gun powder.[117]

Nkwere oral traditions do not recall who started gun repairs and production in the community. The balance of opinion is that the Umuko lineage has all along been the leading expert in the craft. It seems likely that Umuko people were the pioneers of gun-smithing, though the initial experiment was probably made not in the home community but in the course of their itineration. Circumstantial evidence would suggest that the epithet, opi egbe, was being applied to Nkwere smiths in the Onafia area by c.1792-1822.[118]

Gunsmithing probably started by trial and error as the smiths began to produce spare parts to replace worn out ones. Incidentally, the guns imported from Europe were in constant need of repair because, as Captain John Adams pointed out in 1823, they were of a "very inferior description".[119] Oral traditions observe that several of the guns could not fire at all, some burst on firing while others became unserviceable after a brief use. Eke Palu, in his autobiography recorded an incident at a festival in Onafia when a gun exploded in the hands of the holder, killing him.[120] In the next chapter we will come across

the story of a Bamenda chief who owned some hundreds of unserviceable guns.

The necessity to prevent misfiring or accidental discharge apparently induced the smiths to experiment on converting flintlock guns to percussion cap guns. Basden put the advantage of the latter as follows:

> The gun which could be discharged by means of a percussion cap was, for the native, a distinct advance, in as much as the risk of a misfire was lessened. The hunter could not always be sure that his touch powder was dry enough to explode.[121]

From his ability, as it were, to rectify European mismanufactures, one smith in Nkwere gained the appellation, Beke Meluo, meaning, "when the Europeans produce amiss [you correct the errors]".[122]

How long the journey from the repair of simple gun parts to the complex job of producing the complete implement or of converting flintlocks to percussion caps took is difficult to estimate. Given the manual dexterity required to produce the components, one is inclined to suspect that a considerable period of experimentation was likely. However, Nweze of Umugwu Ekwom, Eha Alumona, observed that anya eguru bu oka: "the eyes of a smith are a photographic artist".[123] They record and reproduce observations with an incredible speed and accuracy.

Fascinating stories abound in some of the smithing

communities in Igboland about smiths who, by an ingenious application of initiative, imagination and even extra-sensory perception, easily produced or repaired items about which they had little or no previous knowledge.[124] Nwachukwu Nwanyanya of Umubele, Awka, explained the smiths' ingenuity in this way:

> To learn anything, you must have sharp eyes and an alert mind. Your mind must hover around it, live in it and out of it -- at work, dinner and sleep -- always.[125]

The repair, production and conversion of guns may be assumed to be the peak of the development of iron technology in Igboland before this was snuffed out by the colonial advent. The main components of a gun were the trigger (utu egbe), the spring (mgbugba egbe), the percussion cap (aka egbe), and the trigger protector (ogodo egbe). The others included the rings (ola egbe), the bolts and the gauging rods (nkpara egbe). Each of these components was produced separately with an eye for precision as they had to fit into a smoothly functioning unit when coupled. With no mechanical device to aid the smiths, the job demanded a lot of patience and manual skill, and stability of the nerves.

The quality of the guns produced by the smiths was commended by Basden, remarking that "the stocking and fittings were so well executed that one could scarcely distinguish the result from English made articles".[126]

The smiths referred to works of this kind as uzu ńka -- metal working requiring a great deal of artistic skill -- as distinct from uzu ike, which required more brawn than brain. It was because of the skill gunsmithing required that the apprenticeship training for it took as long a time as indicated earlier.

IV. Productivity of the Smiths

It is less difficult to show that the quality of the smiths' products was high than to attempt a quantitative estimate of their production level. However this may be, from reports of foreign travellers and missionaries in the nineteenth and early twentieth century, and from oral data from the field, some rational extrapolation is possible. The production capacity of smiths, needless to say, varied according to their physical conditions, skills and the type of articles produced.

The arduous nature of the profession required a smith to be in a state of physical fitness to be optimally productive. Also the more skillful and experienced a smith was, the higher his level of productivity was likely to be. He would bring his experience and skill to perform, with seeming ease and in a short time, a complex operation which might baffle the less experienced and take him a much longer time. Simple articles such as needles,

razors and arrowheads took a much shorter time to produce than such complex ones as leg coils, ritual gongs, traps and guns.

Foreign visitors who observed Igbo smiths at work expressed surprise not just at the quality of their products, but also at their rate of production. During their journey down the Niger, John and Richard Lander remarked that "notwithstanding the few tools that are used by working smiths, their quickness and ingenuity cannot be excelled, even by a European professing the same trade".[127] In 1854, Reverend Taylor commissioned an Awka smith at Oko town to produce for him some building materials such as hinges and staples, bolts and nails, for the erection of a mission residence at Onitsha. Before seven days, the job had been completed, well ahead of Taylor's estimate. The smith was paid an equivalent of L1.12.6 d.[128]

Reverend Basden reported his experience when he visited a smithy in 1901. Within minutes, the smith had produced a needle, "the eye and the point being complete without being filed or ground".[129] In modern advertising parlance, this could be captioned 'Done While You Wait'. The smiths' philosophy, however, was that a high quality product did not need advertising; it sold itself. In another instance, Reverend F.W. Dodds of the Methodist

Mission, Uzuakoli, remarked, "I have always stood and admired the skill and speed of these various craftsmen"[130] -- smiths, carvers and weavers alike.

The commonest product of the smiths was perhaps the hoe. Incidentally, it was one product which the European imports did not and have not been able to displace. During the colonial period, European type and Indian hoes were imported into Igboland. The attempt soon fizzled out as the imported hoes did not meet the requirements of the farmers. Hoes were in general demand throughout the year, but the peak of the demand was in the planting season, February to May, a total of 120 days. The slack period covered the months of June to January, a total of 245 days.

In the estimate of the productivity of an average smith made below, the hoe has been used as the standard article of production. A film was shot at Awka on April 23, 1923 for the British Empire Exhibition of 1924 held at the Wembley Stadium. This showed a smith, David Nwumeh, making a hoe from a plain strip of iron. "This particular hoe", it was reported, "was made in about 40 minutes".[131] In a normal day of ten working hours, Nwumeh would produce about fifteen hoes.

Nwumeh's production rate appears to have been exceptionally high. Most smiths interviewed gave normal

daily production rates ranging from four to six hoes during the slack season, and six to eight during the peak season. Average productivity of five hoes per day in the slack and seven in the peak seasons would seem to be fair estimates. A full time smith usually worked for three days in the four-day week, izu; sometimes, all the days of the week. The traditions indicate that during the peak season, one day in every twelve (that is three izu) was used for charcoal production while one in sixteen (four izu) was used during the slack season. From these estimates, the average smith's normal productivity may be calculated as follows:

Production During the Peak Season

| | | |
|---|---|---|
| Days in the season | 120 | |
| Actual working days (3/4 of 120) | 90 | |
| Less charcoal production days (1/12 of 90) | 83 | |
| Hoes produced (83 X 7) | 581 | |
| Cost of one hoe (approximately) | 3 | d. |
| Cost of a smith's labour for a hoe (30% of 3 d.) | 1 | d. |
| Smith's income for the season | 581 | d. |

Production During the Slack Season

| | | |
|---|---|---|
| Days in the season | 245 | |
| Actual working days (3/4 of 245) | 184 | |
| Less charcoal production days (1/16 of 184) | 173 | |
| Hoes produced (173 X 5) | 865 | |
| Cost of one hoe (approximately) | 3 | d. |
| Cost of smith's labour per hoe (as above) | 1 | d. |
| Smith's income for the season | 865 | d. |
| Total income per year (581 + 865) | 1,446 | d. |

The above estimate translates to an income of 12/ 6 d. per

month; 4 d. per day, and 5 d. per actual working day, including days used for charcoal production. It seems clear that smithing was a more lucrative profession than smelting, at least in the nineteenth century. In the absence of any living cost index, it is difficult to relate the above income to purchasing power. However, the traditions are unanimous that an equivalent of even a penny could comfortably feed a family for days, particularly because the staple food crops were planted by the women. Basden observed correctly that before colonial rule led to massive importation of metal wares, smithing was a "sound money-making venture".[132]

It needs to be emphasised that the calculations made above relate not just to the average smith but to income from smithing alone. The more specialised smiths such as gun producers earned a lot more. Meek in his Report on the Nkwere noted that "the business of gun making, conversion and repair was in those days the most lucrative".[133] Besides, as will be shown in the next chapter, the smiths were involved in other sidelines from which they derived a substantial income.

Even if he had made no extra income from sidelines, the average smith would still have earned more than most other citizens who did not practise the craft. It is instructive, for instance, that in the 1930s and 1940s,

many public employees in Nigeria were earning less than the average smith in the nineteenth century! In 1932, unskilled labour was employed at ten shillings per month in the Awgu district while in the Nsukka district, it could easily be obtained at four pence per day. A road labourer earned ten shillings a month, the road overseer, fifteen.[134]

V. Summary and Conclusion

Contrary to the generally received notion, the traditional iron technology of the Igbo was complex and varied. Although production was cast within a ritual - mystic mould, it is certain that the actual processes were carried out along rational scientific lines. Prior to the nineteenth century, it seems that imported iron supplemented local smelting. The roles seem to have been reversed later: local production supplemented imported iron. The continuation of smelting in some communities into the twentieth century might have been based more on cultural considerations than on its economic viability.

The smiths demonstrated a capacity to absorb and integrate exotic concepts and products into their fund of skill and range of products. Within the constraints imposed by the technology available, the smiths' products were of high quality. The production processes illustrate the people's attempt to exploit their environment; and the

tools and implements can be seen as the outward signs of the peculiar ideas in their minds.

The smiths were hard workers, fussy about sound job training and standards of workmanship. Their work ethic is reminiscent of the Protestant work ethic. Although this did not lead to an industrial revolution -- among other considerations, because of the lack of an adequate technological base -- it did lead to capital accumulation of sorts in the form of wives, slaves, clientele, guns and titles. How this would have developed in the coming generations without colonial intervention is a matter for speculation. It seems reasonable to suggest that in the course of time, the smiths would have continued to gradually improve the technological foundation of the society.

## CHAPTER THREE: ENDNOTES

[1]Forbes, (i) Studies in Ancient Technology, Vol. VIII, pp. 78-82; (ii) Studies in Ancient Technology, Vol. X, pp. 175-176.

[2]Cline, Mining and Technology, chapter 13.

[3]Ibid., p.123.

[4]Ibid., p.114.

[5]Ibid., p.126.

[6]Barnes, "The historical background of Ogun"; For other parts of West Africa, see, R.U. Sayce, Primitive Arts and Crafts, (New York, 1965); Camara Laye, The African Child, (London, 1954), p.18; G. Dieterlen, "A contribution to the study of blacksmiths in West Africa", in Pierre Alexandre (ed.), French Perspectives in African Studies, (London, 1973), pp. 40-61; M. Bredohl, "The blacksmith Village of Yohonou", The Anvil's Ring, 8, 21980, 18-24.

[7]Aleke Nweze, IHT 90, Umugwuogu Ekwom; Eha Alumona, 16 Oct. 1984; Lazarus Ugwuja, IHT 83, Umugwu Ekwom, 11 Oct. 1984.

[8]Dick Achonu, IHT 165, Umuokwaraoji Nkwere, 2 March 1985; Ezekiel Asugha, IHT 184, Obinuhu, Nkwere, 28 April, 1984.

[9]Richard Okanya, IHT 32, Amogbo Aku, 10 July 1984; Jonathan Odo, IHT 87, Umuanya Umundu, 14 Oct. 1984; Makarius, "The blacksmith's taboos", pp. 25 - 48; J.N. Ezike, "Iron technology in Aku -- a mystery or dexterity?", Okikpe, 2,1(1982), 15-16.

[10]Aneke Nwigbo, IHT 111, Agulu Umana, 27 Nov. 1984; John Ezike, IHT 249, Akibite Aku, 20 June 1985.

[11]Ogbo Agbo, IHT 77, Umuaya Umundu, 25 Sept. 1984; Ebenechi Eze, IHT 56, Agulu Amokwe, 27 Aug. 1984.

[12]Albert Eze, IHT 141, Umuokpu Uhunowere, 3 Feb. 1985.

[13]Afigbo, The Age of Innocence: The Igbo and Their Neighbours in Precolonial Times, Ahiajoku lecture series, (Owerri, 1980), pp. 24-25; Onwuejeogwu and Onwuejeogwu, "The search for the missing link", p. 10; H.M. Waddell, Twenty Nine Years in the West Indies and Central Africa, (London, 1863), p. 326.

[14]These are Aku, Amube Orba, Aboriba, Amuzu Uhunowere, Agulu Umana, Agulu Uwani, Eha Ndiagu, Obukpa, Umundu and Uturu Okigwe.

[15]James Maduka, IHT 58, Ugwuogu Uturu, 29 Aug. 1984; Pius Egwim, "Aspects of the precolonial history of Otanchara - Otanzu communities in Okigwe division", Special Project in History, Nsukka, 1977, pp.23-24.

[16]Okafor Okorie, IHT 10, Aku, 26 Nov. 1982; Odo Nwagbaji, IHT 60, Dimotue Aku, 5 Sept. 1984.

[17]Mark Ogbonna, IHT 80, Umuojogwu Umundu, 7 Oct. 1984; Onyishi Umuikpa, IHT 86, Umuikpa Umundu, 14 Oct. 1984; Ugwuade IHT 26, Umueri Umundu, 4 July 1984.

[18]Ugwu Ugwuanyi, IHT 89, Okpulu, Eha Ndiagu, 15 Oct. 1984; Madu Nweze, IHT 85, Umugwu Ekom, 13 Oct. 1984.

[19]Williams, Icon and Image, p.95.

[20]L.M. Pole, "Decline or survival? Iron production in West Africa from the 17th to the 19th centuries", JAH, 23(1982), 503-513; J.H. Vaughan, "Nkyagu as artists in Marghi society", in W. d'Azevedo (ed.), Traditional Artists in African Societies, (Bloomington, 1973).

[21]Pole, "Decline or sruvival?", 503.

[22]Ama Orji, IHT 227, Ugwuogwu Uturu, 31 May 1985; Okafor Okoli, IHT 101, Uwani Amokwe, 6 Nov. 1984; Obioma Okoli, IHT 102, Uwani Amokwe, 6 Nov. 1984.

[23]Forbes, Studies in Ancient Technology, p.106.

[24]The man-hours expended by the women have not been included in the quantification mainly because the women were also involved in other activities not geared directly to the job at hand.

[25]This average is derived from accounts from different communities.

[26]Joseph Oke Ozioko, IHT 45, Umakashi, Nsukka, 7 July 1984; Jonathan Ugwuanyi, IHT 200, Edem Ani, 21 May 1985; F.N. Anozie, IHT 217, Nsukka, 28 May 1985.

[27]Amu Agu, IHT 66, Ama Uwani, Aku, 6 Sept. 1984; Ugwu Nwajama Nwodo, IHT 92, Orba, 19 Oct. 1984.

[28]Okpo Igurube, IHT 64; Ana Uwani, 6 Sept. 1984; Nnaji Omekwu, IHT 105, Umuabia Umuagbo, 7 Nov. 1984; Odio Ezejiofor, IHT 107, Agulunta, Agulu Umana, 7 Nov. 1984; Ignatius Odoh, IHT 88, Umuanya Umundu, 14 Oct. 1984.

[29]Merrick Posnansky, "Hani and Debibi", Nyame Nkuma, 7(1975), 16-23.

[30]C.L. Goucher, "Iron is iron 'til it is rust: trade and ecology in the decline of West African iron-smelting", JAH, 22(1981), 179-189, 182.

[31]H.W. Fowler and F.G. Fowler, with J.B. Sykes (eds.), The Concise Oxford Dictionary of Current English, 7th edn., (Oxford, 1983), p.210.

[32]Louis J. Mahalyi, "Charcoal from the Zambian forest", Geographical Magazine, XLV, 3(1972), 212-218.

[33]Posnansky, "Hani and Debibi", 15-23.

[34]Anozie and Ray, "Archaeological evidence", 22.

[35]Ibid.

[36]O.N. Njoku, "The symbiosis of agriculture and iron working in Igboland", paper read at the Conference of the Canadian Association of African Studies, Antigonish, May, 1984.

[37]S.E. Nicholson, "The methodology of historical reconstruction and its application to Africa", JAH, 20, 1(1979), 31-49.

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[41]E.E. Okafor, "A study of iron-working in Orba - Nsukka", M.Sc Dissertation, Ibadan, 1984, pp. 23-24.

[42]Anozie, "Traditional iron smelting in Umundu", paper read at the workshop on the Foundations of Igbo Civilization, Nsukka, 1980, p.5.

[43]Pole, "Iron working apparatus and techniques: upper region of Ghana", WAJA, 5(1975), 11-39.

[44]J. Duncan, Travels in West Africa in 1845 and 1846, Volume II, 1968 imp. p. 131.

[45]Anozie, "Agba - Nwofe", 1-9.

[46]Ugwu Ugwuanyi, IHT 89, Eha Ndiagu, 15 Oct. 1984; Lazarus Ugwuja, IHT 83, Umugwu Eha, 11 Oct. 1984; Richard Ugorji, IHT 274, Umumara, Uturu, 2 July 1985.

[47]Ugwuade Osigide, IHT 26, Umueri, Umundu, 4 July 1984; J.N. Ezike, "Aspects of the precolonial history of Aku", Special Project in History, Nsukka, 1983, pp.35-37.

[48]Ndukwe Ezenna, IHT 206, Umumara Uturu, 24 May 1985; S.U. Odurukwe, "Iron smelting and smithing in Uturu: an ethno-archaeological study of Ugwuogu", Special Project in Archaeology, 1985; p. 29.

[49]Tylcote, "Iron smelting in preindustrial communities", 340-348; Pole, "Iron working apparatus and techniques", 11-39.

[50]Anozie, "Agbaja - Nwofe"; Judith Todd indicates that the Dimi smelters in Ethiopia used the same method, "Studies in primitive technology", 31.

[51]Ugwu Ugwuanyi, IHT 89, Okpulu Eha, 15 Oct. 1984.

[52]Pole, "Iron working apparatus", Tylcote, "Iron smelting in preindustrial communities".

[53]Benedict Odo, IHT 75, Umuanya Umundu, 20 Sept. 1984; Nnaji Eya, IHT 74, Umuaya Umundu, 20 Sept. 1984.

[54]Pole, "Decline or survival?", 504.

[55]S.F. Nadel, A Black Byzantium, (London, 1942), pp. 259-69; Pole, "Decline or survival?", 505.

[56]Ibid., 504.

[57]Ibid.

[58]O.N. Njoku, "The metal industry of the 19th century Igbo society", paper read at a History Workshop, The Johns Hopkins University, 1984.

[59]Gordian Nwauturukpo, IHT 213, Achara Uturu, 27 May 1985; Samuel Obike, IHT 278, Ndundu Uturu, 3 July 1985.

[60]Williams, Icon and Image, p.72.

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[65]Ibid., p. 165.

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[74]P.A. Talbot, Peoples of Southern Nigeria; Volume III, (London, 1966 imp.), p.923; Nadel, A Black Byzantium, p.261.

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[76]Jones, The Trading States, pp.92-94; Adams, Remarks, pp. 241-245.

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[79]Hopkins, An Economic History, pp. 149-150.

[80]Ibid., pp. 149-153.

[81]Pole, "Decline or survival?", 503-513.

[82]Forbes, Volume 8, p. 35.

[83]Igboko Kalu, IHT 18, Ndi Ezema Abiriba, 8 June 1983; Maduekwe Kalu, IHT 17, Ndi Ukpai, Asaga Ohafia, 7 June 1983; Idika Ogbonnaya, IHT 271, 1 July 1985.

[84]Dick Aohonwa, IHT 1, Umuko Nkwere, 21 Aug. 1982.

[85]Basden, Niger Ibos, p.318; Dike, The Resilience of Igbo Culture, pp. 52-58.

[86]Aneke Nwigo, IHT 111, Agulu Umana, 27 Nov. 1984; Richard Okoli, IHT 99, Uwani Amokwe, 5 Nov. 1984.

[87]Vaclar Jaros, "The hammer is number one", The Anvil's Ring, 9[illegible](1981), 1-2.

[88]Agulu Amokwe is famous for the making of animal traps of a very high quality.

[89]The entry of people without a smithing background into the profession was violently resisted by the traditional

smiths. It resulted in colonial government intervention and the imprisonment of some people in Agulu Umana.

[90]Igbokwe Nwozu, IHT 297, Omusa Nkwere, 7 July, 1985.

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[93]Maduagwu Nwolisa, IHT 159, Umunobo, Nkwere, 25 Feb. 1985.

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[95]Basden, Among the Ibos, p.173.

[96]B.M. Fagan, "Early trade and raw materials in south central Africa", in R. Gray and D. Birmingham (eds.), Precolonial African Trade: Essays in Central and Eastern Africa Before 1900, (London, 1970), pp.24-38.

[97]Ude Nwuma, IHT 8, Amogu, Aku, 26 Nov. 1982.

[98]Oji Omekwu, IHT 121, Umasi Okwesi, Agulu Umana, 10 Jan. 1985.

[99]Dick Achonu, IHT 1, Umuokwaraoji, Nkwere, 28 Aug. 1982.

[100]Forbes, volume 8, p.85.

[101]Jideofo Chijindu, IHT 115, Agulu Umana, 21 Dec. 1984.

[102]Jeffreys, (i)"The Oreri mask", The Nigerian Field, 10(1941), 142; (ii) "Awka bronze-bells", Anthropological Journal of Canada, 6,3(1968), 24-27.

[103]Talbot, The Peoples of Southern Nigeria, volume 8, p. 923.

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[105]Reverends S. Crowther and J.C. Taylor, The Gospel on

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[109]Egharevba, A Short History of Benin, pp. 27;30.

[110]N.A.E., "Intelligence report on the Aro clan", ARODIV, 20/1/15; Isichei, A History of the Igbo People, pp. 58-59.

[111]Isichei, The Ibo People and the Europeans, pp. 34-35; 51-52.

[112]Henderson, The King in Every Man, pp. 92-94; Northrup, Trade Withou Rulers, p.36.

[113]Equiano, Narrative, p.7.

[114]MacLeod, "Ethnological report", p.9.

[115]Okezie Ibe, IHT 203, Okon Aku, Ohafia, 22 May 1985.

[116]Meek, "Report on Nkwere town Okigwe division", N.A.E., CSE 1/85/4149, 1931.

[117]Basden, Niger Ibos, p.320.

[118]Maduekwe Kalu, IHT 17, Asaga Ohafia, 7 June 1983.

[119]Adams, Remarks, pp.260-61.

[120]Kalu Eke, "An autobiography", Nigerian Field, 7, 4(1938), 158-170.

[121]Basden, Niger Ibos, pp. 320-21.

[122]Madnagwu Nwolisa, alias, Beke Meluo, IHT 159, Umunobo Nkwere Knwere, 25 Feb. 1985.

[123]Madu Nweze, IHT 85, Umugwu Ekwom, 3 Feb. 1985.

[124]Njoku, "Agulu - technology suppressed".

[125]Nwachukwu Nwanyanya, IHT 15, Umubele, 21 May 1983.

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[127]Quoted in Neaher, "Bronzes of southern Nigeria", p.63.

[128]Crowther and Taylor, The Gospel, p.333.

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[130]Reverend F.W. Dodds, "Notes on early days in Uzuakoli", in appendix of A.J. Fox, Uzuakoli: A Short History, (Ibadan, 1964), p.95.

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[132]Basden, Niger Ibos, p.318.

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# CHAPTER FOUR

# THE PHENOMENON OF ITINERATION

## Section One: Its General Character

The wide diffusion of iron technology demonstrated in the second chapter suggests a continual movement by the smiths through time and space. Indeed, if there was a single most prominent feature of the metal technology of precolonial Igboland, it would be that the smiths were habituated to itineration. In all the major smithing centres, without an exception, the smiths were engaged in continual professional tours. They tramped from one community to another, peddling their skill and wares, in some instances, over long distances. Smelting was less widespread because it depended upon the availability of iron ore; it was more strenuous and yet less profitable.

Field investigation shows that even the less well known centres, to varying degrees, were also engaged in these occupational tours. In the conception of precolonial Igbo society, smithing and travel, whether local or long distance, were inseparable. To the smiths themselves, the journeys and the profession were a symbiotic imperative. Needless to say that those places where the technology took root constituted only a small fraction of all the places the smiths visited in the

course of their peregrinations. The transfer of the technology was effected primarily in those places where the smiths had established long or permanent residence. This section seeks to examine the general character of the itineration of the Igbo smiths.

