

**EUROPEAN CONTACT AND TECHNOLOGICAL  
STAGNATION IN WEST AFRICA UP TO THE  
20<sup>TH</sup> CENTURY**

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**ABSTRACT**

*Africa houses most of the world's oldest record of human technological achievements: the oldest stone tools in the world have been found in Eastern Africa, and later evidence for tool production by homini ancestors has been found across Sub-Saharan Africa. The history of science and technology in Africa has since then, however, received relatively little attention using comparative standards. This paper interrogates West Africa's relationship with the industrial West from the period of the first contact through slave trade with a view to establishing that Africa's relationship with Europe has been based on her exploitation. It also argues that Europe's technological advancement undermines technological development in West Africa. This work outlines the nature of the development that African kingdoms and empires had achieved in clothing, textile, metallurgy, architecture, education, astronomy among others before contact with the Europeans especially from the 15<sup>th</sup> century. The paper argues that the slave trade and colonization in the late 19<sup>th</sup> century undermined industrial development in Africa and further entrenched European economic dominance in the continent. The paper reveals that West Africa's economic relations*



*with Europe from the 15<sup>th</sup> century up to the 20<sup>th</sup> century was characterized by the dumping of cheap and inferior European manufactured goods in the region. And finally, the paper submits that West Africa's relationship with Europe since independence has been characterized by neocolonialism and underdevelopment which contribute to economic and technological stagnation in the continent.*

**Keywords:** Development, Technology, European contact, Growth, Indigenous industries

## **INTRODUCTION**

Africa houses most of the world's oldest record of human technological achievements: the oldest stone tools in the world have been found in Eastern Africa, and later evidence for tool production by homini ancestors has been found across Sub-Saharan Africa. The history of science and technology in Africa has since then, however, received relatively little attention using comparative standards. Walter Rodney has argued that the current state of Africa's industrial stagnation or backwardness when compared to Europe, America and Asia has been arrived at, not by independent evolutionary factors in Africa, America, Europe and Asia, but through centuries of European exploitation. (Rodney, 2017) This is to say that Africa's relationship with the industrial West from the period of the first contact through slave trade has been and continues to be even centuries after based on the exploitation of the former and the advancement of the latter. It is interesting to underscore that despite the volume of resources that Africa is endowed with, the continent has and still continues to be a periphery to Europe in terms of technological development. The present state of Africa's technological development continues to interest Africanist scholars with a view to asserting the critical factors that led to the African continent's woes with regards of her efforts at catching up with the global north in terms of technology and development. Despite serious soul-searching by African



scholars to address the factors responsible for Africa's technological stagnation, most scholars overlook the historical circumstances that account for Africa's current state of economic and technological development.

### **AFRICA BEFORE EUROPEAN CONTACT**

Before the British came into relations with the peoples of Africa, Africans were a developed people, having indigenous institutions and ideas of government. (Hayford, 1922) Most African nations spent over five centuries in the parasitic relationship with the Europeans from the 15<sup>th</sup> century up till the 20<sup>th</sup> century when all became independent. Some salient questions need be answered, viz: Would Africa's economic development have been different without the European contact? Was contact with Europeans predatory? Would Africa have been richer than it is today without having contact with the Europeans? Would there have been a greater technological advancement in Africa had they not come in contact with Europe when it did? It should be noted that history does not bother itself with what should have happened which never occurred, but it does concern itself with the study of factual events that concerns man and his physical environment. The above questions may suggest a departure from that basic historical doctrine, the authors intend to tread cautiously as those questions shall enable an objective interrogation of the topic under discuss. It is in a bid to answer these questions that we shall examine the extent to which Africa's economic and technological advancement had gotten before they were truncated and stagnated by contact with Europe.

### **CLOTHING AND TEXTILE**

According to Finch and Putman, a history of textiles is virtually a history of civilization for man all over the world from the earliest times that humans have made textiles. (Finch, K. and Putman, C. 1977) All over Africa beginning from the Nile Valley, Egyptians wore linen from the flax plant and used looms as early as 400BCE.



