

About the Book

Professor R.A. Olaye committed most of his over three decades of teaching and research career toward interrogating the changing contours of African indigenous science, technology and economic development especially since the pre-colonial epoch. Olaye's key focus was to understand the diverse nature and values of indigenous techno-scientific ideas and to show how they contributed to the socio-economic, cultural and political development of the Nigeria societies prior to the advent of European colonialism. This book provides an especial historical analysis of the corpus of issues that undergird the field of Indigenous science, technology and economic transformation particularly from the repertoire of Professor R.A. Olaye intellectual sagacity and scholarship over the years. Drawing from rich history of different Nigerian societies, this book demonstrates the *how* and *why* of the various forms, nature, values and challenges associated with the development of indigenous and technology in Africa. From the caboose of history, this book argues that the pursuit and realisation of Africa's sustainable techno-scientific development and industrialization will remain largely a mirage until the enormous potentials that abound in indigenous science and technology across communities in Africa are optimized and prioritized.

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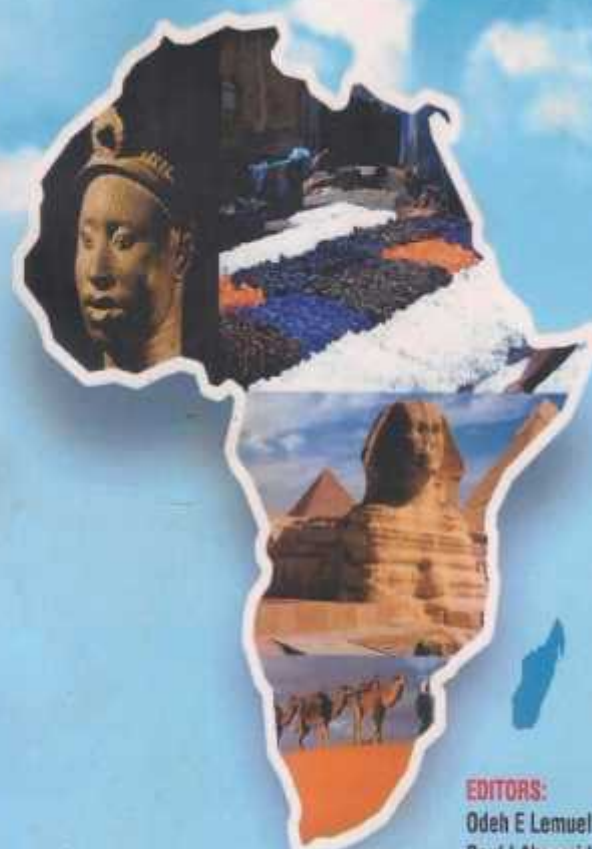
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HISTORY OF INDIGENOUS SCIENCE, TECHNOLOGY AND ECONOMIC TRANSFORMATION IN AFRICA

HISTORY OF INDIGENOUS SCIENCE, TECHNOLOGY AND ECONOMIC TRANSFORMATION IN AFRICA

Essays in Honor of Professor Raimi A Olaye



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CHAPTER 16

Values of Craft Works and Indigenous Knowledge System in Pre-Colonial Igbominaland

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Introduction

Technology and culture are the two first and most important creations of man and so require integral attention. Benjamin Franklin is credited with first defining man as a "tool-making animal."² The making and using of tools is the first evidence of man's ability to reason to solve problems. Since the use of stone implements was the most distinctive feature of early man's culture, it is from this first cultural stage known as the Paleolithic or Old Stone Age the world transformed to the Neolithic and Industrial Revolutions. The development of technology is one of the easiest aspects of human evolution to study. Many historians of science argue that technology is not only an essential condition of advanced, industrial civilization but also that the rate of technological change has developed its own momentum in recent centuries.

Innovations now seem to appear at a rate that increases geometrically, without respect to geographical limits or political systems. These innovations tend to transform traditional cultural systems, frequently with unexpected social consequences. Thus, technology can be conceived as both a creative and a destructive process.

Science, derived from the Latin word *scire*, meaning "to know" is a systematic study of anything that can be examined, tested, and verified. From its early beginnings, science has developed into one of the greatest and most influential fields of human endeavour. Today different branches of science investigate almost everything that can be observed or detected, and science as a whole shapes the way we understand the universe, our planet, ourselves, and other living things.³ On the other hand, technology, derived from the Greek words *tekhnē*, which refers to an art or craft, and *logia*, meaning an area of study; is a general term for the processes by which human beings fashion tools and machines to increase their control and understanding of the material environment.