I. General

In published literature, itineration is generally associated with pastoral communities with dispersed settlements and limited consumption of iron goods.[1] From this perspective, the mobility of Igbo smiths was a unique phenomenon, since their itineration included an area with the densest rural population in Africa south of the Sahara. The mobility of Igbo smiths contrasted sharply with their rather sedentary Benin, Igala and Nupe counterparts. It should be no surprise that by the close of the nineteenth century, the smiths' operations had covered the entire southeastern Nigeria region.

The propensity of most other iron workers towards a sedentary life was dictated in some places by royal control. The precolonial states depended largely upon smiths for the supply and repair of the weapons used by their armies. It was, therefore, crucial to such states that the smiths were kept under effective control of the state authority. In many West African legends, we encounter symbolism associating the evolution of political

authority with the knowledge of iron or the control of iron workers.

In Hausaland, Bayajida's mystical knife is said to have been forged by blacksmiths from Kano.[2] A Yoruba legend says that at the beginning of creation, only one deity, Ogun, possessed the secret of iron. The other, Orisa, offered to make him their chieftain if he revealed the secret to them.[3] Samoure Toure, during his confrontation with the French relied on his smiths to produce some of his weaponry and to repair those imported from Europe through British agents or those captured from the French.

Apart from their purely utilitarian value to the state authorities, the metal workers produced important metal items which were a part of the paraphernalia of the monarchs and their courtiers. Not all the items were made of iron; some were bronze, others brass, produced by the lost wax method. As Neaher observes, bronze in particular was associated with the interwoven qualities of "sacredness, authority, wealth and high social position".[4] Its scarcity in West Africa seems to have further enhanced its value, since rarity tends to be coeval with preciousness.

It is not surprising that many archaeological discoveries associated with royalties, as in Ife and

Benin, have yielded many bronze artifacts. It is significant that the bronze pectoral mask was, perhaps, the most important item in the royal regalia at Benin, Idah and Nri. Thus it can be understood why rulers endeavoured to bring the metal smiths under royal control. In Benin, Idah and Nupe, the heads of the metal guilds were members of the council of state.

Another factor which made iron workers sedentary in some societies was their status in the community. Among the Masai, smiths were a despised caste, outside the pale of society.[5] They lived in distinctly separate kraals; their interaction with the wider society was consequently restricted severely. They formed an endogamous community. The normal Masai avoided even casual sex with their women. A Masai would not normally expect hospitality from a smith, nor would he contemplate extending any to him. Among the Fouta and Dogon in West Africa, smiths also formed a despised, endogamous caste, notwithstanding their specialist skill and utility value upon which the society depended for its agricultural tools and hunting and war weapons.[6] The paradox of the smiths' status in such societies is discussed in some detail later as an aspect of that phenomenon referred to earlier as the sacred iron complex. It suffices to suggest here that this situation imposed a severe constraint upon the smiths' movements.

The political and social negatives indicated above did not face precolonial Igbo smiths.

Of course, the smiths were not the only itinerant specialists among the Igbo. Others included oracle agents such as the Aro; ritualists such as the Nri; medical men such as Okon - Aku in Ohafia and Amakwo in Awka; and teeth filers and body scarificators such as the Umudioka. Some of these itinerant groups ante-dated the iron technologists in their communities. On balance, however, smiths seem to have been the most travelled group in precolonial Igboland.

We may distinguish between two categories of itineration, namely, the local or short distance, and the long distance. The former refers to occupational travels undertaken by smiths within communities reasonably close to theirs. Such communities could share a number of things in common, such as language or dialect, cultural practices such as festivals, and historical links. Itineration of this category did not require much logistical and security preparation. On the other hand, long distance itineration necessitated careful planning and preparation as the itinerants had to traverse many communities of diverse languages or dialects, cultures and socio-political organisations. Our concern here is primarily with long distance itineration. The underlying

premise of the discussion is that it would be difficult to understand and assess the depth and breadth of the place of iron technologists in precolonial Igbo society, and even in that of their neighbours, without first comprehending the itinerant aspect of the profession.

II. The Root of Itineration

It is hard to say how far back itineration had been a feature of the smithing industry in Igboland before the colonial era. Most traditions say that the industry and itineration are as old as each other. Indirect evidence suggests that it is of considerable antiquity. The presence of iron slag among the artifacts recovered at Igbo-ukwu would indicate that iron was worked in or within the vicinity by the ninth century A.D. Since the Igbo-ukwu do not have ancient traditions of iron technology, and iron ore does not appear to exist there, it is logical to attribute the artifacts to visiting smiths.

Furthermore, Igbo itinerant iron workers tended to be associated with elite patrons for whom they produced luxury items of social distinction. It is thus plausible to suspect that the bronze and iron objects discovered in the burial chamber of an important dignitary at the Ifeka Garden Site, Ezira, carbon dated to 1495 95 A.D. were supplied by itinerant smiths. However, the earliest

direct, documented reference to the itineration of the smiths was made by Olaudah Equiano in his Narrative of 1789. After his capture by slave raiders, Equiano was sold to a travelling smith who assigned to him the job of pumping his bellows.[7]

Some observers have drawn attention to what they consider to be an intriguing feature of non-agricultural specialisations in precolonial Igboland. It is said that the major non-agricultural specialist groups were located on the northern Igbo plateaux and the range of hills stretching from Nsukka to Okigwe with a southeasterly protrusion through Abiriba to Arochukwu. The northern portion of this area is characterised by extensive, derived savanna and poor soil, coupled with high population densities.[8]

The standard explanation of this phenomenon is that the development of non-agricultural specialisations was a response to the ecological deterioration of the area. For instance, in his Report on Nkwere town, Meek submitted as follows:

> Nkwerri town land has, except perhaps in the infancy ofNkwerri, always been insufficient to support the inhabitants of Nkwerri Town ... Hence from the earliest times, the male inhabitants have resorted to other occupations besides that of agriculture as a means of support.[9]

Meek's explanation has been repeated and elaborated by subsequent commentators. They draw attention in

particular to Awka, Nkwere, Abiriba and Arochukwu which were widely respected throughout Igboland for their industry.

The ecology stimulation theory, attractive as it may seem, raises the question of the egg or the chicken; which preceded the other? Our field data does not support this theoretical model. A more likely explanation, with particular reference to iron technology, seems to be that specialisation may have been the prime cause of, not the response to, ecological deterioration. We have seen earlier that iron smelting and smithing consumed a considerable amount of wood. Archaeologists and precolonial historians suggest that iron technology was probably one of the earliest occupational specialisations in Africa.[10]

Again, the ecology stimulation model is contradicted by what we know of the location, population and vegetation of some of the specialised production groups in precolonial Igboland. Indeed, Arochukwu, easily the most prominent of the non-agricultural specialists, neither suffers from derived savanna vegetation nor from a high population density or an impoverished soil. The Abwam people were the leading textile specialists in Igboland. They live in the southern extreme of Igboland with a scanty population and a heavy tropical forest.

Basically, it seems that the root of itineration as an integral feature of the smithing industry in Igboland is to be sought in the phenomenon that, on the one hand, the industry was in the control of a relatively small group of people, on the other hand, the demand for its products spanned over a considerable geographical area. Two main options were open for the distribution of the products. One would have been for the smiths to remain more or less stationary at their home bases, leaving distribution to professional traders. The other option was for the smiths to peddle their skill and help to distribute their own products as extensively as they could.

They opted for the latter for a variety of reasons. Sedentary production would have resulted in the early depletion of the raw materials, namely, iron ore and wood. Had the metal workers created a Manchester at Udi or Awka, that is, centralised their production, they would have quickly run out of wood. In fact, the scarcity of wood may have been a push factor of itineration.

As suggested earlier, before c.1500, the Igbo were probably heavily concentrated north of the Igbo heartland. South of that area was probably sparsely populated, densely forested and unattractive for human settlement. The search for firewood, coupled with the attraction of

the Atlantic trade, which possibly induced a heavy influx of population southwards, probably coaxed the smiths to move into that region. The more mobile the smiths were, the less the problem of securing wood fuel became.

For the ordinary citizen, long distance travel was fraught with danger and insecurity. But the smiths enjoyed relative immunity from bodily harm wherever they went, and therefore, were more efficient distributors of their own products. Itineration gave the smiths the advantages of producing goods according to the specific requirement of their operational areas, and of offering something of a door-to-door service to their customers.

By travelling away from their home bases, the smiths obviated or at least minimised the chances of glutting the local market with their products. This was particularly important in view of their strong determination to maintain a restrictive monopoly or even cartel. The fact that the smiths lived in concentrated lineages, not in dispersed settlements or hamlets, and that every male adult in these lineages was a smith, made the possibility of glutting the local market seem real. This situation would have been emphasised further as the population and productive capacities of the smiths increased with time.

The propensity of the smiths to itinerate seems to have been dictated ultimately by economic considerations,

or the profit motive. Naturally, the marginal utility of iron products, as with any product at all, would be lower in the production areas than in areas far away from them. In the circumstance, it was economic for the smiths to export their goods and services from the areas of low marginal utility to where it was high.

Itineration, therefore, involved the transfer of the smiths' manufactories to the areas of consumption. This practice can be said to be analogous to the current practice of the industrial nations of the world locating production as close as possible to the market. Of course, the itineration of the smiths did not eliminate the middle men from the distribution of their wares. Although the smiths were itinerant, their places of sojourn merely served as the main distribution nuclei to the outlying communities which they themselves could not visit, as some consumers lived in remote hamlets. Aro traders, for instance, were major distributors of the smiths' products.

Long range itineration afforded the smiths the opportunity of making additional earnings by going into sidelines such as trade and medical practice. The tours made the smiths ideal purveyors of various goods from areas of plenty to those of want. The existence of dispersed pockets of high purchasing power, consuming high cost, luxury metal goods, encouraged the smiths to

undertake tours to satisfy the needs of their patrons. As will be shown shortly, itinerant smiths not only traded to a man, most of them acted as physicians and diviners. Thanks to the powers which were believed to inhere from iron, and the communication between that iron and the smiths who knew how to handle it.

Traditions in some of the smithing communities say that in the early phase of iron technology, before a smith produced a tool for a customer, he or she had first to work in the smith's farm for between one and three days, depending upon the items to be produced and the quantity.[11] This work was known as *oru njutu*, 'consultation work'. A consequence of this was that the smiths were able to complete their farm work earlier than ordinary farmers. They could thus spend more time in the forge or travel out to near by communities to practise their craft.

This practice continued in some communities such as Opi Uno and Eha Alumona in Nsukka into the late nineteenth century. In others, like Aku, there was a shift in the system in the early eighteenth century. In place of the farm labour, the smiths demanded from the farmers, for whom they had produced new tools, the first day's harvest, as a 'thankful' present to their deity.[12] Failure to do so was believed to incur the dangerous displeasure of the

deity. The defaulter would face a severe crop failure the next season, or the sudden rotting of harvested crops. In addition to this method of procuring food, the smiths were often paid partly with food stuffs for jobs done.

The gradual detachment of the smiths from the farm was a precondition for the emergence of long range itineration. Also the separation of smelting from smithing allowed the smiths more time to concentrate on smithing alone. Disengaged from smelting and farming, the smiths were able to take advantage of the traditional Igbo four-day and eight-day market periodicity. In Igboland, it was usual for contiguous communities to form a market ring based on the four-day or the eight-day periodicity, depending on the number of markets involved. 'Small markets' (afia nta) were usually associated with the four day periodicity, and their catchment area was relatively narrow. 'Big markets' (afia ukwu) were usually associated with the eight-day periodicity.

The underlying concept of the market ring is that proximity in space should imply separation in time.[13] And a distinguishing feature of the trading landscape of Igboland is the ubiquity of these markets so carefully arranged in space and time as to avoid overlap. Polly Hill, perhaps the best authority to date on West African rural economics, observes that in terms of their number,

the rural markets of Eastern Nigeria are "among the most impressive in West Africa".[14]

The market ring arrangement meant that among a contiguous group of markets, at least one was likely to be in session each day. For instance, in the Nsukka district, Obolo market held and continues to hold on Afo days; Ibagwa Aka on Nkwo; Orba on Orie and Obolo Eke (Obolo Ndiagu) on Eke. These markets are within a walking radius of Nsukka town. It was feasible, therefore, for a smith based at Orba or Umundu, for instance, to attend one market each day. In time, a local work orbit emerged. From such a narrow work orbit, the smith expanded his spatial reach, as he made contacts with traders from communities without iron working traditions.

III. Travel Preparations

It was the extension of the above trend that resulted in long range itineration, covering over six hundred kilometres in some instances. Because of the distance involved, the number of varying communities traversed and the inevitable absence of the smiths from home for at least a few months, the travelling smith had to prepare carefully for his journey.

Traditionally, no smith ever travelled to a community to which he was a complete stranger, or without an

invitation. He must be invited by a citizen or resident of that community, usually a widely recognised figure. An exploratory contact was first established between the smith and the community needing his service. This was followed by a visit to the smith by a delegation from the community. The delegation made a formal request to the smith to set up a workshop in their community.

The visit afforded the smith's kindred or his host, if he was operating outside his own home base, an opportunity of meeting with those making the request. In this way, it was established who would be held accountable if something went amiss with the smith when he travelled to the people making the request. Usually, the arrangement was sealed with a blood pact by which the visitors pledged to give full protection to the smith. The visitors returned home to prepare for the smith's coming. The preparation included erecting a workshop and preparing charcoal for the smith.

The smith had to make his own preparation for the journey. This centred around the need to put his domestic affairs in order and to ensure a smooth and safe journey to his destination. The details and elaborateness of the preparation depended upon a number of variables -- the distance of the journey, its projected duration and the general state of security on the route. If the smith was

going to be away from home for a fairly long time, he made a solid arrangement for the upkeep and welfare of the family during his absence.

Sometimes, the smith went on itineration with his family, but only to places he had been used to going. In that case, he arranged for a member of his kindred to look after his house. Travelling with the family meant that the smith had to place an extra premium on matters of security along the route. Pre-travel contacts were made with well known and widely respected individuals or groups in each of the main communities through which the travellers would pass.

Smiths were believed to enjoy the privilege of long distance travel with relative immunity from physical molestation, at times when such journeys were fraught with danger to the ordinary people. However, the smiths were people of a practical mind, and were aware that social deviants and maladjusted individuals were unpredictable, and that any physical injury inflicted on them by such people remained a fait accompli, even if reparations were made for it several times over. They did not, therefore, rely solely on their wide reputation as sufficient protection during their travel. They took practical steps to provide themselves with other forms of protection.

One of these was to travel in armed troupes, otu ije.[15] A troupe was led by smiths with a wide travel experience and reputation. Such leaders had a long established chain of contacts with influential chiefs or peoples in the various communities through which the troupe would pass or in which it would sojourn. The leaders were also men whom marauders feared to confront. They could, it was believed, turn into ferocious animals such as the leopard, the tiger or the python.

Nkwere and Udi troupes seem to have been the best organised; they provide the best examples of the care with which itineration was organised. Among the Nkwere, the members of a troupe were divided into five categories: ota ije or ndi isi ije, ochi ije, umu uzu, okwa ibu and okwa mkpukpo.[16] Ota ije were the leaders of the troupe. They planned the journey and made all the necessary contacts with potential hosts. They also made the regulations binding on the troupe. The regulations laid emphasis on the need for group cooperation and solidarity, respect for the laws and customs of host communities as well as the need to keep the secrets of the profession.

Ochi ije comprised independent smiths who were yet too inexperienced and little known to organise their own troupes, and ordinary long distance traders. Often, for security and economic reasons, long distance traders

travelled in the company of smiths. The ochi ije paid a fee varying from five to ten brass rods (roughly 2/ 6 d. to 5/-) each,[17] according to the distance of the journey and the state of security of the routes. The contributions were used to buy presents for the hosts of the troupe and to pay tolls on the road. Umu uzu were the apprentices; they carried the tool kits of their masters.

Okwa ibu were professional carriers employed by the smiths and the traders to transport by head their trade commodities. Okwa ibu are said to have been a crucial component in any travel arrangement because the smiths' products, being predominantly iron, were heavy. Only strong muscular men could carry a reasonable quantity of the products, such as hoe blades, axes, diggers, spears and animal traps. Itinerant smiths also had to make an arrangement with smelters or traders, like the Aro, who dealt in imported iron, for a regular supply in their places of itineration. This arrangement was particularly important to smiths travelling to areas far removed from the major markets or smelting sites, where the raw material could not be obtained locally or could be procured only at an exhorbitant price.

As Ekejiuba observes, it was customary for professional carriers to travel to different parts of southeastern Nigeria in the performance of their role

without fear of harrassment or of enslavement by slave raiders.[18] This emphasises the crucial role of this group in the circulation of goods and services in the region. When travelling alone, the okwa ibu normally carried along with them the emblems of authority of the dignitaries with whom the leaders of the troupe had reached mutual understanding. The emblems served as passports, ota ije, facilitating the movement of the carriers.[19] On very distant journeys, the transportation of the troupe's luggage was usually done by a relay of carriers, in the same way as the troupe was shuttled from one domain to another. Sometimes, okwa ibu who proved faithful to the smiths ended up being taught the craft.

Okwa mkpukpo were the guards of the troupe. They were usually hefty, strong men, armed with bows and arrows, spears, matchets and, in the nineteenth century, guns. They also carried gongs and horns which they sounded from time to time en route, to warn deviants and road-marauders to steer clear. At other times, they sounded these instruments when the troupe approached a village, to intimate to the people of the troupe's arrival. The okwa mkupkpo took up the front and rear positions of the caravan. On the routes leading to the major markets, a caravan, it is said, could stretch for about two kilometres, and could comprise more than two

hundred men, women and children, some of whom were carried on the shoulders by the young men.[20]

The leaders of the troupe were usually armed with sheathed matchets and guns. They split themsleves into two, one group taking up the front with some of the guards and the other, the rear with other guards. A British punitive expedition commanded by Captain P.K. Carre encountered such an armed caravan in the Ngor - Okpuala route in July, 1902.[21] All these protective mechanisms adopted by the smiths seem to suggest that there was a wide gap between the theory or belief in the immunity of smiths from physical attack and its actual observance.

These pragmatic measures were reinforced with metaphysical precautions. Every smithing community had a deity or deities associated with the profession. Abiriba had Anya uzu, ('the smith's eyes'), Awka had Akputakpu; Nkwere had Ogadazu, Udi, Chikereguru and Ogadazu, and Aku, Chikereguru, to name just a few. The smiths believed that the success of their profession depended ultimately upon the favours of their deities, which in the first place conferred the privilege of being smiths on them. Before embarking on any journey, the smiths made offerings to the deities and promised to do more on return from a successful tour. The favours of the deities were necessary, it was thought, for the safety of the smiths on

the road, protection against the hazards of the forge and for attracting customers.

Awka and Udi smiths had a common practice of leaving their work kits over night at the shrines of their deities before leaving on their journeys. By so doing, the tools were expected to be infused with the powers of the deities. In both Awka and Udi, every travelling smith took a chip of slag, akputakpu, from the shrine of the deity in his village and wrapped it in ogirisi leaves. The wrapping was enclosed in the smith's luggage. In addition, Udi smiths stuck pairs of pincers in their luggage in such a manner that they projected out conspicuously. These served as emblems of identification which could help to protect the smiths from harrassment along the road.

Nkwere smiths travelled under the aegis of two deities -- Ogadazu, their god of iron, and Ajimiri, their ancestral deity. The latter catered for the interest of all Nkwere people, protecting them wherever they went. He could incapacitate by rendering blind or immobile people who constituted themselves a nuisance or security risk to Nkwere travellers. Hence, an Nkwere adage, ngala nga onye Nkwere anola, Ajimiri nwe ya: 'wherever an Nkwere citizen may be, he or she is in the custody of Ajimiri'.[22]

While Ajimiri catered for the interest of all Nkwere

citizens, Ogadazu was exclusive to the smiths. It was called honorifically mmo nwe oku na inwe, 'the spirit force that controls fire and iron'.[23] The smiths looked upon Ajimiri for prosperity, safety on the road and in the forge. Evidently, the functions of Ajimiri and Ogadazu overlapped and were mutually complementary and reinforcing. Honouring one without doing same to the other jeopardised a smith's chances of making a successful journey.

Travelling smiths, therefore, had to make separate offerings to each of the deities before leaving home. Every smith travelled with a miniaturised image of Ajimiri and Ogadazu carved in wood. These were known a ugbo Ajimiri and ugbo Ogadazu, respectively.[24] Every smith also took pieces of white chalk from the shrines of each of these deities and wrapped these, as Awka and Udi smiths did, in ogirisi leaves. These pieces of chalk were buried at the entrance of the smith's forge when he got to his destination. The carved images were hung in some corner of the forge. They not only protected the smith from physical and metaphysical dangers, they also attracted customers to him.

While these preparations were being made, the wives of the members of the troupe and the mothers of accompanying apprentices would have been busy preparing

dry packed meals which could be preserved for several days or weeks during the journey. These included sliced pieces of yam dried in the sun, roasted yams, fried beans, corn and palm kernels. These foods were eaten during rest periods along the route.

After receiving the final blessings from the kindred elders, the troupe set out. The farewell words of Udi elders were typical. They reminded the travellers that onye uzu ama ato n'ije, -- 'the traveller must not settle abroad for good'.[25] From the home base, the troupe moved from the domain of one 'chief' to another's. Agulu Umana elders took extra care to see that their smiths were properly handed over to the nearest 'chief' through whose territory they were going to pass. The handing over included a note indicating the numerical strength of every troupe as well as an admonition: "may the people we hand over to you suffer no headache".[27]

Each 'chief' provided night accommodation and food to the travellers as long as they were his guests. He also provided escorts and, if need be, head carriers to them. At a recognised border post, he handed them over to the next 'chief' into whose territory they were entering. In this way, the travellers were shuttled from one community to another until they arrived at their final destination. In some of the very distant journeys, this process could

take close to a month or more.

IV. Smiths at the Place of Sojourn

In its operational zone, the troupe had a central place or rendez-vous. This was usually the chief town or commercial centre in the zone, linked to the peripheries by a network of footpaths. Some smiths stayed at the rendez-vous to do their job while others took off into the outlying communities. They maintained contact among themselves through attendance at the important markets in the zone and through visits to the central place. The meetings provided them with the opportunity of sharing market information and of discussing and resolving issues affecting members. The meetings also enabled the leaders to monitor the movements and welfare of their members.

Housing accommodation and feeding were provided free to a smith by his host, although as he settled in and began to make some earnings, he was expected to contribute towards both his own and his apprentices' feeding. If he travelled with his family, his wife was provided with her own kitchen, and took up the traditional role of feeding the family. In communities where smiths visited on a regular basis, some smiths built their own houses, as the Awka seem to have done in parts of the West Niger Igbo communities.

Before a smith started work in the forge prepared for

him by his hosts, he first of all cleansed it ritually by making some sacrifices there to his deity. The items used for the sacrifice included kola nuts, white chalk, a fowl or, preferably, a dog, and yams. The animal was slaughtered and its blood sprinkled on the smith's tools. The carcass was used to prepare a meal which the smith shared with his hosts. The first products of the smith, according to Nsukka tradition, were made as free gifts to the oldest man and woman in the lineage hosting the smith.[27] These products were usually knives.

The pleasantries over, the smith settled down to serious work. Away from home, he was detached from extended family and community obligations which could, from time to time, take him away from his forge. He was always conscious of the fact that he had left his home in pursuit of his economic betterment and to improve his socio-political standing in his community. He had to return home for the annual celebration of the smiths' festival, during which he would be expected to demonstrate how successful his journey had been. With this panorama mentally before him, he worked extremely hard and lived very frugally in his place of sojourn so that he could live like a prince among his own people.

As would be expected, a patron-client relationship of sorts usually developed between the smith and his host.

The relationship was symbiotic, based, as it was, on mutuality of interest. The smith demonstrated deference to his host by according top priority to any job he commissioned, and by producing or repairing items free of charge for him or at token charges. The patron played the role of a broker between the smith and his customers, for which service he received a commission from both sides. This was most usually so in respect of gun production which involved considerable expense, by the standard of the society, on the part of the purchaser.

In some cases, a gun was paid for in slaves and other items such as elephant tusks, and this sort of payment involved tedious haggling in which the smith's host played an important role in reaching a compromise acceptable to both the producer and the consumer.[28] The patron's wives were often given the smith's products such as hoes, knives and needles to sell in the local market. They kept whatever extra they made from the sale, giving the smith the agreed price.

The presence of the smith enhanced the social standing of his host in the community. His premises acquired semi-sacred status, arising from the powers believed to inhere from iron. In most communities, difficult matters, especially those relating to stealing, death by poisoning and adultery, were often settled by the

accused or suspects swearing oaths of innocence on the smith's anvil. Partly for this reason and partly because people wishing to commission or buy new products or to have old ones repaired for them frequented the forge, the premises of the smith's host became something of a rendez-vous.

Needless to say, privileges implied responsibilities. The patron took steps to see that his client's sojourn was pleasant and rewarding; otherwise he might not come again. He had to protect his client from people who might be inclined to cheat him by taking advantage of his being a non-indigene. He supplied his client with local market information and such other data which enabled him to adjust his production and marketing strategy to suit the local circumstances. The patron took steps to ensure that his client was protected from all physical dangers whenever he toured the neighbouring communities. Generally, smiths, as indicated earlier, were hosted by influential people who were in a position to give them both the protection and the publicity they needed.

The smiths themselves played their part in making themselves welcome in the community. They were a respected group in the traditional society. The respect stemmed from the utilitarian and social value of their products and the esoteric and potent powers attributed to

iron and those who knew how to handle the mysteries. Equally important was that they comported themselves with respect and diplomacy. The smiths were law abiding wherever they went, their motto being onye ije enwe ilo, 'the traveller should make no enemies'.[29]

The troupe leaders usually took other practical steps to ingratiate themselves with their host communities. One of these was the buying of initiation into the prominent socio-political formations prevalent in their operational area. The best known of such societies were the Ekpe and the Okonko secret societies which were instruments of government, economic and social control in the Ngwa, Aro, Ohafia, Umuahia and the Cross River districts.[30] Abiriba, Agulu Umana and Nkwere made regular itineration to these areas, and it is significant that the Ekpe and Okonko societies still exist in these smithing communities. Membership enabled the smiths to communicate in the Nsibidi sign language which offered them a free passage through those communities where the secret societies existed.[31]

Inter-marriage was another means by which itinerant smiths forged lasting mutual relations with their hosts. It was common for smiths to take wives from influential families in their business areas, and to give out their own daughters in marriage to such families. Relics of

these marriages still exist in most of the principal smithing communities. In Awka, a significant number of retired smiths still live with their Ijo and Igala wives. Nkwere also has a substantial population of women of Ijo and Ogoni origins.

Away from their own language area, the smiths were faced with the difficulty of acquiring at least working knowledge of the local language of their operational area. In the event, most smiths learned to speak different languages, reflecting their areas of itineration. In Abiriba, Efik is something of a second language to the older generation of smiths, just as Ijo is widely spoken among retired smiths in Nkwere and Awka. In 1854, B.W. Baikie was fascinated by the multilingual competence of the African traders he met, who were "speaking not infrequently three or more different languages".[32]

In spite of the cordial relationship which the smiths cultivated with their hosts, they were far from willing to impart their skill to other people. Restricting the technology to themselves was deemed the surest way of maintaining their utility. As we saw in an earlier chapter, the smiths did this through a rigorous and tortuous apprenticeship system, recruitment based primarily on kinship, and by hedging the technology with numerous taboos and rituals. Awka smiths even spoke ivu

aba which was unintelligible to their hosts.

Even in the precolonial times, as P.A. Talbot observed, "a smith seldom takes an apprentice save from amongthose of his family".[33] The unwillingness of the smiths to impart their skill to people outside their kinship meant that the technology could not spread as far as it would otherwise have been possible. Thus it is misleading to suggest, as has been done in some quarters, that "every Awka man became a smith"[34] or that the Awka people were smiths "almost to a man".[35]

V. The Zoning System of Awka and Nkwere

By the mid-eighteenth century, Awka and Nkwere had each independently evolved an internal zoning arrangement in their itineration. By this, each divided their areas of itineration among the smithing lineages. In Awka, the largest lineage, Umuogbu, had the Idu (Benin) zone, stretching form Asaba through Benin to Yoruba land. Umubele had the zone starting from immediately above Onitsha northwards to the Niger-Benue confluence. This included the Idoma and Igala country. Umuike operated in the area south of Awka including Ngwa, Owerri and Umuahia districts. Umuanaga had the eastern Niger delta while Umuenechi travelled to the western part. Umuoruka were assigned the Cross River area which they shared partially

with Umuajagwo who also operated in parts of Abakaliki district.[36]

Isiagu lineage in Amikwo shared the delta zone with Umuanaga while Umuzuocha, a lineage in Amachala village, was permitted a flexible itineration in Igala and parts of southern Igboland. Isiagu and Umuzuocha were not Agulu lineages but they were related to Agulu maternally. Ikwodiaku, the mother of Agulu Nnebuzo, it may be recalled, was of Amikwo extraction. Uzuocha was the only daughter of Agulu Nnebuzo, and was married in Isiagu in Ifite Awka. The maternal connection between Agulu village and these two lineages qualified their offspring to be apprenticed by Agulu smiths.

Nkwere had five main zones of operation. The Umunubo lineage had the Bende zone, which included Igbere, Ohafia, Umuahia and Uzuakoli, with Bende as the focal point. The status of Bende as the prime trade fair in precolonial southeastern Nigeria made the zone one of the most lucrative. The Umueze and Umuanaga lineages had the delta area including eastern Ijo, Ahoada, Ikwere and Ogoni. The Efik + Ibibio country went to Umunnachi, a zone which derived its importance from the Cross River as an artery of trade between Calabar and the hinterland. The Umuduroji operated in the Igbo heartland, particularly in Mbaise, Mbano, Ngwa and parts of Umuahia. The Umuko,

perhaps the best and most travelled of Nkwere smiths, operated in the northern Igbo area, including the Igala country, and the West Niger Igbo area.[37]

The zoning system appears to have served two main purposes, namely, to avoid unhealthy competition and rivalry among the smiths, and to check against possible entry into the profession by 'unrecognised practitioners'. By the middle of the eighteenth century, smithing had become easily the msot lucrative profession in both Awka and Nkwere. Long distance itineration had all along been viewed as an integral feature of the industry. Competition between the smithing lineages seems to have been growing keener, with symptoms of acrimonious rivalries popping up once in a while. According to the traditions of Nkwere and Awka, the zoning system was evolved to diffuse unhealthy rivalries, which were seen to be dangerous to the industry. Some time around 1744-1774, Agulu Awka, apparently backed by the Awka council of elders, decided to assign a specific work orbit -- ezi ije -- to each lineage.[38] In Nkwere, the work orbits -- onuma ije -- were shared out by the council of smiths.

In both communities, the zone assigned to a lineage was based on the relative influence of the lineage in the area prior to the zoning exercise. Usually, smiths travelled out in kinship groups. It was, therefore, not

difficult to establish the directions in which particular lineages were most oriented. As would be expected, zonal boundaries were not clearly defined, and the overlapping of the activities of smiths operating in contiguous zones was frequent. But the core of each zone was unmistakable, that is, the principal towns and markets. As zoning was an internal arrangement, it was not expected to be applied to itinerant smiths from other communities.

In Awka and Nkwere, each lineage was encouraged to operate in its own zone, to minimise confict. The practice of smiths travelling out in kin-based groups made the observation of the regulations easy. Each lineage exercised its discretion to permit smiths from other lineages to join them in specific journeys, if they made the request. Otherwise, each lineage guarded its work orbit jealously. Intruders were dealt with severely. Agulu Awka was more stringent in applying the rules than Nkwere. An early foreign visitor to Awka commented on the grim determination of the smiths to maintain their monopoly:

> In the blacksmith's profession there is an intensely rigid 'Trade Unionism', and any attempt to usurp the privileges of the Awka men was obstinately resisted, even unto war.[39]

One war was fought between Agulu and Amikwo from c.1898-1904. Amikwo people, were traditionally physicians and had been intrepid travellers even before the emergence

of Agulu as an itinerant group. Through intermarriage, smithing had diffused from Agulu to Amikwo relatively early, and by the mid-nineteenth century, had become a major industry there. Having no operational zone assigned to them, Amikwo smith/physicians pirated into those of Agulu, especially the rich Niger delta area. War erupted when the Awka council of elders could not resolve the problem.[40]

The war was apparently fought with great animosity. When Reverends T. Dennis and S.R. Smith visited Awka in 1904, they found extensive ruins of houses burned down during the war inhabited by monkeys, a totemic animal in Awka.[41] It was the intervention of a British force that brought the bitter conflict to an end. The ferocity with which the war was fought may well have reflected the lucrative nature of the industry.

Summary

Long distance travel was an integral feature of traditional smithing in Igboland. Although this phenomenon was necessitated by a variety of factors, the ultimate rationale for it was economic -- the attempt to maximise profits, including profits from sidelines. Long distance itineration was feasible because the smiths had disengaged from agriculture, depending on farmers for

their food supply. Because of the extensive nature of their tours and the relative insecurity of the routes, itineration demanded very careful planning on the part of the smith. The unique importance of their profession, made the smiths welcome guests wherever they went.

Section Two: Case Studies of Itineration

The previous section was aimed at giving the common organisational frame of the itinerant journeys of Igbo smiths in precolonial times and the underpinning rationale. This section provides case studies of the operation of the system by the four leading smithing communities, namely, Awka, Nkwere, Abiriba and Udi. Two other examples are drawn from Ohafia and Aku in Nsukka to demonstrate that the four major centres did not monopolise the industry entirely.

I. The Itineration of Awka Smiths

Reports of foreign visitors to Igboland in the nineteenth and early twentieth centuries assign a prominent place to Awka in the iron industry of Igboland. During a week's tour of the Onitsha - Awka district in 1899, T.J. Dennis, a European Christian missionary, put her impression of Awka as follows:

> The majority of the people are blacksmiths, and in pursuit of their craft travel to every part of the Ibo country, and even beyond its borders. There is scarcely a town or village without its

> primitive smithy, in which the Oka smith not only sharpens and repairs but manufactures from iron and brass imported by [the European] traders, the various weapons and tools and ornaments in use among the Ibo.[42]

Basden, a missionary colleague of Dennis, was to spend seventeen years at Awka. He held an identical view, asserting that "the Awka smiths dominate the situation and they hold the leading place throughout the Ibo country and in many places beyond".[43] Recent literature has followed suit, merely echoing the conventional refrain. Awka is thus described as taking the "pride of place"[44] in the industry "followed by Nkwere and Abiriba",[45] Udi is out of the reckoning.

There is no doubt that in the nineteenth century at least, Awka smiths were frontliners in the metal industry not only in Igboland in particular but in southeastern Nigeria as a whole. But that they held "the leading place" or the "pride of place" is a different matter. A hierarchical arrangement of the major smithing communities in an assumed order of importance over-simplifies, from our evidence, a situation more complex than textbook generalisations may pretend. The existing literature is misleading because Awka has received far more attention than the other communities.

The dominance of one of these groups in any particular part of Igboland or southeastern Nigeria was

largely influenced by the geographical proximity of the group to the area in question. Basden and Dennis seem to have been familiar with the Onitsha - Awka area, and had little or no acquaintance with the central and eastern parts. In these parts, as the experience of Leonard clearly shows,[46] it would have been extremely difficult for them to miss the dominant presence of Abiriba and Nkwere smiths.

After years of familiarity with Igboland, Leonard came to a more realistic assessment of the Awka factor in parts of Igboland:

> The inhabitants of this district have been blacksmiths and travel all over that portion of the Ibo country which is contiguous to the Niger, as well as the Ijo, Oru and Brass territories, practically dividing the delta with the Nkwere, another Ibo clan of smiths, who take the eastern division.[47]

Leonard's view was shared by Jones, who was also very familiar with the southeastern Nigeria region in general and Igboland in particular.[48] The above caveats are not intended to detract from the undeniable evidence that Awka smiths did cast something of a colossal shadow on the landscape of metal technology in nineteenth century Igboland. What is being suggested is that the picture was less monolithic than the silence in the literature in respect of the other smithing centres might imply.

The first long distance travels by Agulu Awka smiths

were probably made in the direction of the Niger River. They were perhaps lured by that river as an artery of communication and by its delta as "the frontier of opportunity".[49] The Niger facilitated trade between the delta and the hinterland which included Igboland, Igala, Igbirra and Nupe. The trade was based, as we have seen, on variations in the physical environment which resulted in complementary interdependence. The European advent was to carry the delta - hinterland trade to new heights by the eighteenth century.

Itinerant smiths were all involved in trade as a sideline. The Niger and its delta area offered a bright opportunity for smiths to engage in trade in addition to their primary occupation -- smithing. Furthermore, the quest for imported metals may have provided a strong incentive for the smiths to head to the delta area. As local iron became more and more expensive, the smiths opted more and more for unfabricated metals imported from Europe.

By the early eighteenth century, Umuanaga lineage were making regular trips to the delta area, their zone of operation. In the nineteenth, Umubele smiths were travelling regularly to Ayangba, Idah, Ejure and Lokoja on the Niger-Benue confluence.[50] Idah was the seat of the Igala monarchy, and shared with Ejure the status of the

nerve centres of trade in the kingdom. Lokoja was the operational base of the smiths who went as far as the Igbirra country. On their own, Umuogbu smiths had gone way beyond the Benin country into the Ekiti district in Yorubaland, c.1874-1904. Their operational base in the Ekiti district was Siluko, a town situated on the bank of a river by that name.[51] Siluko lies some five hundred kilometres from Awka!

While some of the smiths ranged so far to the west, others concentrated their activities in the area just west of the Niger with Asaba, Ogwashiukwu, Agbor and Warri as their primary operational bases. Neaher, who has conducted a close study of the activities of the itinerant Awka smiths among the southern Edo people, has emphasised the ubiquity of these craftsmen in the area.[52] Nkwere smiths may have worked in the area, too, but their presence was probably less pervasive. The presence of Awka smiths in the Cross River and southern Igbo areas was far less visible than in the other parts.

The organisation of itineration in Awka differed in one significant way from that of the other groups. Each lineage divided its working smiths into two groups. One group travelled out for one season, while the other stayed back at home. At the end of the season, the groups exchanged roles. This division was evolved around 1784-

1814, as a result of hard experiences which Agulu Awka had suffered in the hands of its non-Awka neighbours, especially the village of Nofia. Hitherto, Agulu smiths had been going on their tours more or less en masse, leaving behind mainly aged men and women, and children. Their neighbours often took advantage of their absence to raid their homes and loot their property.[53]

This state of insecurity had been exacerbated by the penetration of northern Igboland by Aro slave dealers earlier in the century. The slave raids organised by Okoli Ijoma, a man of Aro ancestry, is still vividly recalled in Awka oral history.[54] Each group keeping watch at home divided its members into two sub-groups. One sub-group took short trips of not more than three months to the proximate communities. Young men were not allowed to practise smithing in Awka. This was left to the elderly ones who had retired from itinerant smithing.

The groups whose turn it was to travel left Awka in March/April. The travel season lasted about nine months by the end of which all the itinerants were expected to come home. A synthesis of the oral narratives would put the main travel routes as follows. For those villages whose zones of operation were in the Igala, western and eastern delta and the Benin areas, the trek route passed through Okpuno, Isu, Norgu, Awkuzu, Ifeje, Ukwulu to




MAP FIVE

Trade and Itineration Routes

Onitsha on the Niger. The lineages involved were Umuogbu, Umubele, Umuanaga and Umuenechi. Some groups travelled to Onitsha by ugbo amala, dug out canoe, from the village of Amansea on the Manu River.

At Onitsha, the groups diverged according to the directions of their zones. Umuogbu crossed the Niger to Asaba from where they moved on westwards to Ogwashiukwu or Umunede. At either place, the group veered south to the Urhobo, Isoko and Kwale area. A section of the group continued the journey westwards through Agbor and Benin to the Ekiti Yoruba territory. The journey from Benin to Yorubaland is said to have been particularly rough as the smiths had to plod their way through very dense forests. The smiths were led through the jungles by bands of hunters for whom they produced and repaired guns and traps, onya igwe. During such long journeys, it was not uncommon for some of the younger ones to develop sore feet. These were treated with fresh palm oil.[55]

If the journeys were harrowing, the fruits of labour were sweet. According to Nwakasi Chideze Ozo of Umuogbu, a retired smith, a gun which cost about fifteen shillings at Awka at the beginning of this century cost about three pounds ( 3) in the Siluko area.[56] Guns were the primary products of the smiths who operated in the Benin and Yoruba districts, thanks to the abundance of game and

popularity of hunting in these districts. In the Benin area, brass objects used by district and village heads as symbols of authority were also popular.

At Onitsha, the Umuanaga and Umubele groups boarded ugbo amala to the delta and the Igala area, respectively. The main products of the smiths in the delta were matchets and fishing gear such as traps and hooks, and axes and carving knives, for boat building. Idah was reached by land and water transport. The land route passed through Achala, Aguleri, Ogurugu and Adoru. From Idah the route ran northeastwards to Ejure, perhaps the most important horse market south of the Benue. The smiths' products in Igala included agricultural tools, guns, spears and title regalia and ornaments such as staffs, bracelets and anklets.

For most of the smiths, Idah and its immediate vicinity constituted the primary focus. There was a great demand for ritual, title and royal paraphernalia and for guns in that nucleus. Some of the famous smiths became, to all intents and purposes, specialist producers for the Igala court. From being mere artisans, they went on to acquire a considerable influence in Igala politics and society. Among such smiths, the traditions remember vividly Ozo Nnonyelu and his son, Nwokoye Nnonyelu, a retired smith, now better known as Nwokoye Idah. Ozo

Nnonyelu was reputed to have been a confidant of Ocheje Onekpa, the Atah of Igala who died in 1903.[57] Nwokoye Nnonyelu became a virtual Prime Minister to Atah Obaje Ocheje who died in 1945.[58] Neaher reports of another Awka man who had a title conferred on him by the Atah.[59] While most of this evidence derives from the nineteenth century, it would seem logical to assume that Awka's influence grew and developed in the eighteenth century following the appointment of a hereditary Igbo prime ministership under the Kwararafan dynasty which took over in Idah after c.1680.

The strong presence of the smiths in areas such as Igala and Benin with long traditions of iron technology may have been due to three primary reasons. First, as Boston noted, Awka smiths possessed production techniques and organisational ability superior to their Igala counterparts.[60] This may account for the deference the royal court showed their Awka guests. In some parts of the kingdom, it is said, the presence of the smiths resulted in the demise of the local industry, the Basa-Komo district near the Niger-Benue confluence being a typical example.[61] In the Idoma country, the local smiths found themselves confronted by Igbo smiths whose products sold cheaper than theirs.[62]

Second, Igbo smiths were habitually mobile. Their

counterparts, for instance in Benin, Idah and Nupe, were the opposites, as they were controlled by the state authorities. Neaher labels the Benin brass casters as "wholly stationary".[63] The immobility of the smiths helps to explain the relative ease with which their mobile Igbo counterparts were able to carry their own industry, as it were, right to their doorsteps. Third, royal constraint may have had the effect of freezing the creativity of the craftsmen and of stunting their competitive spirit. Igbo smiths were not inhibited by such control. On the contrary, the socio-political environment in their home encouraged them to be enterprising and innovative.

For the smiths operating in the Abakaliki, Cross River and southern Igbo areas, a number of travel routes were available but the main ones were as follows. One passed through Ebenebe, Udi, Agbani, Nike to Abakaliki. The smiths heading to the Cross River veered southeast at Agbani through Awgu to Okposi/Uburu from where they proceeded to Afikpo by the Cross River. The groups operating in southern Igboland diverted at Awgu to Okigwe and from there to Umuahia, Ngwa and Owerri.

The Strength of Awka Metal Industry

The Awka smithing industry was no doubt at a flourishing state in the nineteenth century and exhibited a great deal of vigour. These facts have generally been

recognised in the existing literature, though scholars have erred in assuming that the situation had been so from the beginning. But the factors responsible for the rise of Awka to a position of eminence in the industry have hitherto not been addressed. These are considered below.

It is now a generally accepted theory among historians, geographers and anthropologists of Igboland that the Awka district was one of the early settlements of the ancestors of the Igbo.[63] It is also thought to have developed a relatively dense population perhaps long before the inception of the Atlantic slave trade. The economy itself appears to have been diversifying even before iron technology was introduced there. The Amaenyi section were predominantly farmers while Amikwo were itinerant physicians and traders. The trend towards diversification was probably made feasible because the people may have had access to iron tools before they became producers too.[64]

Awka enjoyed a central place status among the neighbouring communities. It was frequented by people from the outlying districts and from distant places, for different reasons. It was the home of the Agbala oracle.[65] The role of oracles in inter-group relations in precolonial Igbo society has been emphasised by Ottenberg.[66] Agbala was the most important oracle in

northern Igboland. In some respects, its position was analogous to the more famed Ibini Ukpabi of Arochukwu. It was credited with the powers of divination and of solving all sorts of human problems, mundane and spiritual. Supplicants from various parts of northern Igboland, Igala, Idoma and the Niger delta came to Awka to consult it.[67]

It was an important function of all Awka travellers to advertise the oracle and to spare no effort in inducing their hosts to have recourse to it in resolving their intractable problems. Awka smiths were deeply involved in performing this role. Reverend Basden observed that the smiths were, perhaps, the most active proselytisers of the oracle.[68] The itinerant character of their profession made them ideally suited for this role. Through their association with Agbala, the smiths could travel, perhaps, more freely than the other smiths from the communities which did not enjoy the extra bonus. Nkwere people, significantly, referred to Awka smiths as *oje na mmo*, 'people who visit or communicate with the spirit world'.[69]

Because of its central place status, Awka developed into a large community *vis a vis* its neighbours. When Mrs. Dennis visited the town in 1899, she described it as "by far the best and largest town in the Ibo country with the exception, perhaps, of ... Aro".[70] The Awka people

themselves, boasted to her that it took from sunrise to sunset to walk through the town. Its market, Oye Awka, was the central market for the surrounding communities, and was attended by "the women from all the neighbouring towns" who numbered about "2,000 ... in the market when I visited", wrote Dennis.[71]

Awka smiths were fortunate to have Amikwo and Umudioka as well travelled groups. Amikwo were physicians, and as V.C. Uchendu states, physicians were among the most travelled in pre-British Igboland.[72] Amikwo were instrumental in opening up certain markets for Agulu smiths. It is probable that during the infancy of the technology in Awka, the smiths travelled under the umbrella of Amikwo whose travel areas included disparate places in northern Igboland, Idoma, Igala and the Niger delta.

Although the Agulu - Amikwo relation soured in the nineteenth century, it seems clear that before then, the relationship was very close and cordial. This was facilitated by their marital connections. It may be recalled that it was Amikwo which sponsored the legitimation of Agulu Nnobuzo as a full citizen of Awka. We have seen also that Amikwo children were among the first to be apprenticed by Agulu smiths outside the smithing village.

Amikwo's role in promoting Agulu's industry was complemented by Umudioka. This lineage, as indicated earlier, consisted predominantly of specialists in teeth filing and face and body scarification -- igbu ichi and mbubu afo. In parts of Igboland, igbu ichi was a sign of prestige for the men, just as mbubu afo was for the women.[73] In the performance of these roles, Umudioka men travelled extensively. On a visit to Awka during the Easter of 1904, Holbrook, a Christian missionary, observed that Umudioka "call themselves 'ndi ije', travellers", and that,

> different companies of [the] men go out year by year for several months to places quite far away, and some times bring back slaves and other cutters (tatoo) and earn a good deal by cutting the decoration on the bodies of peoples of other towns. Every man who is not a slave is cut on the face. The girls and women are cut on the face and front of their bodies.[74]

We may recall that Umudioka developed the trade in iron bloom between Awka and Udi. To a very large extent, it was this trade which enabled the smithing industry to take root in Awka before imported iron became accessible to the smiths.

Another factor which helped the iron industry to blossom in Awka was that the town was well situated to tap the markets of Igboland, Idoma, Igala and the Niger delta. Awka lay at the node of two important trade routes. One

was aligned in a south-north axis from Brass in the delta through Degema, Yenogoa to Ahoada. From there, the route passed through the densely populated Igbo heartland of Owerri, Nkwere and Okigwe to Awka. From Awka the route continued to Idah via Awkuzu, Aguleri, Adani and Ogurugu. The other route ran in an east-west direction from the Abakaliki - Afikpo area through Nkanu, Ngwo and Ebenebe to Awka, and thence to Onitsha via Nteje and Nkwele.