Thus, technology means, literally, the study, or science, of crafting or systematic knowledge of producing tools and masteries in solving problems. This agrees with Olaoye's view of technology as application of thinking, skills, and hands and accordingly the production of concrete objects of need or as the total means employed by a people to provide materials essential to human existence and comfort, through the acquisition of a technical method to achieve a practical purpose.⁴

The Igbomina and Features of Indigenous Knowledge System No history goes further back than the advent of the Yoruba who trace a mythical origin from Ife. Igbominaland is a land of long history. The Igbomina are heterogeneous sub-group of the Yoruba race who evidently migrated to their present sites from different locations and at different times as from the 14th-17th centuries.⁵ The term 'Igbomina' or 'Igboona' refers to a distinct dialectical unit of the Yoruba, the land they occupy and the language they speak. They are located within longitudes 8° and 9°N and latitudes 4° and 6°E. They are made up of many sub-units such as the Ila, Ipo, Oro, Aran, Iyanga, Isin, Irese, Esisa, Ile-Ire, Oke Ode and Share. Aside the Igbomina diaspora in different proportions across states and continents, the Igbomina as a people are particularly today in the present day Nigeria found in the whole of Ife Odun, Ire Odun and Isin LGAs of Kwara State and Ila and Ifedayo LGAs of Osun State. Igbominaland is bounded in the west by Ilorin; north east by Yagba; southeast by Ekiti; north by the Nupe; southwest by the Ibolu; and south by the present day Oyo State. To the north of the Ijesa and the Ekiti, and east from Oyo live the Igbomina.⁶

The history of indigenous science and technology in Igbominaland shows that from time immemorial, it is endowed with vast expertise in different types of skills and handicrafts i.e. blacksmithery, pottery, traditional medical work, weaving, arts, sculpture and other wood works that are not only fanciful but durable. These technologies were based on culture rooted in empirical knowledge and transmitted from one generation to the other through oral tradition and the process of indigenous apprenticeship system. Thus, some of the crafts and indigenous knowledge grew with the people and became part and parcel of their culture.

Perhaps it should be fore mostly mentioned that agriculture remained the chief human activity among the people. Farming economy was no

doubt very important both as economic, social and religious sustenance and also for the socio-political status of the people. The situation in Igbominaland corroborates Ajayi's position that "African agricultural systems in the pre-colonial epoch were such that the different communities could be regarded as self-contained."⁷

However, there were crafts and trades which were nevertheless, frequently undertaken on part-time bases to complement agriculture. The financing of these additional productive enterprises had been made possible by agricultural surpluses. The occupational differentiation made many to be agriculturalists, specialists' craftsmen and others who took up a particular craft in the farming off-season. The dominant way by which the Igbomina met their material needs were through the products of their indigenous technology, which according to the people was as old as their various settlements. Accordingly, the technology responded adequately to their socio-cultural environment and was able to boost the indigenous economy. The features of these indigenous technologies included:

- The practice of *apprenticeship* (especially in the major crafts) which accounted for the survival, sustenance, preservation and expansion of such crafts and industrial skills.⁸
- *Highly developed socio-economic organization* which existed like *craft or trade unions (Igbé)* that facilitated production, distribution and dissemination of goods.⁹
- Division of labour and
- the eventual specializations in the different phases of the production work.

Apprenticeship in the hereditary crafts began informally from childhood when the parents and other older members of the family took the children to the workshop to watch their works. The children eventually became more involved in the profession first by delivering finished products to customers in the village, handling the tools, repairing damaged products and manufacturing new ones under the strict supervision of experts in the workshop. They became certified professions following these experiences. In another development, learning a craft often began with personal service to the master. Young boys would become house servants to a close relative, who would feed

and clothe them, and after some years of promising usefulness they would then gradually be introduced to the craft of the guardian.¹⁰

Moreover, highly developed socio-economic organization existed like trade unions, facilitating production, distribution and dissemination of goods. Most special guilds and family heads could control production of goods, fix prices and punish the recalcitrant members violating the guild rules.¹¹ The crafts as well as trade guilds were in a nutshell, a form of labour union, regulating tendencies towards cheating and all forms of vices inherent in capitalist societies. Division of labour as well as specializations in the different phases of the production work also became prominent.