This advantage enabled the smiths to participate in the commercial activities of the varying ecological zones. For instance, the smiths who travelled to Igala came back to Awka with livestock, textile materials, salt and natron. They also bought slaves at Idah and Ejure and used them in transporting their purchases. At Awka, the slaves were sold to Umubele smiths whose work zone was the Niger delta. Those who travelled west of the Niger came back with elephant tusks, camwood (ufie and ọdo) and cotton goods made in Ekiti (Yoruba) and Asaba. Those who itinerated in the Niger delta area returned with European imports mainly as well as local salt and fire-smoked fish.

Another factor that aided the growth of the Awka industry was the close symbiotic relationship between the smiths and the Nri monarchy and ritualists. This relationship ante-dated the iron industry; it was pioneered probably by Amkwo who supplied elephant tusks

to the Nri court. Facilitated by the proximity of Awka to Nri, the relationship grew in strength in the course of time. The Nri ritualists travelled extensively removing abominations and conferring titles on important dignitaries. They depended upon the smiths for the metal regalia used by those upon whom titles had been conferred. For the Nri monarchy, they produced items such as bells, anklets, pendants, bracelets, wristlets and swords, made of brass, bronze or iron.

Over and above all these factors was the genius of Awka smiths as entrepreneurs. Their metal products may not have been of a superior quality to those of Nkwere, Abiriba or Udi, but Awka smiths seem to have pursued their profession with an uncompromising and even Machievellian spirit. Now and again, this researcher encountered in Nkwere, and Udi particularly, traditions suggesting that Awka smiths were vicious in their business approach. Nkwere traditions say that the only metal product Nkwere smiths did not manufacture was the ozo title staff, ngwu aghilighi -- not because they could not. "To avoid trouble", said a respondent, "we left the production to Awka".75

Agulu Uwani and Agulu Umana traditions make more uncomplimentary remarks about the Awka smiths' professional practice or lack of it. The smiths are

accused of having combined work, diplomacy and blackmail in one mix. It is charged that they did not mind duping their customers and clients just to acquire material wealth. According to Agulu Umana traditions, whenever Awka and Agulu Umana smiths were working in the same community, the former made every effort to poison the mind of the host community against the latter. It is alleged that sometimes at night, the Awka smiths went as far as burying gun powder underneath the hearths of Agulu Umana smiths so that when a fire was made, an explosion would occur and destroy the smithy. One smith is alleged to have been killed in such an explosion.[76]

The veracity of these allegations is hard to establish with certainty. Awka traditions dismiss them as mere fabrications. However, Meek's observation of Awka smiths' business practice tends to lend credence to them. He indicated that Awka smiths travelled with a certain powder which caused irritation when it came in contact with the human skin:

> ... the blacksmiths of awka commonly carry a supply of this powder when they go on their travels, and they dispose of some of it secretly in the bed of rich men, who promptly call for a doctor and are treated by the smith. The smith not merely receives a fee, but takes the bed away, saying it must be tenanted by devils.[77]

The Awka smiths may have employed unethical means to achieve success in their profession. Yet it seems certain

they demonstrated a considerable enterprising spirit, and had a knack for business. Their peregrinations in the Edo and Igala territories brought them in contact with the brass casting traditions in these areas. Awka smiths produced by the cire perdue technique, bronzes that were unique to their Igbo heritage, especially the ofo. Ofo symbolised in traditional Igbo society the link between the living family and their ancestors. Every family head kept custody of the family ofo.[78]

In addition to their products, the Awka smiths were involved in distributing the brass works of Idah and Benin casters. At Idah, they bought odu bronze bells. These have been found distributed all along the Niger down to the delta, and Awka smiths are believed to have been the main vendors.[79] At Benin, they bought the ada (swords of office) which were in great demand in the Niger Igbo chiefdoms. From distributing these products, the smiths went on to duplicate them for those areas where the demand was acute. Their mobility made them more readily on hand to satrsfy the demand of numerous local patrons than the official casters in Benin and Idah.

II. The Itineration of Nkwere Smiths

Nkwere tradition of itineration shares some features with that of Awka. Both had the unique position of depending entirely on 'external' sources for the supply of

bloom and, later iron bars, a situation which made them more outward-looking than the other major centres. Both were front-liners in the industry in the nineteenth century, adopted the zoning system and had extensive work orbits.

The initial itinerant journeys of the Nkwere smiths were made within familiar local environments. The journeys rarely went beyond a walking distance of between one and two days, approximately between thirty-two and sixty-four kilometres. The communities included in this work orbit were Amaigbo, Awomama, Eziama, Mgbidi, Owere Nkworji, Okwele, Orlu and Etiti. These communities may loosely be described as falling in the Orlu - Nkwere culture complex.

Nkwere's early long distance itineration was made in two directions. One line of movement was to the northeast, and the target was Uturu, Nkwere's initial source of iron. The second line of travel was to the south with the Niger delta and Ogoni as the targets. These journeys seem to go back to c.1656-1686. The early travels to the Okigwe - Uturu area gave the smiths a prior leverage to establish their presence in the broad front of Afikpo - Ohafia - Nkporo by c.1716-1746. Their presence in this area continued to grow with time, especially when they became associated with gun repairs and production.

In the nineteenth century, gun-smithing had become synonymous with Nkwere smiths in the minds of the inhabitants of this area.

Indeed, in the nineteenth century, Nkwere was at the apogee of its technological influence. Traders from the neighbouring communities found it helpful to travel as umu Nkwere, 'Nkwere sons'.[80] The practice became so pervasive, it was difficult to distinguish between the real Nkwere and the impostors. The real Nkwere then started to call themselves Nkwere kpom kwem, 'Nkwere of the true descent'.[81]

The identification of Nkwere smiths with gun-smithing continued far into the twentieth century. Udi smiths who worked in the Abakaliki - Afikpo and Ohafia - Nkporo areas indicate that the indigenous people used to call them umu Nkwere. For instance, Nwigbo of Agulu Umana, c.1830-1860, was called Nwigbo nwa Nkwere. His son, Aneke Nwigbo, born c.1895-1899, recalls that throughout his more than thirty years of gun-smithing in the Ohafia - Nkporo area, everybody knew him as Kalu nwa Nkwere.[82] Kalu is a popular name in the area.

Okezie Idika Ibe, a native of Okon - Aku in Ohafia, was a specialist gun-smith trained in the craft by Aneke Nwigbo of Agulu Umana, Udi. Ibe recalled that during his years of gun production (c.1940-1966) in the Ezza and Izzi

clans of Abakaliki, the people referred to him as nwa Nkwere, to his unspoken dislike.[83]

The itineration of Nkwere smiths to the delta region was induced by the same considerations which drew their Awka counterparts to its western portion. In addition, the Ogoni country held out promising prospects to the smiths. The Ogoni people appear to have been hard working farmers, who produced plenty of yams and cocoyams. Some of these were sold at Bonny, Okrika and Opobo. During the season of light farm work, the men took to hunting. The Ogoni country was, therefore, a fertile market for agricultural tools and hunting weapons, such as spears, arrowheads, hunting bells (ikpo knita) and, from the late eighteenth century, guns.[84]

The demand for guns was high, but a substantial proportion of the hunters lacked the financial resources to buy one. In a manner characteristic of capitalist entrepreneurs, some of the Nkwere smiths working in the area devised an equipment rental arrangement with hunters who could not afford a gun. Guns were rented to them on the agreement that any game killed would be shared between the hunter and the owner of the gun, the latter getting about sixty percent, the former, forty. This arrangement seems to have become a lucrative source of income for the smiths. One of them, Aguyua, reputedly became very

wealthy through this process. By the end of the nineteenth century, he owned more than a hundred guns which he rented out to hunters.[85]

Nkwere itineration in the Igala and West Niger areas appears to have been far less pronounced than it was in the Ogoni area, certainly less effective than that of Awka in these areas. As suggested earlier, geographical proximity seems to have influenced the areas of dominance of particular groups. The farthest point Nkwere smiths went west of the Niger before 1900 seems to have been Agbor. In the Igala area, it would seem that the smiths were visiting Idah and Ejure by c.1886-1916, though their number and influence appear to have been inferior to Awka's.

III. The Itineration of Udi Smiths

A number of smithing communities existed in precolonial Udi. These included Agulu Umana, Agulu Enugu, Agulu Uwani, Ogui in Eke, Umuabi and Umuaga. Among these, only Agulu Umana and Agulu Enugu seem to have been involved in itineration on a significant scale. The rest apparently confined their travels mainly within their immediate vicinity. Agulu Enugu was founded probably in the nineteenth century when a certain group broke away from Agulu Uwani.

The earliest authenticated evidence of itineration by Udi smiths relates to the introduction of iron technology in Awka by Nnebuzo, c.1604-1634. But from what is known of the behaviour pattern of itinerant smiths, Udi smiths may have been travelling to Awka long before Nnebuzo's emigration. A smith was not likely to settle in a community unless he had been in the habit of visiting it. The central position which Awka occupied among the communities in that zone and the proximity of Nri town may have attracted Udi smiths there.

But the Nsukka district seems to have been the more popular work orbit of the smiths. However, for a substantial number of the smiths, the final destination was either Igala or Idoma. The indications seem to be that Udi smiths were operating in the Ibaji district in Igala by the mid-seventeenth century, and probably reached Ejuxe by the end of the century. Their journeys in the Idoma country had by c.1718-1748 taken them to Ugbokolo, Otukpo and Adoka. Gboko in the Tiv territory was reached probably just before the advent of colonial rule.[86]

By far the most impressive itineration of the Udi smiths was made in the region to their east, that is, the region extending from the Ngwo - Nkanu district through Abakaliki, Obubra and Ikom to the Cameroons. Ozo Igbo, c.1811-1841 and Ude Omekwu, c.1814-1844, are best

remembered in Agulu Umana traditions as among the pioneer smiths who travelled to the Ogoja and Ikom area.[87] The initial journeys to this area were probably made around 1854-1884. By c.1874-1904, the smiths had gone beyond the present day Nigerian boundary to the town of Bali in the Bamenda district, Cameroons. Bali was the seat of a powerful chiefdom. The chiefdom was apparently linked to the Bende - Uzuakoli and Uburu - Okposi trading network.

The account of how the first journey to Bali was made provides an interesting insight into the human drama which was often woven into the itineration process. What follows is an amalgamated version of the traditions.[88]

Many years before the oyibo (Europeans) came into Igboland, Agulu Umana smiths had been travelling to Ikom, Obudu and Ogoja. Guns and women's ornaments were their major products there. One day, traders from Bali were on their way to the Uzuakoli market, among other things, to buy gun powder, nsi egbe. At Ikom, these traders saw Agulu Umana smiths repairing old guns and producing new ones as well. The Bali people had hitherto thought that only the oyibo could make guns and repair them. Upon their return home, they narrated their experience to their chief.

The Bali chief was very powerful and was obeyed by all his subjects. He sent his guards -- able-bodied and

hefty men -- to invite the smiths to his domain. The smiths turned down the invitation politely, saying that a solid, binding agreement had to be reached with the chief, through his representatives, before they could undertake the journey. The emissaries returned to Bali. They were sent back with a pledge from the chief to protect the smiths from all physical harm and to pay them adequately for any job they would do for him. The journey to Ikom took about seven days.

When they arrived at the chief's palace, they were shown a staggering heap of unserviceable guns, stock-piled in a little room. They were over two hundred. After the smiths had settled on remuneration, a workshop was erected. Thereafter, the workshop was ritually blessed; the smiths started to repair the guns. The chief was extremely pleased when he saw that the smiths indeed were able to repair the guns. The smiths were lavishly feted, a cow being slaughtered now and then to prepare meals for them. Because of shortage of wood for charcoal, the chief once ordered an entire village to evacuate so that charcoal could be produced from the wooden frames of the houses of the villagers.

Bali subsequently became the focal point of Agulu Umana smiths working in the Bamenda district. From there, the smiths fanned out to the outlying communities, under

the aegis of the Bali chief. By c.1917, the smiths had travelled as far south as Kumba and Victoria, after a few years' stop at Konye - Bakundu. At Bakundu, one of the smiths earned the nick-name madiba, meaning water. He was so named because, like water, he was considered indispensable to everybody in the community.89. He produced various iron tools sorely needed by people of different occupations -- farmers, hunters, fishermen and carvers.

For Agulu Umana, the general area stretching from Obubra through Ikom, Mamfe to Bamenda turned out to be a favourable market. In this area, there was much demand for guns and traps, quite apart from the traditional agricultural tools. Leglets and anklets were also in high demand. They were used by girls undergoing the fattening period preparatory to marriage. The area also provided ample opportunities for trade, with the Cross River serving as the highway between the Efik at the Bight of Biafra and the Upper Cross River basin.

The penetration of the Cameroon by the Agulu Umana smiths is significant from three perspectives. First, it is a testimony to the fact that Udi smithing demonstrated a resilient capability and flourished to a much greater extent than the literary prominence of Awka in particular, and to a lesser degree Nkwere, in the smithing arena might

incline us to suspect. Though the emergence of these two centres undermined the earlier prominence of Udi, there was sufficient scope within the southern Nigeria territory for all the groups to operate profitably.

Second, the tradition is an account of human endeavour requiring the frontier spirit. In an age when the feet were the primary vehicle of transportation, a journey of over 500 kilometres through tortuous and slippery footpaths and dangling rope bridges was no mean endeavour. The journey to Bafenda from Udi took as long as twenty-four days. Except at river crossings, all of it was done on foot, as beasts of burden were excluded by the prevalence of trypanosomiasis. This meant that the smiths had to tramp from one community to another, covering an average of thirty-two kilometres a day. The route ran through Ngwo, Nkalagu, Ezzamgbo, Abakaliki, Ngbura, Obubra, Okuni, Ikom, Mamfe and Batflo to Bali.

Finally, it is curious that neither in the earlier nor yet in the more recent literature have the Udi craftsmen received any attention. We mentioned earlier the report of Thomas in 1913 on the laws and customs of the Awka district, which included Udi. He gave some space to the Awka industry, but none to that of Udi, except for a passing mention that iron was smelted in the area in the past.[90] Such a glaring omission, which has continued to

be repeated by others, raises scepticism over the reliability of some archival source materials which some researchers tend to treat with uncritical, even sacrosanct, reverence.

IV. The Itineration of Abiriba Smiths and Others

In Abiriba, smithing was limited to Ndi Ezema compound, comprising three extended families. The occupational travels of this group were on the whole oriented mostly to the Cross River basin. Their main places of visit on the western territory of that river included Abam, Arochukwu, Igbere, Edda, Nkporo, Ohafia and Ututu. Across the river to the east, their main places of visit were Akunakuna, Calabar, Ediba, Ikot Okpora, Itu, Okurike, Nko, Nkomoru, Obubra, Ugep and Umon.

Indeed, Abiriba had a predilection for maritime business, a propensity which still persists. They were easily the dominant smiths in the Cross River area. By the time Reverend Hope M. Waddell of the Scottish Mission arrived at Calabar in 1846, Abiriba smiths had long been established there.[91] At Calabar they made staples, shot, needles, and fixed brass leglets on ladies of high estate. They also produced copper wires from copper rods, which were used for trade transactions for which a rod was of too high a value. The Efik called these copper wires obubit okuk.[92] These copper wires were very important in

the palm oil trade of the nineteenth century.

The smiths' activity in the Cross River basin was formulated around two commercial centres -- Nkomoru and Umon, from where they toured the peripheral communities. By the turn of the nineteenth century, two distinct groups had emerged among the smiths and were appropriately known as Abiriba Nkomoru and Abiriba Umon.[93] Although there was no formal division of work zones between the two groups, the former dominated the Upper Cross River (elu anyim) and the latter the lower part (ebem mmin). The Umon group was probably better off than their Nkomoru counterparts because of the strategic location of Umon in the trade between Calabar and the hinterland. However, in c.1910, disagreements with the local people led to the eviction of the smiths from their Umon base. They consequently lost their leading position in the area.

Meanwhile, a third group of smith-traders known as Abiriba Bende, had emerged. When Bende lost its leading position to Uzuakoli as the nexus of the hinterland trade in southeastern Nigeria in 1897, the group's name was changed to Abiriba Uzuakoli.[94] As the names imply, the Abiriba Bende and Abiriba Uzuakoli were oriented to Bende and Uzuakoli. But it does not seem they went beyond these centres, as their traditions are silent about itineration beyond that zone.

But the circulation of their products did. During his journey from Akwete to Bende in 1896, Major Leonard was impressed by the ubiquity and popularity of iron and brass works produced by Abiriba smiths. He concluded that Abiriba was a town whose

> inhabitants consist of nothing but smiths, who do all the work in brass and iron for a great distance around. Since we have started I have noticed instances of their handicraft in brass keys, ... which the people of these parts wear suspended to their wrists, in rings of brass and steel, with which the vain belles and coxcombs load all the fingers of both hands; also in long sticks, to which are fitted brass rings at intervals ... -- which sticks seem to be greatly in vogue in all the towns through which we have passed.[95]

The above observation of Leonard emphasrses two points made earlier. One is that it is misleading to dub any one of the four major smithing centres as holding the leading position. The other is that the dominance of any of the groups in any area was usually related to the geographical proximity of the group to the area.

Abiriba had a working relationship with Aro traders.[96] The latter supplied the former with iron bars and brass rods as well as other European imports in return for their products and slaves. It is probable that Aro traders were the distributors of the wares which Leonard described. The territory extending from Bende through Umuahia, Ngwa and Akwete to Obegu was among the most

important trade zones of the Aro. It is germane to point out that apart from the luxury items which attracted Leonard's comments, the Abiriba smiths produced the traditional farming and hunting tools and domestic items.

Although long distance itineration was dominated by the 'big four', it was not their sole monopoly. Smiths from some of the other less well known centres took part in it. Two examples, drawn from Aku and Ohafia, should suffice to show that the smithing industry was far less monolithic than the generalisation in the literature may pretend. The itineration of Nsukka smiths was generally localised within the Nsukka district and the Idoma - Igala border communities, even though the Nsukka area received iron technology much earlier than the rest of Igboland.

Aku smiths were exceptions. Their traditions suggest that before the arrival of Ushene Agulu Eha, the smith/physician from Eha Alumona, c.1583-1613, the Enu Enu and Nùa inhabitants, themselves smiths and farmers, had been making regular trips to Igala.[97] However, the arrival of the new immigrants seems to have injected greater momentum into the itineration of Aku smiths to Igala. The traditions relating to the journeys become more vibrant after Ushene Eha.

The main route of the Aku itinerant smiths passed through Lejja, Nsukka to Enugu Ezike on the Nsukka - Igala

border. There the route forked to the northeast and the northwest. The former went into Idoma, passing through Orokam, Otukpa, Ugbokolo, Ochobo to Otukpo. At Otukpa, the route forked again to Ankpa, the second capital of the Igala kingdom. At Enugu Ezike, some of the smiths went northwest through Angba and Allomo to Ejure.

The Aku itineration tradition is corroborated by the traditions of Amube Ezike, a small village in Enugu Ezike, located on the Nsukka - Igala border. The traditions recall that Aku smiths and traders returning from Idoma or Igala were habitually so noisy that their passage through the village never failed to attract the attention of the villagers. The people nick-named Aku people oji Eke eme Orie, 'people who use the Eke market day as Orie'.[98]

In the Ohafia case, the autobiography of Eke Kalu, c.1845-1875, provides an instructive insight.[99] At the age of twelve years, Kalu was apprenticed to an Ohafia smith, Nsi Oji. One of their travels took them from Ohafia, west of the Cross River, to the delta; they passed through Abiriba, Umuahia, Aba, Obegu and Akwete, where Kalu saw a European for the first time. From there they went on to Ogoni and Opobo, the journey covering more than three hundred kilometres.

Kalu's account is significant because it contradicts the popular notion which portrays the Ohafia as

"specializing in warfare the way other groups specialized in trading, farming or fishing".[100] People do not live by war, and although the Onafia people demonstrated remarkable military ardour in precolonial times, they were equally enterprising in other areas of human endeavour.[101] We earlier on referred to the itineration of Okezie Idika Ibe of Okon - Aku, Onafia, a specialist gunsmith whose main zones of operation were the Abakaliki and the Cross River districts.

Sidelines to Smithing

Invariably, all the itinerant smiths combined smithing with some other sidelines -- trading, medicine or divination; some acted as agents of oracles. Some of these roles have been mentioned here and there in the preceding discussion. It is necessary, however, to give the subject the close attention is deserves.

Trading was easily the most popular sideline of the itinerant smiths. The extent of their involvement in it was related to the spatial reach of their tours. The longer ranging the peregrinations, the greater were the chances of the smiths traversing varying ecological and economic zones. Variations in natural resource bases and inequalities in productive skills and capacities created a wide scope for the exchange of goods and services.

The smiths who travelled to Igala and Idoma such as

the Awka, Aku and Udi, traded in cotton textiles, livestock, especially horses, elephant tusks, salt, beads, slaves and natron, nnu akanwu.[102] When the commodities arrived in Nsukka, some of them were distributed through the existing network. Some were transported farther to the south. Horses were particularly in high demand in the Nsukka, Udi and Abakaliki areas. In the Nsukka and Udi districts, they were used in the funeral ceremonies of titled men, while in the Abakaliki area they were needed in taking the ogbu Enyinya title.[103] The title conferred on its holder high social and political standing in the society. The bronze figurine from Igbo-ukwu depicting the hilt of a horse rider seems to suggest that the horse trade may go as far back as the ninth century A.D., or, probably, much earlier.

Elephant tusks were in general demand throughout Igboland. But the concentration of the demand was in the Awka, Onitsha and Udi districts, where the ozo title system was best developed. An elephant tusk was a distinctive part of an ozo title holder's paraphernalia. The recovery of one tusk from the Igbo-ukwu excavations emphasises its long standing significance. Ivory bangles formed a part of the status symbols of Igbo women of estate. Ivory was exported to Europe during the slave trade period.

According to an Nkwere adage, ahia wu ikenga Nkwere, 'trading is the live wire of Nkwere'.[104] True to this adage, the Nkwere smiths were involved in trade to a greater extent than most of the other smithing communities, especially the trade in slaves. Nkwere traditions insist, though, that a substantial number of the slaves were handed over to them voluntarily by their hosts to be sold in distant markets. This category of slaves consisted of social outcasts who were considered a serious threat to the fabric of the society's existence. It may be recalled that Mbanasa, popularly known as Ja Ja (Jo Jo) in historical literature, was born in Amaigbo, not far from Nkwere; he was sold into slavery in the delta by an Nkwere man.[105]

The deep involvement of the Nkwere smiths in slave dealing was related in part to their close cooperation with the Aro. Some of the slaves they handled were sold to the Aro in return for gun powder, gin, textiles, iron bars and brass rods. Others were sold to the Niger delta middlemen who dealt with the European traders. So close was the Nkwere - Aro understanding that a mythical charter of common ancestry with the Aro was formulated by the Nkwere.[106]

The upper Cross River peoples produced plenty of yams and cocoyams, fire-smoked meat and ivory. The smiths from

Agulu Umana and Abiriba who worked in this area bought these products and hired canoes to transport them to the lower Cross River, especially to Itu and Calabar, where they were sold at substantial profits. For the return trip, the smiths bought European imports, which they resold at handsome profits in the hinterland.

While the Cross River oriented Abiriba smiths traded mainly in European imports, those who worked in the Bende - Uzuakoli area dealt more in local products: akwa mmini (towell) made at Akwete and Okigwe, salt produced at Okposi and Uburu, and raffia products from Umuahia.[107] With the inception of colonial rule, Abiriba abandoned smithing readily and went into trade. But the memorials of their former premier occupation survive, for instance, in their vocabulary. Thus uzu, originally meaning simply 'smithing', is the term the people apply to any person who has left home for economic or business pursuit.

On the whole, therefore, to the itinerant smiths, smithing and trading had to go hand in hand. It was impracticable to go on a professional tour without engaging in trading. The situation was created as much by design as by circumstance. Profits could be made by trading commodities from areas of plenty to those of scarcity. Also not only were smiths often paid for their services in kind, they worked in areas with diverse trade

currencies. For instance, in the eighteenth and nineteenth centuries the trade currency in the Nkwere area was ego kirikiri, or cowries. But the smiths who travelled to the delta and the Cross River areas found themselves in a different currency zone, namely, the manilla (okpogo) and the brass rod (mkpola), respectively.[108] One way to resolve the problem was to convert their currencies into goods which they could sell for cowries when they arrived home.

These trading activities yielded substantial profits to the smiths. A horse which in the late nineteenth century was bought for 100 to 150 brass rods in Ejure was sold at the Ibagwa Aka market in Nsukka for about five times that amount. In the Abakaliki district, horses were in such high demand that one was exchanged for four slaves.[109] A chip of natron which cost a brass rod in Idah was sold for seven to nine brass rods at Uburu. A flintlock gun cost about 12/6 d. at Uzuakoli in c.1900. It sold for 2.5 to 3 at Bali.[110] Although the transportation cost was probably high, all the indications suggest that the smiths made substantial profits from the transactions. Besides, most smiths bought slaves partly to carry their luggage and partly to resell at the termination of their journey.

The itineration of the smiths and their involvement

in trade was facilitated by a variety of factors such as the prevalence of a common trading system in much of southeastern Nigeria, the ubiquity of markets linked together by a network of routes, and the existence of the 'Aro pax'.[111] The Igbo and the Igala, for instance, operate the same four day and eight day market periodicity. They also have basically the same names for the market days. The Igbo have Afo, Nkwo, Eke and Orie. The Igala have Afo, Nkwo, Eke and Ede.[112] The Igbo smiths/traders operating in Igala presumably had no problem with the market system.

The trading network of southeastern Nigeria seems to have been anchored in Igboland. It extended into the Idoma - Igala country, Benin, the delta and the Cameroons. Some of the routes were of considerable antiquity and owed their origin and development to the itinerant smiths. Many of them certainly predated the Aro state which was probably founded or came into prominence c.1600. These routes were used by the fast emerging Aro traders/oracle agents. The Aro state in due course played a leading role in raising the importance of the existing routes and markets to new heights and in creating new ones, in imitation of the earlier ones.

By the mid-eighteenth century, the Aro had emerged as the most important factor in the trade of southeastern

Nigeria. Through the judicious use of their oracle, Ibini Ukpabi and their close alliance with the renowned Abam, Edda and Ohafia warriors, the Aro imposed their 'pax' on much of the region. Since the Aro were essentially a trading people, such a pax was seen as critical in the flow of goods and services throughout the region.[113]

At the end of the nineteenth century, the Aro had not less than ninety-eight trading settlements dotted over parts of southeastern Nigeria.[114] As Dike states, the Aro trade centres were observed as neutral zones where people from different areas of the region traded without hindrance.[115] The Aro raised to prominence the Bende/Uzuakoli and the Okposi/Uburu fairs.[116] These were the most important trading centres in southeastern Nigeria in the eighteenth and nineteenth centuries.

They were integrated functionally on a twenty-four day cycle, each fair holding for four days at a stretch once it was in session. Traders came to the fairs from diverse areas -- Idoma, Igala, the delta, Calabar and the Cameroons. The uniquely wide periodicity of the fairs and the four-day continuous session of each reflected the distances from which the traders had come, and the volume and multilateral nature of the transactions which took place.

The products bought and sold at the fairs were as

diverse as the areas from where the traders had come. The commodities also ranged from human beings to animals, and from the most expensive local manufactures, such as guns to the least expensive, such as needles. European imports were bought and sold, too, the main vendors being the Aro. To the smiths, the fairs were the foci for selling the products they had acquired during their itineration. The popular saying was that any goods which could not be found at the fairs, especially the Bende fair, could be got only in the spirit world. Before it waned after 1897, Bende was not simply a commercial entrepot, but also

> an industrial centre, ... the converging point of many craftsmen and specialists from different parts of the region, who, while the fair lasted, transferred their industries to temporary sheds and booths in and around the market place where they plied their trade. Among the craftsmen ... were ... iron smiths from Awka, Nkwere and Abiriba.[117]

Another sideline of the smiths was medicine and divination. Their role in this respect derived from the powers attributed to iron and iron workers. The smiths detected and protected society from witchcraft. They were a terror to thieves and the people of the underworld. Intractable judicial cases were often resolved through oaths taken by contestants at the smithy. In the Nsukka area only smiths could bury people who died 'bad deaths', for example, of smallpox or swollen stomach or legs.[118]

If a property such as a house or yam barn caught fire, it was a sign that the gods were in anger against the owner. Only smiths could make use of what might be left of the destruction. For the ordinary person, this might be possible if he or she had been fortified by a smith. Through these different adjuncts, as well as from their main occupation, the smiths acquired substantial wealth, and, on balance, were the wealthiest group in the society.

The Smiths' Annual Return and Celebrations

Most smithing communities celebrated their profession once a year; a few such as Umugwu Ekwom and Awka held it twice. The Abiriba called it Emume Anya uzu; Awka, Akputakpa; Nkwere, Oriri Ogadazu, and Udi, Eke Otutu or Akputakpu. The timing of the celebration varied, but generally this was between either December and March or August and October. It was mandatory for smiths on tour to return home for the celebration. The itinerant smiths bore this in mind and structured their work calendar to take account of it.

Failure to return attracted a severe penalty, except for excusable reasons. In such a case, the smith sent his own contribution for the purpose of making a sacrifice to the smithing deity. Failure to return on three consecutive celebrations, without acceptable reasons, led

to the defaulter berng banished from his town. Such a drastic action was usually a last resort. Generally, however, itinerant smiths endeavoured to come home for the celebration.

Smiths who had travelled very far away from home usually set out on the return journey weeks before the celebration. The return journey took the same shuttle pattern as the out-going journey. Upon arrival home, the smiths deposited their work kits at the shrine of their deity. The kits remained there over night or throughout the period of the celebration. In this way, the tools were reinfoced with fresh powers.

Every smith made his contribution to ndi isi uzu or ndi isi agulu, the council of elderly smiths who were responsible for organising the celebration. The contribution included drinks, fowl, goats, yams, and kola. These were used to prepare a feast. The day prior to the celebration was used by the smiths to reflect on the just concluded itineration and to commune with their deity. The problems encountered by the various groups were discussed and solutions to them sought. To this extent, the celebration was not merely a time for conviviqlities but also for a sober reflection on the previous season's outing.

In Udi, the council of elders counted the number of

smiths who had returned as well as those who had sent notices of regret. If there were smiths whose whereabouts could not be accounted for, the council sent a message to the chief whose territory they first passed through on the out-going journey. The message rea, ndi anyi nyere gi ha ezugi ezu: "the people we handed over to you have come back incomplete".[119] Because of the meticulous way the smiths were handed over from one chief to another, it was usually not difficult to discover the whereabouts of the smiths being sought. Onyishi Umunnamani, c.1849-1879, head of the Ngwo community, was reputed to have known by name all the Udi smiths who passed through Ngwo on their way to their places of work.[120]

The actual celebration was marked with merriment. The Awka and Nkwere celebrations were typical examples. In both places, the smiths' celebrations were fitted into the wider framework of other communal festivals. In Awka, a number of communal festivals preceded the Akputakpu; the most prominent being the Otite, a pan-Awka event celebrated in December/January.[121] It was a festival of reunion of returning travellers and the home-keeping ones. It was partly designed to ensure that occupational travels did not degenerate into mere wanderlust, and that itinerant craftsmen did not lose their home roots. Awka elders must have been outraged by the foreign tatoos worn

by the children of smiths returning with their parents from Igala.

Otite was celebrated with fanfare and pomp. It was an occasion when the people who had travelled out demonstrated in various ways the fruits of their season's labour abroad. They did this through lavish entertainment of their guests and relatives. Their exotic dresses and those of their entire families helped to mark them out from the crowd. This was why the itinerant smiths worked very hard and lived frugally in their places of work.

Akputakpu, which was exclusive to the smiths, came some native weeks after Otite. The celebration was held twice in a year. The first, Akputakpu Okochi (dry season), was celebrated in March, while the second, Akputakpu Udumiri (rainy season), was held in August/September. The latter was considered 'junior' to the former; it was attended by the smiths working in the Awka neighbourhood. On the other hand, attendance of Akputakpu Okochi was mandatory to all smiths. The basic aims of the celebration were identical with those of the Otite. In addition, the celebration helped to reinforce the solidarity of the smiths and to emphasise the special importance of their profession.

The celebration generated plenty of merriment and general excitement, as the grand finale of a smithing

season. Reverends Dennis and Smith visited Awka in 1904 during such a celebration. They observed that the whole town was agog with excitement as a result of

> the home coming of the younger men from distant towns of Iboland whither they go to work as blacksmiths. At this time of the year they come home and spend their gains amongst their people.122

The families of the smiths looked forward to the occasion with high hopes as they were certain to be showered with new and exotic dresses and ornaments. During the celebration, the wives of the smiths chanted and danced to the rather provocative song whose message was di agulu ka mma, "a smith husband is the best".123

In Nkwere, Oriri Ogadazu was preceded by Oriri Ajimiri; oriri meaning a festive occasion. Oriri Ajimiri was celebrated in honour of the ancestral deity of the Nkwere people, Ajimiri. It was an affair of all Nkwere people. Thankful sacrifices were made to the deity during the celebration for his protection of all Nkwere citizens at home and abroad during the last season. The celebration was characterised by social revelry and displays of affluence.

Oriri Ogadazu was exclusive to the smiths. During the celebration, they made offerings to their deity in appreciation of his guidance and protection during their tours, and for the honour of being members of the noble

profession. Those who had a successful season thanked him for his favours; those who did not requested a successful new season. The celebration provided the smiths the occasion to show their achievement through the demonstration of flamboyant consumption and generous gifts to friends and relatives.

## Conclusion

At the close of the nineteenth century, blacksmithing was a highly professionalised industry in some Igbo communities. The smiths depended largely on their profession for their livelihood, having divorced themselves from farming. This partly explains the tenacity with which they strove to limit the technology to themselves. The Igbo smithing industry was a uniquely itinerant phenomenon, a fact reflected in the extent to which the smiths spread their work orbits.

The organisation of the smiths' travels mirrored some cardinal features of the Igbo culture: the crucial place of kinship and group solidarity in social and economic relations, the spirit of enterprise and perseverance and competitive individualism. Though the smiths travelled out in kin-based groups, each person worked on his own account, the apprentices excepted. Hardy, daring and

diplomatic, the smiths demonstrated a high degree of the frontier spirit. Resourceful entrepreneurs, they had an eye for exploiting commercial opportunities outside their primary occupation of turning metals into consumption goods.

The enterprising spirit demonstrated by the smiths was, indeed, a product of the Igbo society in general. The Igbo, past and present, have been an intensely achieving society.[124] Unlike their Edo, Igala and Nupe counterparts, Igbo smiths were not shackled by royal control or patronage. On the contrary, some institutional mechanisms such as festivals and titles, were used as means of encouraging individual enterprise.[125]

Limited investment avenues bred and encouraged the propensity to consume wealth in as public a fashion as possible. The festivals were designed in part to share, display and even flaunt wealth. Wealth was made by individuals, but it was consumed in conjunction with the community. The festivals were to laud and elevate individual initiative but the community was to share in the fruits of labour of the individual. To this extent the principle of reciprocity and redistribution was operative, and the individual was subordinated to the higher ideal of communal solidarity. But this was not a submission to the Durkheimian conception of

undifferentiated communalism in which even the individual's soul was common property.[126]

CHAPTER FOUR: ENDNOTES

[1]Sundstrom, The Exchange Economy, p.158.

[2]Isichei, A History of Nigeria, p. 43.

[3]Ibid.

[4]Neaher, "Bronzes of southern Nigeria", 58; E.W. Hebert, "Aspects of the use of copper in precolonial West Africa", JAH, 14, 2(1973), 179-194.

[5]Cline, Mining and Metallurgy, p.114.

[6]Dieterlen, "A contribution to the study of blacksmiths in West Africa", 40-61.

[7]Equiano, Narrative, p.17.

[8]Afigbo, Ropes of Sand, pp.131-32; Floyd, Eastern Nigeria, pp.41-44; Karmon, A Geography of Settlement, pp.28-29.

[9]N.A.E., Report on Nkwere Town, Okigwe District, by C.K. Meek, 1931, CSE 1/85/4149.

[10]Fagan, "Early trade and raw materials", 24-38; Northrup, "The growth of trade among the Igbo."

[11]Ebenechi Eze, IHT 126; Ekwulu Agulu, Amokwe, 21 Jan. 1985; Robert Anekwe, IHT 12, Awka, 7 May 1983; Ofo Ogbonnaya, IHT 68, Ama Uwani, Aku, 6 Sept. 1984.

[12]Dugwu Ezea, IHT 59, Dimotue Aku, 5 Sept. 1984; Okpo Igurube, IHT 64, Ama Uwani, Aku, 6 Sept. 1984.

[13]See Hodder and Ukwu, Markets in West Africa; Ukwu (i), "The development of markets in Iboland", pp. 647 - 62; (ii) "The economic organisation of Igboland".

[14]Polly Hill, "Notes on traditional market authority and market periodicity in West Africa", JAH, 7(1966), 300.

[15]Aneke Nwigbo, IHT 111, Agulu Umana, 27 Nov. 1984; Okafor Nwoha, IHT 164; Isiagu Amikwo, 2 March 1985; Maduagwu Nwolisa, IHT 57, 20 Aug. 1984; Odo Madu, IHT 242, Eha Ndiagu, 26 June 1985.

[16]Abraham Igbokwe, IHT 41, Umukabia Nkwere, 1 Aug. 1984; A.C. Onyejiaka, "Origin and development of blacksmithing in Nkwere to 1945", Special Project in History, Nsukka,

pp. 22-24.

[17]Wilfred Anueyiagu, IHT 177, Amoji Nkwere, 28 March 1985; Ezekiel Asugha, IHT 184, Obinuhu Nkwere, 28 Aug. 1984; Ekejiuba, "Aro system of trade", 28.

[18]Ibid., 11-26.

[19]J.O. Igbokwe, IHT 52, Umuko, Nkwere, 15 Aug. 1984; John Orisakwe, IHT 40, Umuozu Isu, 1 Aug. 1984.

[20]Alili Nweze, IHT 187, Umueguru, Ibagwa Aka, 19 May 1985; Igwenagu Okoli, IHT 202, Uwani Amokwe, 22 May 1985.

[21]W.I. Ofonagoro, Trade and Imperialism in Southern Nigeria, 1881-1929, (New York, 1979), p.34.

[22]E.U. Emeto, IHT 169, UMUko Nkwere, 21 Aug. 1985; Peter Akaose, IHT 172, Umunnachi Nkwere, 22 Aug. 1985.

[23]Dick Achonwa, IHT 21, Umuko Nkwere, 1 July 1984; Abraham Igbokwe, IHT 41, Umukabia, 1 Aug. 1984.

[24]Dick Achonwa, IHT 1, Umunnachi Nkwere, 21 Aug. 1982; Duru Onyechege, IHT1, Umuozu, IHT6, 4 Sept. 1982.

[25]Oji Omekwu, IHT 106, Umuasi, Agulu Umana, 7 Nov. 1984.

[26]Nnaji Omekwu, IHT 105, Umuasi Okwesi, Agulu Umana, 7 Nov. 1984.

[27]Odo Nwagbaji, IHT 60, Dimotue Aku, 5 Sept. 1984; Joseph Ozioko, IHT 45, Umukashi Nsukka, 7 Aug. 1984.

[28]Sylvester Okenkwo, IHT 175, Ndi Owere Mbano, 23 March 1985; Eze Justus Ugochukwu, IHT 23, Eshi's palace, Nkwere, 2 July 1984; Anele Uzochukwu, IHT 49, Umuko Nkwere, 11 Aug. 1984.

[29]Jason Kalu Otuekere, IHT 48, Umuduroji, Nkwere, 11 Aug. 1984; Oji Omekwu, IHT 106.

[30]Oriji, "Transformations in traditional Ngwa society", Ikenga, 1,2(1980), 27-36; Dike, Trade and Politics, pp. 155-59; A.J.H. Latham, Old Calabar, pp. 34-41; 75-79.

[31]This was an indigenous script and sign language used mainly by members of the Ekpe society. Reverend J.K. MacGregor, "Some notes on Nsibidi", Journal of the Royal Anthropological Institute of Great Britain and Ireland,

39(1909), 209.

[32]Baikie, Narrative, p.69.

[33]Talbot, Tribes of the Niger Delta, (London, 1930), p.277.

[34]Anon, "Awka -- town of smiths", Nigeria Magazine, 61(1959), 136-156; 309.

[35]Basden, Niger Ibos, p.192.

[36]Akunne Ifeanyi, IHT 154, Agulu Awka, 16 Feb. 1985; Nwakasi Chideze Ozo, IHT 138, Umuogbu Awka, 2 Feb. 1985. Compare with Neaher, "Awka who travel: itinerant metalsmiths of southern Nigeria", Africa, 49, 4(1979), 352-366; Okafor, "The Awka smiths in history", 15-16.

[37]Odum Onyekwe, IHT 54, Onusa Nkwere, 26 Feb. 1984; Igbokwe Asiegbu, IHT 170, Amaegbu Nkwere, 22 March 1985.

[38]Some traditions claim that the zoning system was done by Agulu Nnebuzo himself: but this is improbable, given that during his time smithing was still in its infancy in Awka.

[39]Basden, Among the Ibos, p.176.

[40]Panama Ifejika, IHT 14, Amikwo, 21 May 1983; Nwuocha Odiuche, IHT 128, Umuanaga Awka, 24 Jan. 1985.

[41]Reverends T. Dennis and Smith, "Experiences on an itineration", Niger and Yoruba Notes, CXVI, X(1904), 59.

[42]T.J. Dennis, "A week's itineration in the Ibo country", Church Missionary Intelligencer, Sept. 1899, 778-81.

[43]Basden, Among the Ibos, pp. 171-2.

[44]Anon., "Awka -- town of smiths", 136.

[45]Afigbo, Ropes of Sand, p. 175.

[46]Leonard, "Note of a journey to Bende".

[47]Leonard, The Lower Niger and Its Tribes, (London, 1968 imp.), p. 406.

[48]Jones, The Trading States, p. 15.

[49]Dike, Trade and Politics, pp.14,18,25,171 for the

importance of the Niger River.

[50]D. Ikwunne, IHT 153, Umuogbu Awka, 15 Feb. 1985; Nweke Obu, IHT 140, Umuogbu Awka, 27 Jan. 1985.

[51]Nwakasi Chideze Ozo, IHT 138.

[52]Neaher, "Igbo metalsmiths among the southern Edo", African Arts, 9,3(1976), 46-49.

[53]George Nwonu, IHT 146, Umuokpu Awka, 6 Feb. 1985; Nwachukwu Nwanyanya, IHT 15, Umubele Awka, 21 May 1983.

[54]Panama Nwangu, IHT 14, Amikwo Awka, 21 May 1983; Isichei, Igbo Worlds, pp. 106-107.

[55]Nwakasi Ozo, IHT 138; Umuogbu Awka, Abraham Igbokwe, IHT 41, Umukabia.

[56]Nwakasi Ozo, IHT 138.

[57]Nwokoye Nnoyelu, IHT 147; Sargent, "Politics and economics", p.154.

[58]Ibid.

[59]Neaher, "Awka who travel".

[60]J.S. Boston, "Ceremonial gongs among the Igbo and the Igala", Man, LXV, 52(1964), 46.

[61]Oguagha, "Igbo - Igala relations", 256.

[62]Paul and Laura Bohannan, Tiv Economy, (Evanston, 1968), p. 183.

[63]Neaher, "Igbo metalsmiths among the southern Edo", 47.

[64]Awka traders and medicinemen had been visiting the Udi and Nsukka iron producing centres before the technology came to Awka.

[65]For Agbala oracle, see Talbot, The Peoples of Southern Nigeria, I, pp.52-53; Meek, Law and Authority, p.18; Basden, Niger Ibos, pp. 77-79.

[66]S. Ottenburg, "Ibo oracles and intergroup relations", Southwestern Journal of Anthropology, 14,3(1958), 295-317.

[67]Ibid.; Ukwu, "Development of trade and marketing".

[68]Basden, Niger Ibos, pp. 77-79.

[69]Lazarus Osuagwu, IHT 171, Amaegbu Nkwere, 22 Feb. 1985; Alloysius Onyejiaka, IHT 302, Enugu/Nkwere, 8 July 1985.

[70]Dennis, "A week's itineration".

[71]Ibid.

[72]Uchendu, The Igbo of Southeast Nigeria, pp. 81-82.

[73]Equiano, Narratives, pp. 1-2; Ifemesia, Traditional Humane Living, pp. 28-29.

[74]Holbrook, "An Easter itineration in the Ibo country, River Niger", West Equatorial Africa Diocesean Magazine, XI, 122 (1902), pp. 28-32.

[75]Lazarus Osuagwu, IHT 171, Nkwere.

[76]Aneke Nwigbo, IHT 111, Agulu Umana, 27 Nov. 1984.

[77]Meek, Law and Authority, pp. 74-75.

[78]Neaher, "Igbo metalsmiths", 47; Ekejiuba, "Aro system of trade", I, I, p. 12.

[79]Ibid., pp. 140,153; Jeffreys, "The Oreri mask", 140-142.

[80]Alloy Onyejiaka, IHT 199, Umuko Nkwere, 22 May 1985; Dick Achonwu, IHT 165, Umuokwaraoji Nkwere, 2 March 1985.

[81]M.N. Uzomaka, "Trade and politics in precolonial Nkwere", Special Project in History, Nsukka, 1978, p.vi.

[82]Aneke Nwigbo, IHT 111, Agulu Umana, 27 Nov. 1984.

[83]Okezie I. Idika, IHT 16, Okon Aku, Ohafia, 7 June 1983.

[84]Daniel Anebunwa, IHT 168, Durumba Umuko, Nkwere, 12 March 1985; Onyejiaka, "Origin and development", 20-26.

[85]Ofonagoro, Trade and Imperialism, p.45.

[86]Ebenechi, IHT 56, Agulu Amokwe, 7 Aug. 1984; Aneke Nwigbo, IHT 111.

[87]Oji Omekwu, IHT 106, Umuasi Okwesi, Agulu Umana, 7 Nov. 1984.

[88]Kanu Chinegbu, IHT 110, Agulu Umana, 27 Nov. 1984; Nnaji Omekwu, IHT 96, Umuasi Okwesi, 7 Nov. 1984.

[89]Oji Omekwu, IHT 121, Umasi Okwesi, Agulu Umana, 10 Jan. 1985; Umazi Okwesi, IHT 98, Obeleagu Umana, 5 Nov. 1984.

[90]Thomas, Anthropological Report, pt. 1, p.13.

[91]Hope M. Waddell, Twenty-Nine years in the West Indies and Central Africa, (London, 1863), pp.326-27, 514; C. Patridge, Cross River Natives, (London, 1905), pp. 186-187.

[92]Northrup, Trade Without Rulers, pp. 78-79.

[93]Kalu Uche, IHT 212, Amogugu Abiriba, 27 June 1984.

[94]For a general account, see, Ogbonna O. Ekeghe, A Short History of Abiriba, (Aba, n.d.).

[95]Leonard, "Notes of a journey", 196-197.

[96]Ekejiuba, "The Aro system of trade", 11-26; Ukwu, "Development, trade and marketing", 647-662.

[97]Igwe O.C. Manu, IHT 69, Elu Ocha, Aku, 7 Sept. 1984; Ude Nwuma, IHT 8, Amogu Ujata, Aku, 21 Nov. 1982.

[98]Ohagwu Ayoghu, IHT 114, Amube Ezike, 21 Dec. 1984.

[99]Eke Kalu, "An Ibo autobiography", The Nigerian Field, 7,4(1938), 158-170.

[100]Northrup, Trade Without Rulers, p. 116.

[101]P.O. Nsugbe, Ohaffia: A Matrilineal Ibo Society, (London, 1972).

[102]Afigbo, (i), "Trade and trade routes", pp.77-90; (ii), "Precolonial trade links", pp.119-139; P.E. Lovejoy, "The Borno salt industry", IJAHS, 9, 4(1978), 629-668.

[103]Talbot, The Peoples, Volume 3, pp.776-78; Afigbo, "Trade and trade routes".

[104]Eze Alphonsus, IHT 166, Umuagu Onusa, 30 Feb. 1985; Frederick Anyiam, IHT 161, Umuanaga, Nkwere, 25 Feb. 1985; Uzomaka, "Trade and politics", p.iv.

[105]Isichei, A History of Nigeria, pp. 230-32.

[106]Uzomaka, "Trade and politics", p.17; Northrup, Trade Without Rulers, p.104.

[107]Osuagwu, "Traditional manufactures", pp. 11-25; J.U. Asiegbu, "Traditional African societies and indigenous technology -- a case study of Umuahia", unpublished paper, 1985.

[108]Jones, "Native trade and currencies", pp. 43-53; O. O. Amogu, "The introduction into and withdrawal of manillas from the Oil Rivers as seen in Ndoki District", Nigeria Magazine, 38(1952), 135-139.