From foregoing, one can plausibly and justifiably say that there was in existence occupational differentiation that led to the various crafts popularly summed up as indigenous industries (knowledge system) that played a vital role in the economic activities of the Igbomina people. There is certainly a long list of mastery, works of arts and crafts the Igbomina valued and engaged in during pre-colonial times, references shall only be made to a few of them.

Crafts and Indigenous Knowledge System and Values in PreColonial Igbominaland

Since primitive man's technological aptitudes were so various- painting, modelling, fire making, tool making- without any concomitant biological specialization, as occurs in animal; it is natural to suppose that thought, training and discipline were prerequisites for man's technological achievements. It is therefore a mistake to suppose that early craftsmen lacked principles and theories or that they blindly did what their predecessors had done. Ever since [Stone Age-Palaeolithic and Neolithic periods; Stone Age;...], necessity had always been the mother of inventions 'as it is true that civilisation is mankind's inheritance and inventions often occur in stages in response to felt needs'.¹²

Both the evolution and migration accounts¹³ attest that the earliest occupation of the Igbomina like any primitive man- were gathering, hunting and fishing. They later became subsidiary to agriculture. After farming had become a regular job, gathering became a job for children and women (though) not as a main occupation. It was through this,

some edible and medicinal seeds, leaves, fruits and their functions were discovered. Later, man began to cultivate his own crops and thus communities settled in one place in order to harvest and store crops. The use of tools and later domestication of animals led to more efficient agriculture and the ability to produce more food and hence supported more population. Demands were made on the environment and trees were felled to produce shelters and more land for cultivation. Following the farming economy, there were other occupations such as craft manufacture on part time basis. This aspect of economy was peripheral to agriculture which Hopkins described as the "matrix in which all other indigenous activity is set"¹⁴ From long, it has therefore been the philosophy of *òná kan è wọjà* (diversification) and *àtéléwó ẹni ẹ́í tan ní í ẹ́* (meaning one's personal handiwork assuredly brings fortune). Nevertheless, and emphatically, all their major activities for survival required the use of skills and tools as necessity became the mother of inventions in the different ages.

Hunting grew from being a main practice to a subsidiary job. It indeed provided games meant to supplement animal protein or to get rid of them if they posed a danger to human beings and food crops. On most occasions, savannah hunting needed not compulsorily be a specialized job as any group of people merely set bushes on fire in the dry season and games would be flushed. Therefore, traps of different types were often set to kill both small and large animals. Many of them possessed herbal spiritual weapons in the form of herbal bullet proofs (*asaki ibon, afoobon, ayeta*) and protective charms such as *afose, epe, okigbe, isuju, aferi, egbe, oruka ẹrẹ*-(poisoned ring). Games caught were eaten, sold raw or preserved by smoking. There were cases when specific animals were required for sacrifices within specified days while the non-edibles and other taboo/detestable animals were left untargeted. For instance, no member of Onikoyi family across Igbominaland must eat bush meat (*òkétè*); no one from *ilé Alápá* family in Igbominaland and the people of Agbonda community must neither kill nor eat cobra snake (*ẹjòlá*) lest they eat or kill their forefathers.¹⁵

Early Igbomina hunters (some, being founders) became important as footpath makers; served as security men, making it possible for people to go about their economic activities peaceably. Some of these great hunters did not only become herbalists through their expeditions and observations of the animals, but also left remarkable foot prints on

the sand of time. Already immortalized renowned hunters are Ajagunla, Aworo Ose (Ila), Tii Oye (Ijara), Baragbon (Esie), Siginni Wegbe, the progenitor of Agbeku, Aworefe (Agbele), Ologele (Agbonda), etc.¹⁶

Fishing was less developed in Igbominaland since it was limited to the areas where streams and brooks were available. It was only prominent in a small-scale level among few of the Igbomina settlements such as at *Odo-Orẹ* in *Ògun* Stream; Iwo at *Ogun, Alorẹ* and *Ayaba* Streams; Owu and Iji at *Awẹrẹ* Stream; Oke-Onigbin at *Oyi* River; Arandun/Esie etc in *Osin* River; etc. Perhaps it was also not comparatively prominent because some of the streams were dreaded and worshipped in order to pacify the angry river goddesses. Till date, the mystery behind the raging *Óko* River along Omu-Aran—Oro-Ago Express way is a great concern not only for the entire Igbomina but also Kwara State Government at large.¹⁷

Stock Farming was common as a matter of necessity due to its multi-purpose values. Every family reared at least one or two goats, sheep, rams, dogs and poultry in the free-range system for family consumption and entertainment of visitors. Some young bush animals like hare, snail, nestlings, owlets, squirrels, etc, were domesticated. They could also be requested or received as part of the dowry, which must be compulsorily paid. A kid commonly called *àwónsín ẹran* (separated goat kid) among the people was usually given to the bride to start a goat pen and some numbers of cock/hen to erect poultry. However, the number of cock/hens given varied from village to village but usually an *àwónsín* was given. Hence, stock farming became an economic activity for women especially, which fetched them money in return. Beyond the above reasons and benefits is the philosophy of *Ọlórún áfi ofo r'émí* (loss of property or unpreventable death of stock or domestic animals in substitute for their owners' lives) which is still widely believed and practiced till today. Domestic and material loss may occur when the targeted victim is immuned.¹⁸

It is noteworthy at this juncture that while some of the industries were agro-allied, with some agricultural products serving as raw materials for the local industries, some others were based on mineral working, the predominant being ironsmithing/blacksmithing.

Blacksmithing: Iron working was the most prevalent of all the industries in Igbominaland in the pre-colonial times. Majorly, the three complex and integrated production processes of iron working included: mining, smelting and smithing. In most villages, the miners doubled as the smelters while the smelters could also be the smiths who fashioned the iron into various tools and implements. The smelting process was ritualized and practised in special built factories in order to give it a sort of occupational secrecy and monopoly. The iron was further smelted and cut into smaller sizes in the smitheries - processed into tools and implements such as hoes, arrows, cutlasses, sickles, hairpins, needles, dagger, knives and various types of swords. Ironsmithing/blacksmithing was prominent in the towns usually associated with the worship of *Ògun* i.e. Qba, Qwa-Onire, Isanlu, Iji-Isin, Owode Qfaro, Ila Qrangun, Aran Orin, Omu Aran, etc. Fatai reveals thus:

Owode Ofaro is in Ile-Ire district of the present Ifelodun Local Government Area of Kwara State. From the cultural history of Ofaro and her environs [came] the name Ile-Irin (the home of iron). The name Ile-Irin was used to describe both Ofaro and Owa Onire as the chief producers of Iron, so the name of district -Ile-Ire means Ile-Irin.¹⁹

Vis-à-vis weapons of war,²⁰ the values of Iron and blacksmithery were immeasurable as it made the most remarkable changes in status of the Igbomina from the Stone age to Iron age. The iron tools like spears, knives traps of various kinds, hoe blades, bows and arrows, swords, Dane-guns, etc did not only enable the hunters who collectively went on hunting expeditions to attack some of the great natural barriers or defend themselves against wild animals but also enhanced successful hunting expeditions, agricultural production, division of labour and intra and inter-village trade transactions.

Similarly, there was a close link that existed between iron working, agriculture and political power. Most Igbomina communities and some particular village wards were renowned for their bravery in warfare, as they possessed poisoned arrows, which enabled them to dominate over their hazardous environment and do more damage to the ranks of their raiders and marauders. For instance, around 1787, Iwo and Oke-Aba rallied together against the Nupe invaders at a place called *Akitimó* (where we jointly fought) and got themselves liberated after the

Nupe invaders' leader was victoriously brought down by a poisonous bow and arrow shot by an Oke-Aba warrior.²¹ This response to both the economic and political needs of the people is in consonance with Ogunremi's submission thus:

Iron metallurgy (sic) not only brought economic revolution. It also put political power into the hands of those who knew and used the iron war weapons such as iron-pointed spear, which helped empires to subjugate their neighbours.²²