[109]Afigbo, "Trade and trade routes", 81-82; Isichei, A History of the Igbo People, p.47.

[110]Oji Omekwu, IHT 106, Umuasi Okwesi, 7 Nov. 1984

[111]For the role of the Aro in the enforcement of peace, refer to Dike, Trade and Politics, pp. 39-51; Dike and Ekejiuba, "The Aro state".

[112]Abel Abu, IHT 207; Oguagha, "Igbo - Igala relations", 126.

[113]Dike, Trade and Politics, p. 39; Afigbo, "The eclipse of the Aro slaving oligarchy of southeastern Nigeria, 1901-1927", JHSN, 6,1(1971), 3-24.

[114]R.K. Umo, History of Aro Settlements, Yaba-Lagos, 1948, p.21.

[115]Dike, Trade and Politics, p.39.

[116]Njoku, "The salt industry of Ohaozara", Ikenga, 5,2(in press).

[117]Ekejiuba, "The Aro system of trade", 20.

[118]Odo Osigide, IHT 254, Eha Ndiagu, 27 June 1985; Alili Nweze, IHT 187, Umueguru Ibagwa, 19 May 1985.

[119]Kanu Chinegbu, IHT 110; Aneke Nwigbo, IHT 111.

[120]Omekwu Oji, IHT 106.

[121]Okafor, IHT 164, Amikwo Awka, 2 March 1985; Dike Umunna, IHT 153, Umuogbu Awka; Dike, The Resilience of

Igbo Culture, pp. 25-37.

[122]Dennis and Smith, "Experiences on an itinertion", p. 59.

[123]Nwakasi Chideze Ozo, IHT 138, Umuogbu Awka; Okeke Ifeachor, IHT 156, Umuike Awka, 19 Feb. 1985.

[124]Uchendu, The Igbo of Southeast Nigeria, pp. 82-87; Green, Igbo Village Affairs; Meek, Law and Authority, pp. 111-113.

[125]Uchendu, The Igbo, pp. 82-92; Ifemesia, Traditional Humane Living, pp. 55-81.

[126]Lucy Mair, "The growth of economic individualism in African society", Journal of African Society, XXXIII, CXXX (1934), 261-273.

# CHAPTER FIVE

## EMERGENCE OF THE SMITH OLIGARCHY

In concluding this work, it seems appropriate to place in perspective the role of iron workers in the economic, social and political development of precolonial Igboland. The traditional economy of Igboland was based on agriculture, craft production and trade. Agriculture is usually considered the most important, farming having been described as "the Igbo staff of life".[1] In response, M.M. Green ranks trade as a close second, and to some people even "the breath of life, particularly the women".[2]

The obvious inference from this is that craft production occupied the lowest rung in the schema. In fact, Nina Mba argues that craft occupations were poorly developed in precolonial Igboland.[3] Also, the traditional Igbo society is usually portrayed as ultra egalitarian. The communities are described as intensely autonomous village democracies, and it is said that the relevant social environment was restricted to the village.[4]

The discussion below disagrees with these stereotypes, and suggests the following revisions. First, along with specific reference to iron production, the place of craft production in precolonial Igboland has been grossly under-rated; iron production formed the technological foundation of precolonial Igbo society.

Second, the notion of utopian egalitarianism is the ideal, but has little relevance to reality. The smiths developed as an elite within villages and between villages. They even developed a material base not strictly dependent on the land. Third, contrary to assumptions of absolute village autonomy, smiths created a network of elite contacts between villages. These contacts affected inter-village relations, and formed the basis for important economic, political and social linkages.

## I. Development of Smith Elite

### (a) Control over Manufacture and Trade

It is hardly a matter for debate that from three considerations, agricultural was a very important industry in precolonial Igboland. First, except for a very few communities, it was the predominant occupation of the people, including children, as Equiano remarked.[5] Second, an agricultural surplus provided the leverage for people to enter into other occupations. Third, agricultural produce accounted for the lion's share of the domestic trade. Also, the ubiquity of markets in Igboland, linked together by an intricate grid of routes seems an eloquent testimony that trade was an important economic activity.

It has become commonplace to dub the manufacturing sector as non-existent in precolonial Africa, or at best

to have played nothing more than an inconsequential role. However, attempts to rank the various economic activities in an assumed order of importance are misleading. This obscures a fundamental feature of the entire economy, the symbiotic relationship between the sectors. The health of one was bound to affect the others. While agriculture and trade were pervasive in precolonial Igboland, craft production was restricted, and this may help to explain its low rating. In reality, the restricted nature of craft production gave it much greater significance than textbook generalisations tend to recognise.

There are grounds to argue that iron technology played a more important role in precolonial Igbo society than is generally appreciated. It is a universal truism that the discovery of agriculture was one of the most important landmarks in human history. An assured food supply resulted in a settled life and a 'population explosion'. However, the neolithic cultivator, using only stone, wood and bone implements must have made only a marginal impression on the primordial rain forest of the Igbo area, as "the difficulty of clearing humid and dense vegetation with fire must have discouraged agricultural settlements".[6]

Owing to technological constraints, a 'population explosion' probably never occurred in the forest zone

until the inception of iron implements which could cope with the environment. Of the neolithic period in Africa, J.D. Clark observed that it was "not until the population explosion that ... any fundamental change in the economy was feasible. What made this possible, even then, was the development of iron working ...".[7] The inception of iron technology in sub-Saharan Africa has thus been described by Shaw, and Akin Mabogunje as "a big event of great importance"[8] which was "crucial for the spread of agriculture in Negro Africa".[9]

The cruciality of this event in Igbo agriculture and its effect on the people's ability to cope with their environment is mirrored in the Umueri legend, discussed earlier, in which Chukwu sent a smith to dry up the morass. As Ekejiuba states, "the flowering of internal commerce ... was stimulated by the spread of agricultural implements",[10] and consequent increase in food production. For their tools -- hoes, matchets, diggers and axes -- Igbo farmers depended entirely upon the iron workers, at least until European imports began to supplement local production. Without the iron implements, agriculture might have stagnated in a vicious circle of subsistence production.[11] The high population density of Igboland, believed to have relied on its "mature iron culture", might never have occurred. The smiths controlled a vital

resource.

Farmers, needless to say, were not the only group which depended upon the smiths for their tools. Construction workers such as boat builders and carvers needed tools such as chisels (okpú otu), adzes (anyu ike) and scrapers (nko). House builders needed door hinges and staples, nails and bolts. Hunters depended upon them for arrowheads, spears, hunting bells, traps and guns. For the riverain people, the smiths produced, in addition to tools for building dug out canoes, fishing gear such as hooks, traps, and spears. Households required domestic utensils such as kitchen knives (mma eku), forks (ngaji) and tripods (osi ite).

While some of the smiths' products served utilitarian purposes, others were designed to achieve goals that were essentially social and cultural. These included articles of personal beauty, ritual and social significance. Those men and women who could afford it seem to have had a great flair for personal ornamentation. Equiano recalled in the 1740s that women of high estate wore what he described as "golden ornaments which they dispose with some profusion on their arms and legs".[12] In the late eighteenth and the nineteenth centuries, women's and men's brass anklets -- ona ada ana and ond ogbuefi -- were the popular products of Awka smiths for Aguleri, Anam, Igboariam, Umuleri and

Ibaji socialites.

It may be recalled that in his journey to Bende in 1896, Major Leonard had remarked upon the popularity of Abiriba-made brass and iron ornaments among the young men and women in all the communities his party traversed. Other observers, such as Dodds, Basden, Jones and Talbot, also reported on the ubiquity of ornamental dressing in other Igbo and non-Igbo areas in southeastern Nigeria.[13] The popular articles of adornment were leglets, wristlets, rings and pendants. These were made either with brass, bronze or with iron, depending upon the pecuniary capability of the consumer.

These items served not just as personal adornment per se; they were at the same time an expression of affluence. Some, notably those made with iron, were relatively inexpensive and within the reach of most consumers. Those made with bronze and brass, were not. In c.1905, for instance, a pair of brass anklets, then in decline as an article of fashion, cost fifteen shillings.[14] This was an enormous expenditure, well beyond the means of all but a tiny fraction of the population. Bronze articles cost a lot more. The high cost of bronze articles derived from the time and skill required to produce them by the lost wax method, their aesthetic appeal and their extreme rarity.[15]

Certain items were associated with specific roles and statuses in society. In the Ngwa and Nsukka areas, the spear (arua) was a symbol of the authority of the village head. Among the Cross River Igbo, the giant rattle gong (imomo) symbolised the authority of the local ruler. Priests of deities had specially made gongs and spears as parts of their regalia. For physician/diviners, the smiths made agwara from copper wires for making talismen and eka for the treatment of ogbanje, a type of schizophrenic disorder. Ozo title holders (ndi nze) had, as a part of their regalia, specially designed bronze bells and staffs. Servants on errands for their masters often carried an article of their masters' regalia to indicate their authority. Since the society depended upon the smiths for these emblematic as well as the utilitarian articles, it was only logical that they were treated with respect for their uncommon skill.

The general awareness of the indispensability of the industry to the various facets of the economic and social well-being of the community was manifested in many ways, overt and subtle. These included songs, idioms, proverbs, praise names and cultural practices. Oheke or ofeke, meaning "a ne'er do well" was the term used to describe any person who was not an iron worker. In some parts of Nsukka, during the harvest season farmers made customary

donations of farm produce to smiths in recognition of their invaluable contribution to society.[16] Also in deference to their special skill, smiths were exempted from public works. The smiths' position is further enshrined in a number of popular adages and idioms. For instance, an Awka proverb says agulu anoro igbo ataa aja, "if there were no smiths, the Igbo race would have had to eat sand".[17] A proverb of Umugwu Ekwom asks, "Why pretend to bluff a smith when you are bound to come back to him?".[18] The Nkwere assert, perhaps with justification, that in the past there was hardly any Igbo community that did not host them. The smiths themselves considered it infra dig to do 'menial' jobs. They did not climb the oil palm to harvest the fruits. Farming was left almost entirely to oheke in many places, for example, Amube Eguru, Awka and Nkwere.

The smiths' neglect of agriculture and consequent lack of interest in land acquisition had an untoward result, especially since the colonial period. Practically all the major smithing communities are among the most land-starved today.[19] Colonial rule introduced a new economic and socio-political regime which marginalized traditional iron working. In some instances, notably Abiriba, the smiths were quick to switch over to trading. In some, the transition was painfully slow. But whether

or not the different communities were able to make the transition successfully, land shortage remains one of their insoluble problems.

In respect of trade, the smiths were important activators. The origins of trade and markets in Igboland, as indeed West Africa, however, remains an unresolved controversy. It is, however, generally thought that smiths were among the earliest specialists to emerge in West Africa and that "the most important regional networks were those dealing with iron products".[20] The explanation for this lies in the fact that iron working was highly skilled and limited to a few specialists, while the demand for the products was widespread.

The need to reach the dispersed market involved the smiths in long distance travels and trade. The primary function of trade is to bring demand and supply together. The peripatetic nature of their profession enabled the smiths to perform this function well, conveying goods from areas of plenty to those of scarcity. To this end, the smiths were crucial factors in economic and occupational diversification, a move away from subsistence and self-sufficiency to interdependence.

Long distance trade in precolonial Igboland has been discussed primarily in the context of the Aro trade organisation.[21] But more recent studies indicate that the

trading system of southeastern Nigeria was more complex and varied.[22] Many communities were involved in it to a much greater extent than orthodox literature may suggest. The Aro trade itself was deeply involved in the distribution of metal goods, and the direction of Aro commercial expansion seems to have aimed at "regions of specialisation of craft products".[23] The Aro had special trade agreements with Nkwere and Abiriba smiths. They supplied the smiths imported iron while the smiths sold them iron products.

It was a reflection of the extent of the involvement of Aro traders in iron distribution that misled Baikie in 1854 to think they were "skillful artisans, and manufacture swords, spears and metallic ornaments".[24] Early foreign missionaries who established a station at Uzuakoli commented on the Aro factor in the iron trade. Aro traders, as Reverend Dodds observed, came to the Uzuakoli market,

> in companies of a hundred of (sic) more on the evening before every market day. Mostly they carried head loads of iron bars, for sale to blacksmiths, of whom at least one could be found in every Ibo village. Their loads were terribly heavy. I have sometimes lifted one, and have it to weigh well over a hundred pounds.[25]

The smiths' activities in manufacture and trade had other spin-offs in the form of support services. Dwindling wood resources made the iron workers employ paid

labour in charcoal production. Itinerant smiths undertaking long distance tours usually employed guards and professional carriers. Rest houses and road side food sellers emerged at strategic road junctions and resting places along the important routes such as the Uzuakoli - Bende - Uburu/Okposi; the Nsukka - Nike - Uburu/Okposi and the Awka - Ogidi - Onitsha routes.

Traditions recorded at Abiriba, Awka, Udi and Nkwere suggest that itinerant smiths were sometimes responsible for the emergence of market places where none had existed.[26] This seems to have happened in some communities in the Cross River, Ikom and delta districts. Generally, the forge attracted public attention and, people frequented it in part for business and in part to watch the mystery of turning iron into tools. In time, the smiths's premises provided an informal but convenient avenue for disseminating news and exchanging commodities. Gradually, a formal market place emerged, usually located near the smithy.

The domestic trade of southeastern Nigeria was conducted partly by barter and partly by the use of various forms of trade currencies or units of account such as cowries, manillas, iron bars and copper rods and salt. Some of these, such as iron bars and copper rods, were introduced by the European traders. Some were indigenous

and predated European arrival. Omumu, for instance, was an indigenous currency produced possibly by Umuaga, Udi smiths.[27] Equiano stated that "some small pieces of coin ... made something like an anchor"[28] were used as a trade currency in his home district. Udi traditions recall a locally produced iron currency called anyu or ayu shaped thus:[29] This might be the anchor-like currency Equiano talked about. The iron bar and copper rods were often of too high value for most of the domestic transactions. The smiths facilitated and extended their use by cutting them up into units of smaller denominations.

For reasons indicated earlier, smiths were, on balance, an affluent group in precolonial Igbo society. Earlier, we noted the instance of Ogugua of Nkwere who owned over a hundred guns which he rented out to hunters in Ogoni. We also cited the case of an Awka smith who was paid about 1.12.6 d. in less than a week for a job he did for Reverend Taylor.[30] In Abiriba and Nkwere, smiths acted as money lenders to individuals and to the community as a body. The family of Igboko Kalu, c.1858-1888, reputedly one of the best smiths in Abiriba, was among the most affluent. Memories of the family still echo in the praise-name of one of the sons, Kalu Igboko. He is fondly called afu nwa arisa nma: "the son whose presence brings back memories of his father".[31]

E. Warner, one of the earliest Europeans to visit Awka, reported that some of the people "did not wish to learn anything else as they had learned blacksmithing and that was quite enough for them".[32] In her report, 1899, Warner indicated that Awka was generally a wealthier community than its neighbours and that the people were "too proud to carry burdens (sic), so they hire the inhabitants of one village to carry for them".[33] Mrs. Dennis, who visited Awka the same year as Miss Warner, observed that Awka men

> all carried themselves with a dignified air, or perhaps, a swagger, as though all the world belonged to them.[34]

The pride of the people and their unwillingness to contemplate other occupations than smithing certainly arose from the lucrative nature of the profession and the dignity attached to it. However, as colonial rule unfolded and smithing became progressively less significant, this attitude was bound to change.

In the precolonial times, therefore, the smiths were prime movers of the economy. Craft specialisation led to the development of internal trade and village markets for the exchange of craft and agricultural products, which in turn made the individual economically dependent upon the society as a whole. This had a wider social implications: interaction through trade and interrelation through

interdependence was crucial in forging social integration.

(b) Institutionalisation of Elitism

Inequality in wealth had wide ramifications for society in terms of social and political power. It is human propensity to transform economic power into political and social leverage. Azuka Dike has analysed the close relationship between wealth and sociopolitical power in Awka in precolonial times.[35] Nkwere oral traditions provide a more stimulating example of the process by which economic power was converted to political and social privilege. The discussion which follows focuses on the Nkwere example, but its wider applicability is not in doubt.

Status can be acquired either through ascription or achievement. In Igboland, status was achieved. The basis of social and political power and status is ultimately related to access to resources, both tangible and intangible. Intangible resources include knowledge and skill, while tangible resources include material possessions and organisational membership. The possession of one or both of these categories provides the potential for exercising power. The extent of power which an individual or group can exercise is invariably influenced by the degree to which

other members of the society are dependent upon the resources and the strength of opposition encountered in the exercise of power.

Like other Igbo communities, Nkwere was an open, competitive society. The sociopolitical arrangement was gerontocratic in so far as age attracted considerable respect, and leadership came from the elders. But, as Webster and others observe, respect did not amount to servility.[36] All free born citizens were believed to be born equal. They had, and exercised, the right to take part in the political and judicial processes in the community. As an Igbo adage goes, "if a young man washes his hands clean enough, he should be permitted to dine with this elders". The Nkwere were pragmatic enough to recognise that though people might be born equal, they lived and died unequal.

According to their tradition, in their remembered history, individuals or groups have always sought to carve out for themselves a position of social and political eminence in the Nkwere society. If successful, such groups were usually accepted, either by overt public endorsement or tacit acquiescence as opinion moulders, if not de facto rulers. The Nkwere political arrangement, therefore, mirrored the duality of Igbo political philosophy which accommodated the coexistence of democracy

and aristocracy.[37]

Generally, high social and political status was achieved through one or a combination of three criteria -- an outstanding military or heroic service to the community, the possession of sharp intelligence combined with persuasive oratory, and the achievement of material wealth. These categories of citizens formed a small but influential elite in the society. But they were not of equal weight.

The man of military prowess enjoyed popular respect in the community, particularly in times of external threat when his service became critical. But when normalcy returned and the memories of the threat were gradually dulled by years of tranquility, the prestige of this category of leaders paled correspondingly. In the matter of war, the smiths occupied a central place, not as combatants but as producers of arms -- matchets, spears, arrowheads, swords and guns. Smiths were generally a peace-loving people. Nevertheless, in times of inter-communal wars, they were avidly courted by the feuding parties for the supply of arms.

Their support or lack of it to one of two warring groups to a large extent determined the outcome of the conflict. Examples of the role of smiths in deciding the outcome of wars abound in oral traditions. In a war

between Obibi and Nekede, c.1888-1890, the latter was worsted because the Obibi people had the services of Nkwere smiths who produced and repaired weapons for them.[38] In another conflict between Azigbo and Igbo-ukwu in the late nineteenth century, the latter, who were supplied arms by Nkwere smiths, emerged victorious.[39]

The intelligent and persuasive speaker was respected for his ability to put forward proposals that met popular approval. He was, however, handicapped, if at the same time, he was not an affluent person. For it meant that he was unable to match his ideas with action. Such a person was acutely haunted by and conscious of the proverb which warns the indigent: "any person born in Nkwere and is destined to be poor had better die and reincarnate".[40]

On the other hand, the man who had achieved material wealth enjoyed lasting respect, even admiration. He could match his word with action. He had many wives, raised a large, boisterous family, fed many mouths, gave out substantial patronage (which attracted reciprocal clientele) and contributed more in men and material for the defence of the community. Such a man was acknowledged as aka ji aku, "the hand that commands and exudes wealth". Often the aka ji aku was also the onu n'ekwuru oha, "the mouth that spoke for the community".[41]

The respect that accrued to the aka ji aku had a more

philosophical foundation than mere mundane considerations. Material wealth was believed to imply spiritual salvation, and poverty damnation. Wealth enhanced and ennobled life while poverty exposed the afflicted to various temptations and indignities. Hence, the Nkwere proverb which states that ama so ariri anaghi eji uqwo, "a lineage that loathes indignity does not incur debt".[42]

The acquisition of material wealth was deemed to demand such sterling qualities as shrewdness, drive and intelligence. It also implied that the successful man was living an upright life and consequently had equilibrated his relationship with the deities. These deities who bestowed wealth were fastidious and exacted a very stiff moral standard from the recipients.[43] It was inconceivable that a man of moral turpitude could ever become wealthy. Eze Justus Ugochukwu observed as follows:

> You couldn't become a wealthy man in those good old days unless you combined hard work with [good] character. It was not like these days when even rogues and murderers become rich over night. Alaukwu Nkwere would not permit it.[44]

In precolonial Igbo society, a man proclaimed his arrival in his community by joining the important title societies. Titles were generally purchased, not conferred as an honour by the community. They were the surest way for the citizen to stand outside the crowd. Basden observed, though with a touch of exaggeration,

> Pride is one of the outstanding traits of Ibos; ... there are obvious signs of superiority complex ... expressed by men in striving for titular rank, and their arrogance once they have attained to it.[45]

It seems that prior to c.1756-1786, the most prestigious and influential group in Nkwere was the di ji or eze ji, a society of celebrated farmers.[46] To become a member was the passion of every Nkwere citizen. But only very few citizens were able to achieve this goal, the reason being the expenditure in yams, money, goats and fowl which an entrant had to make. The very few who were able to make it constituted the leading élite in the society and exercised a powerful influence out of proportion to their number.

By the mid-eighteenth century, the di ji society was being rivalled by the ozo title society. By the opening of the nineteenth century, ozo had replaced di ji as the most prestigious and powerful in Nkwere. Ozo had been introduced into Nkwere in the first half of the eighteenth century by itinerant Nkwere smiths who worked in the Onitsha area. As it had been the case with the di ji society during its hey day, to join the ozo society became the life ambition of every Nkwere citizen who had any social and political ambition in the community.

As in other communities where it existed, ozo was graded in Nkwere, starting from emume, the lowest rank,

through ichi, ọmumu to ozo.[47] An aspirant had to proceed slowly from the lowest rank, step by step, to the highest. This was an expensive undertaking, the expense increasing in the ascending order of the ranks. It is estimated that in c.1886-1900, an entrant to the lowest rank paid to the society about ten goats, thirty to forty fowl and 100,000 to 100,500 cowries (approximately 10 to 10 1/-), as well as large quantities of yams and drinks. Ozo, the highest rank, cost about fifty goats, over a hundred fowl, about twenty five pounds, and yams and drinks.[48] Basden observed that in the Onitsha - Awka area, the highest rank cost over a hundred pounds in cash around the same period.[49]

The ozo title system had a touch of personal insurance. Not only did the old members share the fees of new entrants among themselves, each new aspirant paid every member of the society in his lineage a homage fee ranging from five shillings to as much as three pounds. The intiation process involved floating lavish entertainment parties stretching for several days. To these expenses was added the cost of title regalia such as bells, an ivory trumpet, a ceremonial staff and an ozo stool.[50] Such was the display of affluence involved, in the end, only a tiny fraction of the population could become members, and still a tinier fraction could make it

to the top in their lifetime.

Those who did became de facto rulers of the community, and enjoyed privileges well beyond the dreams of the ordinary citizens. The titled man was immune from bodily assault and exempted from communal labour. He was assigned a leading role at social functions and broke the kola nut before it was shared out. The titled man's house was something of an asylum for the fugitive which provided him/her an opportunity for a fair trial if he/she was sought to face justice for an alleged wrong. The wife of the titled man was treated with special respect. Offences against her were treated with great severity.[51]

If ozo attracted privileges and respect to the holder, it also imposed corresponding responsibilities.[52] The title holder was expected to live an exemplary life. He must tell the truth at all times and in any circumstance. Consequently, in controversial issues, his testimony carried a lot of weight. Hence, very difficult cases within and outside his family or kindred were often brought to him for settlement. In all offences, the title holder was more severely punished than the ordinary citizen. Members of the society were always on the watch to see that discipline prevailed and the good name of their order was upheld. In extreme circumstances, an offending member could be expelled from the order. It was

only by setting good examples that the credibility of the title holders as leaders of the community was established and accepted. Thus, as Margery Perham put it, ozo was "one of the many examples that could be given of the remarkable plasticity of Ibo institutions ... The Ibo were never bound by mere forms to incompetent leadership".53

For obvious reasons, ozo was dominated by the smiths in Nkwere. They had the resources to acquire the highest grade of the society. Most other groups were less fortunate. For instance, as Basden observed, "for those practising .... agriculture, the saving of money is a harder task".54 As ozo waxed stronger, so did the di ji society become more unattractive and unfashionable in the socio-political calculations of the community.