Specialists' notable for the manufacture of hoes, cutlasses, and other agricultural implements had cognomen or title names associated with family or compound names reflecting and corresponding with *Ògún* in Igbominaland i.e. Ogundele, Ogunbayo, Abogunrin, etc. *Ògún* prefix or suffix still survives till present. For example, the one-time Deputy Governor of Kwara State (Chief Joel Afolabi Ogundéji) among others is one of the strong educated hunters of *Ilé Olú-Qdẹ* compound in Iwo who retains the Ogun prefix. Oral tradition has it that *Òké-Òpé Alágbèdẹ* (the blacksmithing compound) named after such craft in Iwo migrated from Oke-Daba. Others conspicuously engaged included: *Ilé Olú-Qdẹ* in Iwo, *Ilé óndé idí Ògún* in Isanlu, *Ile Baba Alagbèdẹ* in Pamo-Isin, etc. Thus, Clarke did not err by saying that "...Iron is said to be found in these regions in abundance..."²³

On the religious ground, anyone who used any tool of iron identified with the god of iron seeks the favour of *Ògún* who could use such instrument to make the person or cause such object to work against him. Therefore, people prayed, *a ò ní rí ijà Ògún or èèdi* (may we not experience the wrath of *Ògún* or lose consciousness) otherwise, an hunter may use his own *Dane gun* to ignorantly or consciously shoot himself or any household. Till date, people still pray not to travel when the roads wait famished or when wrathful *Ògún* wants to suck and bathe with blood (*a ò ní rìn lójó tēbi ún pòna tàbí ojó tí Ògún ófi èjè wè*). On the whole, it can be said that Iron and blacksmithery revolutionized the efficiency of agriculture, warfare and trade.²⁴

Carving and Sculpturing: Crafts of carving in bronze, stones (i.e. mill stone, breakers, decorating stones) and wood such as Dane guns, calabashes for storing and transporting food stuff and liquids or as

eating utensils, mortars and pestles, were also an aspect of technology in Igbominaland. Products of these industries were used as ornamental, economic and religious materials. Foods, drinks, ritual and sacrificial items were usually carried with calabashes (*igbá ẹbọ, ahú, àdó, akèrègbè*) and pots (*ìkòkò*). Mortars and mills were used to pound medicine or powdering any object. The existence of these remarkable sculptures is still evident and stored in local museums, art studios and private houses. For instance, as in the home stone images (Esie Museum), much smaller caches of soapstone carving in the Esie style have been discovered in Ile-Ire (Ofaro) and Isin (Oba/Ijara).²⁵ Also, a map in a book written by Toyin Falola and others shows some cultural areas with terracotta stone and bronze figurines of which Ijara-Isin is widely recognized.²⁶ The sculptured figures reflect and express the belief, feelings and hopes that the forefathers lived.

Aside being symbols of worship, names, mottoes and phrases were inscribed and burnt into calabashes by artists and carved objects like heads and figurines made important scenery in traditional Qba's palaces, chiefs' houses, market squares, (round-about), shrines of gods and divinities in Igbominaland. Fatai also attests that:

Igbomina boasts of finest collections of arts and crafts which act as their symbol of material and spiritual heritage. Essentially, crafts are grouped into textiles, pottery and ceramics, fibre crafts, bronze, brass and iron works, wood works, calabash decoration, leather works, ivory works, jewelry, etc. Incidentally, Igbomina have people who are versed and versatile in these classes of craft works. However, in the field of wood carving, Igbomina are the leading wood carvers in Nigeria. For instance, the Fakeye family of Inuri's compound, Ila Orangun, is noted for carving wood at highest level. In fact, Prof. Olonade Fakeye of Obafemi Awolowo University is a visiting lecturer to many overseas, remains one of Nigerian produced world class Professors of wood carving Nigeria has ever produced. Interestingly, he never attended any conventional school. Thus, the Ibiyemi family of Edidi is also renowned for wood patterning.²⁷

Pottery Making: Pottery making existed in a small-scale capacity in most Igbomina villages even though clay could be sourced at peculiar sites of every Igbomina village. However, pottery making was pronounced in Odo-Eku, Ada, Gboluoko, Isanlu-Isin, Odo-Ore, Oke Oyi, etc and products were exchanged and traded alongside with Igbaja, Idofian, among others where larger pots were made. Igbaja was widely known for pot making and calabash carving (*Igbàfinfin*).²⁸ However, pottery was widespread because it was an everyday utensil and indispensable to the household as well as for ritual and religious functions. The uses and varieties produced ranged from *àmù* (local refrigerator) for storage of water and other materials, *Ìsasùn* (stew pots), *ajere* (perforated pots for smoking meat/fish), *fitilà* (oil lamps), *Oru* (pots for concoction/ medicine), *Kòkó aró* (industrial dyeing pot), *Kóló* (little penny banks),²⁹ etc.

Soap Making: Soap making, especially black soap (*Qse dúdú*) was practically common in all Igbomina communities. It was made from materials such as ashes, palm kernel oil, cocoa, pods and water. Black soap was not only used for washing and bathing alone but recognized for its medicinal values believed to cure ailments of skin diseases when mixed with appropriate herbal ingredients. Prepared soap solution could be used to wet the floor or the home as preventive medicine against diseases and evil occurrences.³⁰

Mat-weaving: Also provided mats, which served the Igbomina in many useful ways such as seats for (i.e. spiritualists and their clients), beds, demarcations, carpets, chilling boards, fencing a compound just as ropes and baskets were predominantly used in farms and homes for various domestic and spiritual purposes. Weaving, dyeing, etc were exclusively women's job with good quality designs also used for spiritual purposes and occasions.

Traditional Medicine/Magic: The Igbomina believe[d] that everyone was born whole or created perfect by the *asèdá* (Creator) but several factors could lead to failing health, frailty and eventual death. First was to diagnose the cause which could be:

- a) Natural or Physical Causation i.e. flood, earthquake, death, *èfóri* (headache), *ibà* (fever), *àkàndò* (whitlow), etc, with curative and preventive motive.³¹
- b) Mystical Causation (i.e. *ijì jìjà*-disease brought by the evil wind of sorcery or spiritual agents, *sònpòńó* -small pox; *àbíkú* -born to die, etc), requiring sacrifices either for prevention and rehabilitation.³²
- c) Supernatural/Preternatural Causation i.e. serious and protracted illness, unusual malady, sudden death, mysterious occurrence, stupidity, etc via witchcraft and sorcery, etc.³³

Giving this background, traditional medicine/magic was also an aspect of indigenous technologies that has a fairly long history in Igbominaland. It became the first prominent health care system especially in the area of herbal medicine and health care delivery system. Those under the category of first aiders or physical indigenous doctors made use of ingredients such as selected leaves, roots, certain birds and animals, bones, liquids etc to make herbs (concoction) and medicinal oil to rob the body for quick relief. Therefore, medicine was used against diseases, ailments or illnesses of all categories. Little wonder, people confidently say '*Ògùn ló ní ojó òpónjù, orí lóni ojó gbogbo*' (medicine is an antidote on days of ill- health; regular sound health is graciously determined by one's head).³⁴

The pronounced ones were those who could be called specialists or spiritual consultants because medicine might not be applied directly or physically like the above but through mystical powers. Such diseases included: infertility, mental illness, misfortune, spiritual spells, etc. Even till today, most cases rejected from the orthodox hospitals were treated with efficacy by the use of local medicine. Johnson was right when he said:

There are certain persons, doctors by profession (general practitioners) to which people resort on an emergency. They are called *Adahunse*... some of them keep on in their premises a number of invalids suffering from chronic or constitutional diseases... Many of these patients being unable to pay the doctor's fees, style themselves '*Gba mi ora*' i.e. help me and appropriate me. Such persons on being cured became the property (or perpetual house servant) of the doctor.³⁵

Its general values and importance are thus summarized in Mabogunje's observations:

It is a fact of common experience that there is no community that has not developed its own traditional system of care. Even if this comprised no more than the use of the so-called 'witch-doctors', it is well known that in the area of curative practice, they too depend on a lot of herbs of various organic materials... A mobilized society would be forced to incorporate the resources represented by these traditional forms of health service, to use them in a more systematic way to reach out deliberately and upgrade the quality of service of their practitioners and to assess the nature of knowledge, technologies and competence entailed in their form of practice.³⁶

Patronage and continuity was never in doubt as rightly corroborated by Oyeneye thus:

Traditional medicine appears to require low training costs as most of the practitioners are trained under the indigenous apprenticeship system. There is also a general low operating costs both to the practitioners who use local herbs and simple equipment which are also made locally and the patients who often settle their bills in cash or kind.³⁷

Other Arts and Skills: It will be difficult to exhaust information on the multifarious indigenous technologies of the Igbomina as the list is endless. Such other arts and skills included dyeing, drumming skills, leather works, carpentry, palm oil making, palm kernel oil (*adin*), shea-butter lubricant (*òrì*); locust beans processing; tanning, beer brewing, manufacture of beads, hair dressing, scarification (decorative scars and painted patterns), etc. All these were widespread industries throughout Igbominaland. Craft production was carried out in several ways, in the home, outside home by groups as well as individuals and by craft specialists and non-specialists as well as full time and part time craftsmen. The expansion of the crafts and growth of markets for their products were enough evidence that indigenous industries greatly thrived before the in road of Western products, which killed their development and expansion. The crafts and arts were a prototype of African indigenous technology and had responded to the need of the

communities and showed the interaction of the Igbomina with their environments.