Certainly smiths were not the only group who held the ozo title. Some professional traders did, for instance. However, in a special sort of way, the smiths who were nze attracted unique respect. Apart from the central importance of their profession and the belief that their skill involved some mystical powers, the smiths travelled more extensively than any other group in the community and had wide ranging contacts with foreigners. In the process, they acquired wider knowledge of the world than the rest of the community. As the saying went, a travelled young man was wiser than a grey-haired man with

homely wisdom only. During the British invasion of Nkwere in 1906, it was "Nkwere sons abroad",[55] who, having observed the superior military technology of the invaders elsewhere, advised their people against resistance. The advice saved Nkwere from the potentially disastrous consequences of such a confrontation.

(c) Inter-Group Ties

The smiths were a vital vehicle in forging healthy inter-group relations between Nkwere and other communities. This can be inferred from the analysis of the smiths' itineration in the previous chapter. Most often, titled smiths widened thier power base by marrying from, and giving their daughters in marriage to influential families in the strategic towns in their areas of business. In this way, they established marital-business relationships which transcended the narrow world of their own community. Walter I. Ofonagoro shows that such marital-business relationships in the nineteenth century included, among other places, Bende, Uzuakoli, Ngwa, Asumiri, Opobo, Ogoni, Ikwere, Ogwashi-ukwu, Oguta and Igala.[57]

Supported by such a wide network, titled smiths became pivotal in effecting detente between their community and others. What is more, ozo enjoyed near pan-Igbo recognition and reputation, and elements of esprit de

corps were bound to operate among the members, as Daryll Forde and G.I. Jones observed in the Isu clan to which Nkwere belongs.[58] In the Igbo society, where each community enjoyed considerable autonomy and tended to be vertically integrated, an institution like ozo facilitated inter-group relationships and minimised conflicts.

Finally, the smiths played the role of culture innovators, by importing exotic cultures from their travels. The smiths from Umuko kindred are reputed to have introduced okorosha, a cultural dance borrowed from Ebum Otaa in Orsu area. From Ogoni, Umuanachi brought in akalikpo, an acrobatic dance. Amaegbu imported ikpirikpa, a war dance, from the Ohafia-Uzuakoli area, while Umunyem brought in nwaokwa, a cultural ceremony from Obowu.[59] These cultural exchanges presumably helped to further cement relations between the communities involved.

Among the new elite which emerged in Nkwere, the traditions speak eloquently of Ejiojo Nwike, a man of extraordinary talents. A wealthy smith/trader and a high ranking nze, he was reputed to match his wealth with unusual intelligence and oratory. Nwike was a member of the Nkwere council of rulers which was traditionally headed by the Okwaraeshi, the most senior of the direct descendants of Eshi, the ancestral father of the Nkwere people. However, by c.1866-96, Nwike had become the de

facto leader of the council.[60] When the colonial troops came to Nkwere in 1906, it was he who came forward and received them after other notables in the community had gone into hiding. So pervasive was his influence in Nkwere, the colonial government appointed him the first Warrant Chief of the Nkwere-Orlu clan, notwithstanding, it is said, his initial intrigues against the colonial administration.[61]

The realignment of the status quo ante which became so manifest in the nineteenth century has been preserved in the people's legend. Eshi once upon a time called together his sons and grandsons in order to endow each of them with a special gift. Before them he placed a cow (ehi), a yam (ji), an oil palm (nkwu) and a path (uzo). Each of them was asked to choose whichever one of the items he preferred. Except Nkwere, each of the sons, opted for one of the agro-allied items. When it was Nkwere's turn, he chose the path, to the surprise and even ridicule of the other sons, and to the consternation of his mother. For some time, the other sons prospered.

But in the long run, Nkwere's choice turned out to be the genesis of the Nkwere people's wealth and fame. Nkwere took to the path profession, smithing and long distance trading. This profession brought him economic power and knowledge borne out of distant travels and wide

contacts. Subsequently, he went on to overshadow his brothers. This is why, the story goes, a proverb advises youth: eliwe ehi liwe uzo, onye ma ihe were uzo, ya hapu ehi. This is to say, 'given to choose between a cow and a path, the sensible person chooses the path and leaves the cow".62

It seems probable that the phenomenon referred to by this tradition was not an event but a process that might have taken a long time to manifest itself. The tradition seeks to explain a development in the Nkwere socio-economic and political evolution whereby farmers started off as the prominent group in the society but were later overtaken by non-agricultural producers, or traders.

In nineteenth century Igboland, it seems probable that the smiths were a very powerful force and a catalyst for change which was disrupted by colonialism. In fact, some Igbo historians have identified the rise of 'new men' as a recurrent theme in the nineteenth century. It resulted in undermining age-long authority.63 This development casts in bold relief the erroneous notion that the precolonial society was static and that rigid institutional mechanisms existed to ensure the perpetuation of primordial traditions.

The origin of the ikenga cult among the Igbo is unclear. From a symbolist's perspective, the ikenga cult

can be traced to the emergence of the 'new men', or the commercialisation of merit, which seems widespread in southern Nigeria in the nineteenth century. In the Igbo language, ikenga means 'the right hand'. As a cult, it was one of the most widespread in Igboland.[64] It was the god of success, ability and manliness; it was the first deity that a father made to his son about to start off in life. The Edo called it ikegobo.[65] The isolation of the right hand as an object of worship -- "iconography of the hand"[66] -- was probably intended to emphasise both the virtue of individual striving and excellence, and the respect accruing from success.

II. The Question of State

State formation has been a recurrent theme in precolonial African historiography.[67] In the Igbo case, popular literature portrays the political arrangement as "'stateless", "acephalous" and "segmentary". Certainly, the Igbo did not evolve a centralised political arrangement analogous to those of their Edo and Igala neighbours. In most parts, political organisations were structured around the village. The 'new men' of the nineteenth century do not appear to have developed political ambition that overtly transcended the village or clan. Yet it is thought that ingredients favourable to

the emergence of a centralised state, or states, existed: disparity in wealth at the personal and community levels, inequality of access to material and non-material resources, population concentration, and the juxtaposition of food surplus and food deficit areas.

The origin of states is a complex issue which seems to have defied political philosophers. Yet text book generalisations tend to make the process of state formation appear less difficult than it probably was. Some commentators tend to reduce the process to a function of economics.[68] Some assume that the emergence of a dominant elite naturally leads to the centralisation of political functions. Some point to the pressure of war and natural disasters such as drought.[69] The analysts miss the human factor, such as the attitude of a people to authority systems.

Recent research shows that Igbo political arrangements were more complex and less monolithic than generalisations in popular literature tend to assume.[70] The labels "stateless", "acephalous" and "village democracies" conceal a complex of configurations. Robert F. Stevenson has argued convincingly that those who dub the traditional Igbo society as stateless have been preoccupied with the "strictly formal definitions of the state".[71] The more relevant issue of function has been

neglected. Although there were no formal political arrangements in Igboland familiar to structuralists, various formations certainly existed which fulfilled the functions of a state.

A state must incorporate a territorial component and a specific population. It should have some instruments to enforce its authority over the population. Its primary functions may be said to include the maintenance of law and order and the promotion of the economic and social well being of its citizens through the encouragement of trade and industry. The mechanics of achieving these broad goals vary according to peoples' historical experience and social organisation as well as their general cosmology. The adoption of erther a formal or an informal state apparatus could serve the same end. It is for this reason that Dike and Ekejiuba have cautioned against the tendency to apply Western models and theories of the state in analysing the traditional Igbo system, or African systems, for that matter.

The Aro had a commercial state which sprawled over much of southeastern Nigeria. The state was maintained through oracular manipulation backed by a strong military force which was used, as the need arose, to enforce the Aro peace.[73] The Nri priests were agents of peace in much of northern and west-Niger Igboland. Their authority

base was ritual, not military. As Jones observed, it was believed in much of Igboland that the soul of every Igbo person at death must pass through the street of Nri on its way to join the ancestors.[74] It was a measure of the influence of the Nri people, as Northcote Thomas reported in 1913, that "when probably for the first time in history an Eze Nri entered the Native Court at Awka while a sitting was going on, the whole assembly rose and prepared to flee".[75] This incident happened in the colonial period when the power and influence of Eze Nri was a shadow of its precolonial vitality.

There is a common assumption that a formal state in precolonial Africa performed the functions of a state better than an informal one. Northrup, for instance, laments the absence of "a public force charged with and capable of safeguarding traders" in the hinterland of southeastern Nigeria. "This is in a very clear contrast", he continued, "to the situation in the more centralised societies of West Africa where ... traders and other travellers had been charged tolls on roads and markets from which in return they would expect the protection of public officers".[76]

This is not the place to review Trade Without Rulers, but Northrup is misleading in several ways. His line of thought follows the earlier stereotype that the

traditional Igbo systems of government were an "ordered anarchy".[77] It is yet to be proven that societies in West Africa with a formal centralised state system enjoyed greater security than those without. The high population density of precolonial Igboland is usually attributed in part, to the tranquility which it enjoyed for much of its history. Nor is it correct that a public force "simply did not exist".[78] As indicated above, both the Aro and the Nri had forms of a public force.

It cannot be assumed as a universal truth that a formal centralised state better performs the functions of a state. Sargent has demonstrated how the political enclaves at Benin and Idah impoverished their peripheries.[79] Social banditry has been shown to have featured prominently in some of the most centralised states in precolonial Africa.[80] It was observed earlier that royal control was probably responsible for stunting the growth of the initiative of metal workers in the Benin and Igala kingdoms. In contrast, the political arrangement in Igboland stimulated and encouraged competition, individual enterprise and initiative.

The notion that precolonial Igbo society had no capacity to carry out state functions may be laid to rest. The question remains why the smiths, in spite of their control of a scarce resource and a major instrument of

military power, formed no states, formal or informal. This is a question that does not admit of a simplistic and monocausal explanation. The answer to this requires a variety of considerations.

First, as stated earlier, the smiths were a peace loving people, who abhorred violence and bloodshed. This attitude enhanced their public image and helped to facilitate their movements from place to place, making them welcome wherever they went. State building might have involved them in some military confrontations and bloodshed, which would have gone against the grain of their basic philosophy and disposition.

Second, the smiths travelled extensively to as far as the Cameroons, Yorubaland, Idoma and beyond the Igala kingdom. Their relative freedom of movement derived partly from the usefulness of their skill and the general belief, which they propogated and dramatised, that they had mystical powers beyond the ken of the ordinary people. This situation served well their economic interest. And it is doubtful if a state system would have served this purpose better. A state would have meant organising a military force and a mechanism to police and administer the extensive area.

It seems plausible that, as long as the primary interest of the smiths was served by the existing

situation, they saw no need to be embroiled in state building. If a 'conflict conjunction'[81] had arisen which obstructed their movement and threatened their economic interest, it is possible that the smiths might have resorted to the use of arms to preserve their interest. Necessity might then have forced them to revise their phobia against violence and bloodshed.

Finally, although they controlled a scarce resource and enjoyed access to instruments of war, it is doubtful that this condition would have been sufficient to enable the smiths to establish political hegemony over the rest of Igboland. Given the Igbo aversion to autocratic control, such an attempt would have met with stiff opposition. The general acceptability of the smiths wherever they went might have been partly related to the fact they did not seem to have developed the ambition to interfere in or control the political affairs of their hosts.

It seems then that the precolonial Igbo elite, while not devoid of political ambition, were more interested in working out such arrangements which guaranteed their economic or commercial interest without resorting to state structures. The absence of a formal centralised state in Igboland should not, therefore, be interpreted as evidence of political and cultural underdevelopment, as

conventional wisdom has it. It was a matter of economic and political sense, in a particular political economy.

III. Retrospect

The discussion and analysis made in this work should permit the following summation. Iron technology is very ancient in the Igbo culture area, and although the earliest authenticated evidence of it goes back only to the ninth century, deductive evidence suggests a much earlier date. The history of this technology prior to the Igbo-ukwu dates, and from those dates to around the mid-sixteenth century remains a mystery. When, where and how the technology started in the Igbo area are questions which still await ascertainable answers. Archaeology should play a leading role in providing the answers to these questions.

Indirect evidence points to the Nsukka area as the most probable cradle of the technology in Igboland. However, it does not appear that all parts of Igboland received the technology from the same source. Some communities in the Nsukka area borrowed the technology from Igala and some from Idoma, while some Igala and Idoma communities borrowed from Nsukka. The other line of diffusion was from east of the Cross River through immigrants who went on to settle at Uturu and Abiriba.

The availability of iron ore seems to have been a

primary determinant of the direction of spread of the technology during the early phase of the period of our purview. Not only were the iron working centres located in the northern third or so of Igboland, but all the centres did both smelting and smithing. Awka and Nkwere were the first exceptions to this rule; even then, they were able to break the rule because of their proximity to major smelting centres, namely, Udi, in the case of Awka, and Uturu, in the case of Nkwere.

European importation of unfabricated iron encouraged the precedents set by Awka and Nkwere. The spatial extent and direction of the diffusion of the technology was no longer determined by the availability of a smelting industry. European import of iron must have been a welcome development to the smiths. It made iron more easily available than before, and this had the effect of quickening the pace at which the technology was being diffused southwards. In the long run, this situation resulted in the relative decline of the industry in the northernmost part of Igboland, that is, the Nsukka area.

While iron imports contributed to the spatial expansion of smithing, it had an opposite effect on smelting. In the seventeenth and perhaps the eighteenth century as well, iron imports may have supplemented local iron in the hinterland of southeastern Nigeria. By around

the mid-nineteenth century, local iron may have supplemented the imported iron. The decline of local smelting arose from a combination of factors -- ecological, economic and technological. Rapidly dwindling sources of wood fuel and ore made smelting more and more labour-intensive and progressively less competitive against imported iron.

Iron working was made to seem as a divinely endowed skill, and could not be undertaken by oheke, except under the special dispensation of an iron worker. Although the production system was couched in mystique, the iron workers had a practical grasp of what they were doing. For instance, it was the need to ensure a good mastery of the skill which made the training of a smith apprentice a long, drawn out and rigourous process.

The smiths demonstrated uncanny and enterprising spirit. They expanded the range of their traditional production by incorporating imported metal wares into their pre-contact repertory. To maximise the economic rewards of their profession, they travelled extensively throughout southeastern Nigeria and beyond. Their journeys took them as far west as Yorubaland, east to the Cameroons, north to the Niger-Benue confluence and to the delta and Ogoni country in the south.

Through these extensive peregrinations, they were

able to exploit dispersed nuclei of high purchasing power. In their travels, the smiths were wont to traverse areas with different economic bases. This placed them in an ideal position to trade products from one area of supply or plenty to another of scarcity and high demand. The blending of trade and technology and other sidelines brought substantial incomes to the smiths. Their affluence was manifested in their dominance of the important title societies in their communities, a position which conferred on them an enviable degree of political and social influence.

The overall picture of the precolonial Igbo society and economy which can be drawn from this work challenges many of the generalisations encountered in the textbooks. Reverend Basden expressed the view that before colonial rule was imposed on the Igbo people, "the sole inducement to work was to provide food and shelter", which, he asserted, was done "in a perfunctory manner". According to him, the means of livelihood were within easy reach, so "there was no call for initiative, nor demand for strength of purpose"[82] from the people.

The above description is a typical portrayal of the 'lazy native', basking in tropical abundance and extolling the virtues of idleness. It was one of the ideologies used to justify colonialism. It falls squarely into that

category of myths caricatured by Anthony G. Hopkins as "Primitive Africa".[83] Our evidence shows clearly that, contrary to the above impression, the domestic economy of precolonial Igboland, indeed, southeastern Nigeria, was far from purely subsistence agriculture. It was diversified, vibrant and had its internal dynamics for change and growth. There was a great deal of zonal interdependence which encouraged intercommunal trade.

The people, as judged from the smiths and other professional groups such as the Aro and the Nri, were hardy entrepreneurs. They took risks and faced hardships in travelling long distances, away from the comfort and security of their homes and companionship of their families. Contrary to Basden, the travels were not undertaken to satisfy subsistence needs; in general, the professional groups lived above the level of the majority of the population.

The smiths' work ethos has important lessons for education and job training in Nigeria today. The smiths were meticulous about training apprentices, fussy about the quality of their products and the public relations image of their members. Their general work ethic, which was reminiscent of the "protestant work ethic", emphasised the dignity of hard work. No country ever developed with everybody wearing white collars, which seems to be the

trend in Nigeria today. The smiths became wealthy, in the context of the society at the time, by sheer hard work and enterprise. This is contrary to the vogue in Nigeria today. An overdeveloped kleptocratic mentality has led to a situation in which public officers can become millionaires through the award of government contracts and the like.[84]

The smiths were leaders of the society and enjoyed privileges of leadership. But, unlike present day Nigerian leaders, they had a strong sense of the responsibilities and accountability of leadership. They worked on the principle that leaders should live above board, and censored those members who failed to do so. Theirs, unlike the present or recent Nigerian experience, was responsible leadership.

The spatial operation of the smiths cut across ethnocultural and political boundaries. It demonstrates greater interdependence and interrelatedness between many Nigerian ethnic groups than is usually recognised or acknowledged. This point is worth emphasising for at least three reasons. First, Igbo-Igala relations in precolonial times is most often seen in the context of military confrontations. This is evident, for instance, from the attention which the Onojo Oboni legend has attracted.[85] The tendency to portray the precolonial

southeastern Nigerian society in a perpetual Hobbesian state not only distorts reality, it conceals the more enduring economic and cultural mutual interaction.

Second, 'modern' Nigerian political leaders, in order to feather their personal nests, try to fan the embers of ethnic particularism by emphasising those issues which tend to divide the different ethnic groups while neglecting or de-emphasising those which tend to unite them. This is often aggravated by scholars such as Gerald K. Helleiner, who misleadingly describes the nineteenth century Nigerian society as "in the main, a collection of communities, essentially isolated from one another ...",[86]

The notion of islands of subsistence and self-sufficiency with institutionalised levelling mechanisms designed to ensure, as Hopkins puts it, a "democracy of poverty",[87] is an article of faith. Occupational specialisation was evidently an important feature of the domestic economy of precolonial southeastern Nigeria. One result of this was disparity in wealth and the concommitant differentiation in social and political status.

## CHAPTER FIVE: ENDNOTES

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[84]Though not documented, it is an open secret in Nigeria that officers who are in a position to award contracts receive 10% of the value of the contract -- for doing their jobs!

[85]This is a subject that never fails to be discussed at length in Igbo-Igala relations. See, Nook, Ethnographic Report, pp. 3-6; A.J. Shelton, The Igbo-Igala Borderland, (Albany, 1971); Afigbo, Ropes of Sand, pp. 117-121.

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# APPENDIX ONE

A.

## Genealogy of Dunoka Lineage, Lejja

| | |
|---|---|
| Ugwueke | c.1542 - 1572 |
| Lejja | c.1572 - 1602 |
| Umuoda Dalugwu | c.1602 - 1632 |
| Uga | c.1632 - 1662 |
| Umuakpu | c.1662 - 1692 |
| Ishimelu | c.1692 - 1722 |
| Umuda | c.1722 - 1752 |
| Ama Eshibedim | c.1752 - 1782 |
| Ekpuruohe | c.1782 - 1812 |
| Demoguma | c.1812 - 1842 |
| Umehi Ume Ehi | c.1842 - 1872 |
| Eze Elemani | c.1872 - 1902 |
| Ezeloku Ezeohe | c.1902 - 1912 |

B.

## Genealogy of Umuagu Onusa, Nkwere

| | |
|---|---|
| Eshi | c.1559 - 1589 |
| Okwaraeshi | c.1589 - 1619 |
| Onusa Nkwere | c.1619 - 1649 |
| Okwara Chukwu | c.1649 - 1679 |
| Okwara Oji Chukwu | c.1679 - 1709 |
| Omiri | c.1709 - 1739 |
| Mgbaebale | c.1739 - 1769 |
| Okochi Mgbaebale | c.1769 - 1799 |
| Nwagu Omeri | c.1799 - 1829 |
| Oji Nwagu | c.1829 - 1859 |
| Okwara Oji (d.1935) | c.1859 - 1889 |
| Onwuaso (Regent) | c.1889 - 1919 |
| Cletus Okwaraoji | 1929 (exact date of birth) |

C.

Genealogy of Amube Orba

| | |
|---|---|
| Ube Lejja | c.1571 - 1601 |
| Ebiri Igwe | c.1601 - 1631 |
| Agama Idenyi | c.1631 - 1661 |
| Agbo Ukwueze Agama | c.1661 - 1691 |
| Idenyi Ukwueze | c.1691 - 1721 |
| Ugwu Eguru | c.1721 - 1751 |
| Asadu Eguru | c.1751 - 1781 |
| Agbo Ukwueze | c.1781 - 1811 |
| Okwo Nwagbo-Ukwueze | c.1811 - 1841 |
| Ngwu Nweguru | c.1841 - 1871 |
| Onyishi Nwagama | c.1871 - 1901 |

D.

## Genealogy of Umazi Okweshi, Agulu Umana

| | |
|---|---|
| Anieyiagu | c.1574 - 1604 |
| Eji Ukwa | c.1604 - 1634 |
| Uya | c.1634 - 1664 |
| Ugwa | c.1664 - 1694 |
| Ogu Oji | c.1694 - 1724 |
| Aneme Ogu | c.1724 - 1754 |
| Omekwu Oji | c.1752 - 1784 |
| Okweshi | c.1784 - 1814 |
| Ozo Igbo | c.1814 - 1844 |
| Chinegbu Udeigbo | c.1844 - 1874 |
| Kanu Chinegbu | c.1874 - 1904 |

E.

## Genealogy of Umuogbu Village,

## Agulu Awka, Umunna House

| | |
|---|---|
| Nnebuzo | c.1604 - 1634 |
| Agulu Nnebuzo | c.1634 - 1664 |
| Ogbu Nnebuzo | c.1664 - 1694 |
| Agbala | c.1694 - 1724 |
| Adumagha Ngoji | c.1724 - 1754 |
| Agbala | c.1754 - 1784 |
| Abade | c.1784 - 1814 |
| Nweje Ademeghe | c.1814 - 1844 |
| Otoyo Umunna | c.1844 - 1874 |
| Umunna | c.1874 - 1904 |
| Albert Umunna | c.1904 - 1908 |

F.

Genealogy of Umuashane, Umundu

| | |
|---|---|
| Ashane Ogiri | c.1629 - 1659 |
| Ikpa Nshima | c.1659 - 1689 |
| Eze Nwa Ojo | c.1689 - 1719 |
| Idoko Eze Ojo | c.1719 - 1749 |
| Eya Idoko | c.1749 - 1779 |
| Eya Aba | c.1779 - 1809 |
| Eze Ojo | c.1809 - 1839 |
| Obili Idoko | c.1839 - 1869 |
| Agbaeze Ojo | c.1869 - 1899 |
| Ogbodo Agbo | c.1899 - 1929 |

# APPENDIX TWO

## Some Iyu Aba Vocabulary

| Iyu Aba | Igbo Translation | English Translation |
|---|---|---|
| 1. Nwami akpogo nwuo | Ga lee ma nne gi osigo nri rie | Find out whether your mother has prepared and eaten her meal |
| 2. Akpogo nwuo | Origo nri | She has taken her meal |
| 3. Koko nwam fete nwona | Enyi m bia ebea | Come here, my friend |
| 4. Sli scampu | Onye uwe ojii | A police constable |

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| Informant | IHT No. | Place of Interview | Date |
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| Dick Achonwa | 1 | Umunachi Nkwere | 21/8/82 |
| J. Ngonna | 2 | Umunachi Nkwere | 31/8/82 |
| Laz Nwozu | 3 | Amaoji Nkwere | 1/9/82 |
| Eze Justus | 4 | Okwuinyi Nkwere | 3/9/82 |
| Eze Christopher | 5 | Umuozu Isu | 3/9/82 |
| Duru Onyecheze | 6 | Umuokwaruru Nkwere | 4/9/82 |
| John Orisakwe | 7 | Duroma Umuozu | 12/9/82 |
| Ude Nwuma | 8 | Aku Nsukka | 26/9/82 |
| Ugbo Nwuma | 9 | Aku Nsukka | 26/9/82 |
| Okafor Okorie | 10 | Aku Nsukka | 26/9/83 |
| C.N. Obiesie | 11 | Obosi | 6/1/83 |
| Robert Anekwe | 12 | Agulu Awka | 7/5/83 |
| O.N. Okonkwo | 13 | Amawbia Awka | 21/5/83 |
| Panama Ifejika Nwangu | 14 | Amikwo Awka | 21/5/83 |
| Nwachukwu Nwanyanya | 15 | Umubele Awka | 21/5/83 |
| Okezie Idika | 16 | Okon-Aku Ohafia | 7/6/83 |
| Maduekwe Kalu | 17 | Asaga Ohafia | 7/6/83 |
| Igboko Kalu | 18 | Ndi Ezema Abiriba | 8/6/83 |
| Ezikpe Kalu | 19 | Amogugu Abiriba | 8/6/83 |
| Joe Ngonna | 20 | Umunachi Nkwere | 1/7/84 |
| Dick Achonwa | 21 | Umuko Nkwere | 1/7/84 |

| | | | |
|---|---|---|---|
| Laz Nwozu | 22 | Amaegbu Nkwere | 1/7/84 |
| Eze J. Ugochukwu | 23 | Ukwuinyi Nkwere | 2/7/84 |
| Christopher Ibe | 24 | Umuozu Nkwere | 3/7/84 |
| Duru Ukwuaom Onyechege | 25 | Umuokwaruru Nkwere | 3/7/84 |
| Ugwuade | 26 | Umueri Umundu | 4/7/84 |
| Richard Okanya | 27 | Akibite Aku | 4/7/84 |
| Ugwu Nweze | 28 | Lejja | 6/7/84 |
| Ovute Nwozo | 29 | Ugwunani Aku | 7/7/84 |
| Ovute Nwozo | 30 | Ugwunani Aku | 7/7/84 |
| Ododire Nwoko | 31 | Akibite Aku | 10/7/84 |
| Richard Okanya | 32 | Akibite Aku | 10/7/84 |
| Ododire Nwobodagu | 33 | Akibite Aku | 10/7/84 |
| Edward Eze | 34 | Akibite Lejja | 13/7/84 |
| Edward Eze | 35 | Akibite Lejja | 14/7/84 |
| Ugwu Nweze | 36 | Uwani Lejja | 16/7/84 |
| Agu Nwagbenu | 37 | Uwani Lejja | 19/7/84 |
| Agwu Nwagbenu | 38 | Akibite Lejja | 19/7/84 |
| Odo Igboke | 39 | Umuegalika Umundu | 25/7/84 |
| John Orisakwe | 40 | Duruoma Isu | 1/8/84 |
| Abraham Igbokwe | 41 | Okpuala Umukabia | 1/8/84 |
| Igboamusi Okwaraodu | 42 | Ekwereazu Owa | 1/8/84 |
| Ubani Ogbonna | 43 | Isingwu Ohuhu | 5/8/84 |
| Emekobum | 44 | Isingwu Ohuhu | 5/8/84 |
| Joseph Oke Ozioko | 45 | Umukashi Nsukka | 7/8/84 |

| | | | |
|---|---|---|---|
| Amadi Onwuaso | 46 | Onusa Nkwere | 8/8/84 |
| William Akponu | 47 | Amaogbu Nkwere | 8/8/84 |
| Jason Kalu Otuekere | 48 | Umuduroji Nkwere | 11/8/84 |
| Angle Uzochukwu | 49 | Umuko Nkwere | 11/8/84 |
| Augustine Nwadike | 50 | Onusa Nkwere | 13/8/84 |
| Amadi Onwuaso | 51 | Onusa Nkwere | 13/8/84 |
| J.O. Igbokwe | 52 | Umuko Nkwere | 15/8/84 |
| Nwosu Igbokwe | 53 | Umunuba Nkwere | 15/8/84 |
| Odum Onyekwe | 54 | Onusa Nkwere | 19/8/84 |
| Cyril Onukwute Ojukwu | 55 | Umuko Nkwer | 19/8/84 |
| Ebenechi Eze | 56 | Aguiyi Amokwe | 27/8/84 |
| Maduagu Nwolisa | 57 | Obinuhu Nkwere | 28/8/84 |
| James Maduka | 58 | Ugwuogu Ikuru | 29/8/84 |
| Dugwu Ezea | 59 | Dimotue Aku | 5/9/84 |
| Odo Nwaghoji | 60 | Dimotue Aku | 5/9/84 |
| Odo Nwozo | 61 | Dimotue Aku | 5/9/84 |
| Onuduogu Eze | 62 | Uwani Aku | 6/9/84 |
| Ozo Ogbonnaya | 63 | Uwani Aku | 6/9/84 |
| Okpo Equrube | 64 | Uwani Aku | 6/9/84 |
| Nnaji Nwoti | 65 | Ama Uwani | 6/9/84 |
| Ama Agu | 66 | Ama Uwani | 6/9/84 |
| Oyan Equsigo | 67 | Ama Uwani | 6/9/84 |
| Ofo Ogbonnaya | 68 | Ama Uwani | 6/9/84 |
| Igwe O.C. Manu | 69 | Eluocha Aku | 7/9/84 |

| | | | |
|---|---|---|---|
| Ode Nwuma | 70 | Ujata Amogu | 7/9/84 |
| Jonathan Ugwuanyi | 71 | Umuaya Umundu | 20/9/84 |
| Odo Agbo | 72 | Umuaya Umundu | 20/9/84 |
| Jonathan Odo | 73 | Umuaya Umundu | 20/9/84 |
| Nnaji Eya | 74 | Umuaya Umundu | 20/9/84 |
| Benedict Odo | 75 | Umuaya Umundu | 20/9/84 |
| Nnaji Eya | 76 | Umuaya Umundu | 24/9/84 |
| Ogbodo Agbo | 77 | Umuaya Umundu | 25/9/84 |
| Ugwu Nnamani | 78 | Umuikpa Umundu | 26/9/84 |
| Joe Odo | 79 | Umuojogwu Umundu | 3/10/84 |
| Mark Ogbonnaya | 80 | Umuojogwu Umundu | 7/10/84 |
| Ugwu Nnamani | 81 | Umuikpa Umundu | 7/10/84 |
| Ugwuarego Agbo | 82 | Umugwu Ekwom | 11/10/84 |
| Lazarus Ugwuja | 83 | Umugwu Ekwom | 11/10/84 |
| John Agbo | 84 | Umugwu Ekwom | 11/10/84 |
| Madu Nweze | 85 | Umugwu Ekwom | 13/10/84 |
| Onyishi Umuikpa | 86 | Umuikpa Umundu | 14/10/84 |
| Jonathan Odo | 87 | Umuaya Umundu | 14/10/84 |
| Odo Ignatius | 88 | Umuaya Umundu | 14/10/84 |
| Ugwu Ugwuanyi | 89 | Eha Ndiagu | 15/10/84 |
| Aleke Nweze | 90 | Eha Alumona | 16/10/84 |
| Goddy Ezeani | 91 | Lejja | 17/10/84 |
| Ngwu Nwagama Nwodo | 92 | Amube Eguru | 19/10/84 |
| Laz Ugwuja | 93 | Umugwu Ekwom | 19/10/84 |
| Odoh Ugwuanyi | 94 | Umugwu Ekwom | 19/10/84 |

| | | | |
|---|---|---|---|
| Goddy Odoh | 95 | Obolo Nsukka | 25/10/84 |
| Jacob Eze | 96 | Agulu Uwani | 2/11/84 |
| Fedelis Agu | 97 | Uwani Amokwe | 5/11/84 |
| Umazi Okwesi | 98 | Agulu Umana | 5/11/84 |
| Richard Okoli | 99 | Uwani Amokwe | 5/11/84 |
| Okafor Okoli | 100 | Uwani Amokwe | 5/11/84 |
| Okafor Okoli | 101 | Uwani Amokwe | 6/11/84 |
| Obioma Okoli | 102 | Uwani Amokwe | 6/11/84 |
| Aneke Eneja | 103 | Umueze Obeleagu | 6/11/84 |
| Gabriel Onyia | 104 | Umuabia Umana | 6/11/84 |
| Nnaji Omekwu | 105 | Umuasi Umana | 7/11/84 |
| Oji Omekwu | 106 | Umuasi Umana | 7/11/84 |
| Odio Ezejiofor | 107 | Agulunta Umana | 7/11/84 |
| Aneke Nwigbo | 108 | Agulu Umana | 12/11/84 |
| Reubeh Uwakwe | 109 | Agulu Umana | 27/11/84 |
| Kanu Chinegbu | 110 | Agulu Umana | 27/11/84 |
| Aneke Nwigbo | 111 | Agulu Umana | 27/11/84 |
| Ugwu Egwu Ishiwu | 112 | Amube Eguru | 14/12/84 |
| Onyishi Nwagama | 113 | Amube Eguru | 14/12/84 |
| Ohagwu Ayoghu | 114 | Amube Ezike | 21/12/84 |
| Jideofor Chijindu | 115 | Agulu Umana | 21/12/84 |
| Oji Omekwu | 116 | Agulu Umana | 21/12/84 |
| Thomas Ugwuoja | 117 | Leke Ekoi | 22/12/84 |
| Ugwuanyi Nnamani | 118 | Ndi Nwala Ukehe | 24/12/84 |
| Donatus Ugwu | 119 | Ndi Nwala Ukehe | 24/12/84 |

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| Jonas Ugwu | 120 | Ndı Nwala Ukehe | 25/12/84 |
| Oji Omekwu | 121 | Agulu Umana | 10/1/85 |
| Stephen Anya | 122 | Agulu Umana | 11/1/85 |
| Ugwu Nwalı | 123 | Ejerem Lejja | 15/1/85 |
| Albert Eze | 124 | Amuzu Uhunowere | 18/1/85 |
| Ogbonnaya Joseph | 125 | Amuzu Uhonowere | 18/1/85 |
| Ebenechı Eze | 126 | Agulu Amokwe | 21/1/85 |
| Ugwu Nwezı Nwiyiku | 127 | Lejja | 21/1/85 |
| Nwuocha Odiuche | 128 | Umuanaga Awka | 24/1/85 |
| George Nwonu | 129 | Umuanaga Awka | 24/1/85 |
| Nweke Obu | 130 | Umuogbu Awka | 27/1/85 |
| Panama Udumurı Ego | 131 | Amıkwo Awka | 28/1/85 |
| Nwanne Ikwu | 132 | Agulu Awka | 29/1/85 |
| Nweke Ejobe | 133 | Agulu Awka | 29/1/85 |
| Albert Umunna | 134 | Umuogbu Awka | 30/1/85 |
| Johnson Mmaghadana | 135 | Umuogbu Awka | 30/1/85 |
| Albert Umunna | 136 | Umuogbu Awka | 30/1/85 |
| Johnson Mmaghadana | 137 | Umuogbu Awka | 30/1/85 |
| Nwakası Chıdeze Ozo | 138 | Umuogbu Awka | 1/2/85 |
| Nwanna Chukwuma | 139 | Umuogbu Awka | 2/2/85 |
| Nweke Obu | 140 | Umunaga Awka | 2/2/85 |
| Albert Eze | 141 | Umuokpu Uhunowere | 3/2/85 |
| Robert Igweze | 142 | Agulu Awka | 3/2/85 |
| Robert Igweze | 143 | Agulu Awka | 4/2/85 |
| B.A.I Umerah | 144 | Umuonechi Awka | 4/2/85 |

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| George Nwonu | 145 | Agulu Awka | 4/2/85 |
| George Nwonu | 146 | Agulu Awka | 8/2/85 |
| Nwokoye Nnonyelu | 147 | Umubele Awka | 8/2/85 |
| B.A. Umerah | 148 | Umuenechi Awka | 8/2/85 |
| Okafor Umunna | 149 | Umuogbo Awka | 10/2/85 |
| Ikwunne Ifeanyi | 150 | Umuogbu Awka | 10/2/85 |
| Nwek Obu | 151 | Umuogbu Awka | 10/2/85 |
| Anthony Okeke | 152 | Enugu Ukwu | 15/2/85 |
| Dike Ikwunne | 153 | Umuogbu Awka | 15/2/85 |
| Akunne Umunna | 154 | Umubele Awka | 16/2/85 |
| Nwachukwu Nwanyanya | 155 | Umubele Awka | 17/2/85 |
| Okeke Ifeachor | 156 | Umuike Awka | 19/2/85 |
| I. Nwofor | 157 | Umuajagwa Awka | 21/2/85 |
| Chinawa Jideofor | 158 | Umuike Awka | 22/2/85 |
| Maduagwu Nwolisa | 159 | Umunubo Nkwere | 25/2/85 |
| Eze Justus Ugochukwu | 160 | Eshi's Palace | 25/2/85 |
| Fred Anyiam | 161 | Umunaga Nkwere | 25/2/85 |
| Christopher Anyiam | 162 | Umunaga Nkwere | 25/2/85 |
| Cletus Okwaraoji | 163 | Onusa Nkwere | 26/2/85 |
| Okafor Nwoha | 164 | Isiagu Amikwo | 2/3/85 |
| Dick Achonwu | 165 | Umuokwaraoji Nkwere | 2/3/85 |
| Eze Alphonsus | 166 | Onusa Nkwere | 2/3/85 |
| J.O. Igbokwe | 167 | Onusa Nkwere | 10/3/85 |

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| Daniel Anebunwa | 168 | Umuko Nkwere | 12/3/85 |
| E.U. Emetu | 169 | Ukwuebu Nkwere | 21/3/85 |
| Igbokwe Asiegbu | 170 | Amaegbu Nkwere | 22/3/85 |
| Lazarus Osuagwu | 171 | Amaoji Nkwere | 22/3/85 |
| Peter Akaose | 172 | Umunachi Nkwere | 22/3/85 |
| Wilfred Anueyiagu | 173 | Amaoji Nkwere | 22/3/85 |
| Cletus Okwaraoji | 174 | Onusa Nkwere | 23/3/85 |
| Sylvester Okenkwo | 175 | Ndi Owere Mbano | 23/3/85 |
| Titus Ikeneri | 176 | Umuzu Mbano | 25/3/85 |
| Willy Anueyiagu | 177 | Amoji Nkwere | 28/3/85 |
| Anele Uzochi | 178 | Umuko Nkwere | 28/3/85 |
| Eze Nwonya | 179 | Agulu Amokwe | 2/4/85 |
| Aneke Nwigbo | 180 | Agulu Umana | 2/4/85 |
| Chinta Duruemezie | 181 | Mbieri Oweri | 6/4/85 |
| Ngooka Ikwugbado | 182 | Umuagwu Mbieri | 6/4/85 |
| Ononogbo Igbo | 183 | Achi Mbieri | 6/4/85 |
| Ezekiel Asugha | 184 | Obinuhu Nkwere | 28/4/85 |
| Ejim Akuma | 185 | Eji Comp Abiriba | 28/4/85 |
| Ejim Akuma | 186 | Eji Comp Abiriba | 29/4/85 |
| Alili Nweze | 187 | Umueguru Ihuagwa | 19/5/85 |
| Okafor Ene | 188 | Umuaga Udi | 19/5/85 |
| Okeke Aneke | 189 | Umuaga Udi | 19/5/85 |
| Ozoemena Ude | 190 | Umuaga Udi | 19/5/85 |
| Ozoemena Ude | 191 | Umuaga Udi | 20/5/85 |
| Okafor Ene | 192 | Umuaga Udi | 20/5/85 |

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| Okeke Aneke | 193 | Umuaga Udi | 20/5/85 |
| Ogbonnaya Ubani | 194 | Isiagwu Ohuhu | 20/5/85 |
| Aguwa Awaibe | 195 | Umuokwerinta Ohuhu | 21/5/85 |
| Emekobum | 196 | Isiagwu Ohuhu | 21/5/85 |
| Joe Ugwuanyi | 197 | Edem Ani Nsukka | 21/5/85 |
| Abel Abu | 198 | Nsukka | 21/5/85 |
| Alloy Anyojiaka | 199 | Umuka Nkwere/ Enugu | 22/5/85 |
| Jonathan Ugwuanyi | 200 | Edem Ani Nsukka | 22/5/85 |
| Cornelius Agbodike | 201 | Amikwo Awka | 22/5/85 |
| Igwenagu Okoli | 202 | Aguli Amokwe | 22/5/85 |
| Okezie Idika | 203 | Okon Aku | 23/5/85 |
| Maduekwe Kalu | 204 | Asaga Ohafia | 23/5/85 |
| Idika Kalu | 205 | Okon Aku Ohafia | 23/5/85 |
| Ndukwe Ezenna | 206 | Umumera Uturu | 24/5/85 |
| Abel Abu | 207 | Archaeology Lab, Nsukka | 24/5/85 |
| Alloy Onyejiaka | 208 | National Archives Enugu | 24/5/85 |
| Aru Nwanyi | 209 | Nsukka/Obolo | 26/5/85 |
| Joe Ugwuanyi | 210 | Archaeology Lab, U.N.N. | 26/5/85 |
| Godwin N. Odoh | 211 | Archaeology Lab, U.N.N. | 26/5/85 |
| Kalu Uche | 212 | Amogugu Abiriba | 27/5/85 |
| Gordian Nwaturukpo | 213 | Achara Uturu | 27/5/85 |
| Frod Anozie | 214 | Archaeology Lab, U.N.N. | 27/5/85 |

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| George Agbai | 215 | Elu Ohafia | 28/5/85 |
| Okezie Idika | 216 | Okon Aku, Ohafia | 28/5/85 |
| Fred Anozie | 217 | Archaeology Lab, U.N.N. | 28/5/85 |
| Rev. Abosi | 218 | Amogugu Abiriba | 28/5/85 |
| O.O. Ibe | 219 | Nsukka/Abiriba | 28/5/85 |
| Igboko Kalu | 220 | Abiriba | 29/5/85 |
| Rev. Abosi | 221 | Amogugu, Abiriba | 29/5/85 |
| Ekea Ifegwu | 222 | Amogugu, Abiriba | 29/5/85 |
| Ejim Akuma | 223 | Amogugu, Abiriba | 29/5/85 |
| Goddy Odo | 224 | Obolo Nsukka | 31/5/85 |
| Egeonu Mwokeoju | 225 | Umuawa Ohuhu | 31/5/85 |
| Aguwa Awaibe | 226 | Umukwenta Ohuhu | 31/5/85 |
| Amama Orji | 227 | Ugwuosu Uturu | 31/5/85 |
| Anthony Uwaleka | 228 | Ubowalla, Emekuku | 1/6/85 |
| Dominic Opara | 229 | Umuakuru Emekuku | 1/6/85 |
| Godwin Ihenacho- | 230 | Akalovo, Emekuku | 1/6/85 |
| Simeon Ihezuo | 231 | Ubowalla, Emekuku | 3/6/85 |
| Patrick Mbata | 232 | Ubowalla, Emekuku | 3/6/85 |
| Patrick Mbata | 233 | Ubowalla, Emekuku | 4/6/85 |
| Simeon Ihezuo | 234 | Ubowalla, Emekuku | 4/6/85 |
| Ogbuefi Chiedu Abama | 235 | Umuakama-Nwafo, Nri | 6/6/85 |
| Ogbuefi Chiedu Abama | 236 | Umuakama-Nwafo, Nri | 7/6/85 |
| Peter Okoronkwo | 237 | Abueke Etiti | 10/6/85 |
| Chiwike Ubaghaji | 238 | Abueke Etiti | 10/6/85 |

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| Paul Ndubuisi | 239 | Abueke Etiti | 10/6/85 |
| Enock Ugoeke | 240 | Abueke Etiti | 12/6/85 |
| Dike Ochoku | 241 | Abueke Etiti | 12/6/85 |
| Paul Ndubuisi | 242 | Abueke Etiti | 12/6/85 |
| Mail Nkagbu | 243 | Achara Uturu | 16/6/85 |
| Gordian Nwaturuokpu | 244 | Achara Uturu | 16/6/85 |
| Ndukwe Ezema | 245 | Umumara Uturu | 16/6/85 |
| Raymond Agbo | 246 | Umuaya Umundu | 16/6/85 |
| Ugwu Ona Ugwu | 247 | Umuaya Umundu | 19/6/85 |
| Ben Odo | 248 | Umuaya Umundu | 19/6/85 |
| John Ezike | 249 | Uwani Aku | 20/6/85 |
| Mang Ugbonnaya | 250 | Amogugu, Abiriba | 22/6/85 |
| Uche Eke | 251 | Amogugu, Abiriba | 22/6/85 |
| Odo Madu | 252 | Eha Ndiagu | 26/6/85 |
| Raymond Agbo | 253 | Umuaya Umundu | 26/6/85 |
| Odo Osigide | 254 | Umumeri, Umundu | 27/6/85 |
| Vincent Ude | 255 | Agulu Umana | 28/6/85 |
| Ude Nwigbo | 256 | Agulu Umana | 28/6/85 |
| Chinamwa Ofor | 257 | Agulu Umana | 28/6/85 |
| John Ezike | 258 | Ugwunani Aku | 29/6/85 |
| Silas Ngwu | 259 | Amube Orba | 29/6/85 |
| Michael Onyejiji | 260 | Nbaukwu | 29/6/85 |
| Ifeanyi Izuako | 261 | Mbaukwu | 29/6/85 |
| O.O. Ibe | 262 | Nsukka/ Abiriba | 30/6/85 |

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| Kalu Nkpa | 263 | Amogudu, Abiriba | 30/6/85 |
| Kalu Dingba | 264 | Amogudu, Abiriba | 30/6/85 |
| Okorie Anya | 265 | Amogudu, Abiriba | 30/6/85 |
| Enyinna Kalu | 266 | Amogudu, Abiriba | 30/6/85 |
| Michael Onyeji | 267 | Mbaukwu/Nsukka | 1/7/85 |
| Ndukwe Aku | 268 | Okon Aku | 1/7/85 |
| Kalu Okwara | 269 | Okon Aku | 1/7/85 |
| Odum Egbuta | 270 | Okon Aku | 1/7/85 |
| Idika Ogbonnaya | 271 | Okon Aku | 1/7/85 |
| Elijah Nwoko | 272 | Achara Uturu | 2/7/85 |
| James Maduka | 273 | Ugwuogu, Uturu | 2/7/85 |
| Richard Ugorji | 274 | Umumana, Uturu | 2/7/85 |
| Ezikiel Uzoigwe | 275 | Achara Uturu | 2/7/85 |
| Johnson Iroaja | 276 | Umumara Uturu | 2/7/85 |
| Onuoha Ofor | 277 | Isunabo | 2/7/85 |
| Samuel Obike | 278 | Ndundu Uturu | 3/7/85 |
| Johnson Iroaja | 279 | Achara Uturu | 3/7/85 |
| Okoroji Ire | 280 | Ndundu Uturu | 3/7/85 |
| Okuke Obule | 281 | Ugwu Uturu | 3/7/85 |
| Morrison Ikpo | 282 | Nvurunvu Uturu | 4/7/85 |
| Odio Ejiofor | 283 | Agulu Umana | 4/7/85 |
| Abraham Igbokwe | 284 | Umukabia Ohuhu | 4/7/85 |
| Iheme Okwuonu | 285 | Uhuokwu Ohuhu | 4/7/85 |
| Abraham Owoghiri | 286 | Nkata Ohuhu | 4/7/85 |
| Isaac Ikonne | 287 | Mbutu, Etiti-Ngwa | 5/7/85 |

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| Shedrack Akoma | 288 | Mbutu, Etiti-Ngwa | 5/7/85 |
| Samuel Onyenso | 289 | Umuijoma, Etiti-Ngwa | 5/7/85 |
| Chief J.T.U. Amuohu | 290 | Mbutu, Etiti-Ngwa | 5/7/85 |
| Mmuoghalu Okwuolisa | 291 | Nnewi | 5/7/85 |
| E. Enweluo | 292 | Nnewi | 6/7/85 |
| Donatus Ebuzoeme | 293 | Nnewi | 6/7/85 |
| Chi Eze | 294 | Nnewi | 6/7/85 |
| Onwuha Acha | 295 | Okon Aku Ohafia | 6/7/85 |
| Okezie Idika | 296 | Okon Aku Ohafia | 7/7/85 |
| Igbokwe Nwozu | 297 | Onusa Nkwere | 7/7/85 |
| Joseph Arua | 298 | Archaeology Lab, U.N.N. | 7/7/85 |
| Gabriel Onyia | 299 | Obeleagu, Udi | 7/7/85 |
| Obioma Eze | 300 | Obeleagu, Udi | 8/7/85 |
| John Eze | 301 | Agulu Umana | 8/7/85 |
| Alloysius Onyejiaka | 302 | Enugu/Nkwere | 8/7/85 |
| Celestin Etukemka | 303 | Onusa Nkwere | 8/7/85 |
| Akaranwolu Nwokocha | 304 | Umurum Ekeaba | 9/7/85 |
| John Onuaha | 305 | Obiagu Ugwu Uturu | 9/7/85 |
| Stephen Oku | 306 | Okpuala Umukabia | 10/7/85 |
| Azaribe Asonye | 307 | Umuegwu Okpuala | 10/7/85 |
| C.C. Agbodike | 308 | Amikwo Awka | 10/7/85 |

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