Colonialism and Its Effects on the Indigenous Initiatives

Generally, it has become an established fact that no nation can grow beyond its science and technology. There is little controversy regarding the contribution of African science and technology to development. It is established that early experience in science and technology started in Africa. Undoubtedly, Olatunji attests that:

Before the introduction of European slave trade, Africa was developing at the same pace with other continents because Africa was proud to have civilized empires and kingdoms like Songhai, Mali, Ghana, Oyo, Benin, Kanem Bornu, etc. Imperialism and colonialism replaced these flourishing empires with economic, cultural, social and technical stagnation.³⁸

Unfortunately, European and American historians deprived Africans of the knowledge of their early contributions to science by ignoring and misinterpreting the African identity of the ancient Egyptians. One of the grossly misleading impressions was that African society was society condemned to stagnation, marking time without any remarkable scientific and technological discoveries. The European historians concluded that African people had inferior faculty for science and technology.³⁹

As rightly argued by Walter Rodney, 'underdevelopment is not absence of development...every people have developed in one way or another and to a greater or lesser extent'.⁴⁰ It is when country 'A' is compared with country 'B' that one talks of underdevelopment and development. Underdevelopment denotes not just a state of comparative backwardness of a country (in comparison with the developed and advanced countries of the world), but also, more essentially, an incapacity (which may be inherent or induced by external factors) to harness maximally its natural and human resources for the production of wealth, and to utilise rationally such wealth to provide social services essential to the well-being and happiness of its population.⁴¹ Lamentably, underdevelopment is one of Africa's tragic inheritances

from European colonialism, perhaps the most tragically visible of all. It combines with elitism, another colonial inheritance to inflict on Africa a development crisis whose trauma and pains have deformed the face of all African societies.

On the one hand, no matter how, European colonialism in African societies was not itself without some achievements in the area of development. So also African governments since independence have recorded some considerable progress, even some measure of development, in the form of increase in the Gross Domestic Product (GDP) and the introduction of many artefacts of modern living like roads, electricity, pipe-borne water, hospitals, schools, communication, cars, and many other symbols of modernity which were not available to the average African before independence. On the other hand, however, in spite of all this development, Africa still remains today perhaps the most underdeveloped continent, characterised by the not rapid spread of new techniques or technologies from the centres to the edges of their civilizations.

Obviously, Africa's inability to develop and modernise as well as the colonial legacy of her continued underdevelopment after independence has its roots in an aggravating historical circumstance. The exploitation of Africa by European economic imperialism was by means of trade, which ante-dated colonialism by some four centuries. Ever since the 15th century when Europe used its control of shipping on the high seas, supported by its cannon power to open trade relations, the primary motive had been the integration of Africa's economies into those of Europe as a dependent or satellite part thereof. The subordination took different forms as follows:

- i. Africa was made to serve Europe as a source of cheap labour and raw materials, and as a market for European manufacturers. Davidson aptly describes the situation that 'the colonial systems aimed at taking wealth out of Africa, by means of cheap labour, by paying prices to export farmers that were lower than prices on the world market, and by controlling all big business. They brought in modern technology but no technical skill to Africans...They introduced no industrial revolution'.⁴²

- ii. The terms of trade were dictated and controlled in a manner that favoured Europe at Africa's expense. This unequal exchange was forced upon African countries by the monopolistic power of the imperialists. In order to meet up with the cash crop demands and consequently, acquire foreign currencies needed to pay the imposed taxes, many Igbomina communities concentrated on cash crop production as against food crops for the purpose of industrial use. While small-scale planting of Cocoa and other cash crops was done in Isanlu, Oke-Onigbin, Alla, Edidi, Ila-Orangun, etc, many Igbomina people left for the Forest region in the present day Osun, and Oyo states for extensive farm work. Many others also left for Lagos and other cities for greener pasture and white collar jobs.
- iii. What goods African should export were dictated by the changing needs of Europe from time to time-gold, ivory and slaves at first, and later when the trade in slaves was abolished, minerals, ivory, palm produce, groundnut, rubber, cotton, etc. For instance, the Colonial Administration as part of effort to promote economic developments of Isinland on 30th December, 1938, approved the establishment of Isanlu Forest Reserve which covered an area of 313.60 acres. It was situated a mile south of Oke-Onigbin village in the Omu-Isanlu District of Ilorin Emirate. The main objective of the Colonial Administration in establishing the Forest Reserve was to conserve an area of Forest land in order to meet the demand for the supply of timber and building poles in the District.⁴³
- iv. One of the major challenges of colonial rule and consequent economic policies was the problem of industrialisation. Like in other West African region, a major criticism of the colonial administration was its failure to encourage industrial growth since the general policy throughout the period was to fulfil the imperial mission of securing the colonial markets for the metropolitan industries.⁴⁴ Onimode rightly posits thus: if industries were encouraged, the cheap raw materials, labour and unprotected markets for industrial manufactures which dominated the motives for exploits would have been shared between the imperial and home industries.⁴⁵ The British mercantilist policy in respect of industrialisation did not only invest very little in the colonies but also ensured that the bulk of the exports of the colonies went to the metropolitan industries while their industrial goods dominated the markets of the colonies.

- v. In all, Walter Rodney rightly observes that, African economies "ceased to be directed exclusively or even primarily towards the satisfaction of the wants of its inhabitants;" rather, their economic efforts were made to serve external interest thereby undermining their capacity for development.⁴⁶
- vi. Though concerted efforts had been made towards industrialisation in Nigeria via the phases of the development plans and the 1972 Indigenization Decree; policies backing such moves have not been included or emphasized in the nation's development plans.

Suggestions

Lamentably, if Africa could not help herself to technologically advance during the colonial period, should it not liberate herself after many decades of independence by breaking away from the dependence syndrome where her economic, political and technological salvation lies? In India, Gandhi said he was going to apply aspects of so-called Western science but not its tools and he began what was referred to as numeracy of ancient crafts and tools in India. With this determination, it is quite evident that the Indians, have benefited in large measure from this strategy and remain attached to their traditions. Going by India's level of development and self-reliance, African has to look inwards to recognise the very positive part of her own indigenous knowledge system and utilise these elements in her development.

- i. The principle of self-reliance should be extended to the development of local development of local technology like blacksmithing. No Western power would transfer technology to Africa since that would amount to catching up economically with them. Africa can learn from the economic progress and technological take-off of Japan, Korea, Taiwan and later India. Africa must remember that Rome was not built in a day and so Africa should restore confidence in herself and regard agitation for transfer of Western technology to her on a platter of gold as a day-dream.⁴⁷
- ii. There is the need for a close identity between technology and cultural environment in which it exists. Since the indigenous Nigerian societies is yet to develop the ability to successfully adapt foreign technology so as to make it interactive, then some gaps do exist which need to be filled by alternative policy of indigenous technology.

- iii. The country should shift totally from its present non-backward linkage import-substituting industrial strategy to the establishment of heavy industrial type.
- iv. Government should either implore or enforce the industrial sector to re-invest continuously a proportion of their staggering profits in this direction.

Conclusion

It is easy to think that it is only post-industrial man who has had a significant impact on the world. This is not so as pre-industrial man also affected his environment and caused important changes to his environment. With particular references mostly drawn from among the Igbomina-a sub-group of the Yoruba stock, evidences reveal that there is much to be found within indigenous knowledge system as it provides the key to their quest to free themselves in several ways from the mental slavery. The values of their crafts and skills became effective and appropriate in dealing with their peculiar problems since it originated from within their socio-cultural environment. Like their African counterparts, the Igbomina retained their capacity for independent development with the basic necessities of life (food, housing, clothing, security and health care) provided by their own efforts and natural resources. Later, the incapacity was/is caused by two major factors, among others, namely, a mentality induced by colonialism of consumption rather than production as well as colonialist/imperialist exploitation. The present incapacity ever since, suggests that preparatory measures are necessary and the search for indigenous alternatives should be promoted.

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