(Way back machine, 2010) Nubians mainly wore cotton, beaded leather and linen. In Ethiopia, shenma, shama and kuta are all cotton-based fibres used for making clothing. (Khaminwa, M. 2010) Three types of looms are used in Africa: the double heddle loom for narrow strips of cloth, the single heddle loom for wider spans of cloth, and the ground or pit loom. The double heddle loom and single heddle loom are suggested by some to be of African origin. The ground or pit loom is used in the Horn of Africa, Madagascar and North Africa and is of Middle Eastern origin. (Clarke, D. 2003) Some of the oldest surviving African textiles were discovered at the archaeological site of kissi in Northern Burkina Faso. They are made of wool or fine animal hair in a weft-faced plain weave pattern. (Magnavita, 2008) Fragments of textiles have also survived from the thirteenth century Benin Empire in Nigeria. (Christopher, 1989.) In the Sahel, cotton is widely used in making boubou and kaftan for men and women respectively. By the 12<sup>th</sup> century, the so-called Moroccan leather, which was known to have originated from the Hausa area of Nigeria, was supplied to the Mediterranean markets and arrived the shores of Europe. (Cyril and Houston, 2003) According to Walter Rodney, Africa's demand for cloth was increasing rapidly in the 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> centuries, so that there was no market for all cloths produced locally. He argues that European cloth industry was able to copy fashionable Indian and African patterns. (Rodney, 2017) Rodney's argues that one way of judging the level of development in Africa five centuries ago is through the quality of products, and not just on the scale, as Africa could not breakthrough in large scale or industrial production. This implies that the cotton that the looms produced were very small in quantity for subsistence purposes. The point that is stressed here is that under communalism which most African societies practised, each household met its own needs by producing its own clothes, mats, and other domestic products. Economic needs were met by specialization and localization of industry. Cotton fibre had to be ginned, carded and spun into yarn before being woven. The yarn or woven cloth had to be dyed and that was a complex process.



There was a time when all these stages would be performed by a single family, as in Yorubaland. (Rodney, 2017)

European industries have been intensively studied, and it is generally recognized that in addition to new machinery (a most decisive factor in growth of industry) was the changeover from domestic production to the factory system, with the guild marking an intermediary stage. (Rodney, 2017) In Idoma (Nigeria), the people were predominantly peasant farmers and not everyone took part in fulltime farming and was associated with hunting. Some people were manufacturers who made various items among which was cloths (textiles) dyes. Cloth weaving could only be done by specialists, e.g. weavers in Agatu and Onyadege. In the 1890s, it was discovered at the Oyo market that the local cloths were slightly more expensive than the imported and were more durable as well. (Isichei, 1983) It was equally observed that the products of local weavers form a strong and durable cloth, much dearer than the European cloth brought into Idoma, and of course only within the reach of the wealthy individuals. This form of production continued until the industrial revolution started in Europe and the massive importation of European materials into African markets began, and this consequently saw the de-industrialization of the African textile industry. Thus, stagnating the already developed textile industry that lacked competitive power in the market because of the cheap European alternatives.

### **METTALURGY**

Most of Sub-Saharan Africa moved from the Stone Age to the Iron Age. The Iron Age and the Bronze Age occurred simultaneously. The earliest dating of iron in Sub-Saharan Africa is 2500 BCE at Egaro, west of Termit, making it contemporary with iron smelting in the Middle East. (Unesco. 2007) Iron used in smelting and forging for tools appeared in West Africa by 1200BCE, making it one of the first places for the birth of the Iron Age. (Alpern, 2005) By the 19<sup>th</sup> Century, African methods of extracting iron were



employed in Brazil, until more advanced methods were instituted. (Davidson, 1994.) Besides being masters of iron, Africans were masters of brass and bronze. Ife produced life-like statues in brass, an artistic tradition beginning in the 13<sup>th</sup> century. They also produced portraits and reliefs in metal using the lost wax process. (Davidson, 1994.) Benin was also a manufacturer of glass and glass beads. (Oliver and Fagan, 1975) In West Africa several centres of iron production using natural draft furnaces emerged from the early second millennium AD. Iron production in Banjeli and Bassar, for example, in Togo reached up to 80,000 cubic metres (which is higher than the production at Meroe) and analyses indicate them to be made of low carbon steels. (Shedreck, 2015.) In Burkina Faso, the Korsimorso district reached up to 169,900 cubic metres. In the Dogon region, the sub region of Fiko has about 300,000 cubic metres of slag produced. (Killick, 2015) Brass barrel blunderbuss are said to have been produced in some areas of the Gold Coast in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Various accounts indicate that Asante blacksmiths were not only able to repair firearms, but that barrels, locks and stocks were on occasions remade. (Kea, 1971) The Awka blacksmiths in Eastern Nigeria were famous and specialists in iron works, copper, brass and bronze, and had developed a flourishing system before the European contact.

From the above one would have no difficulty agreeing that before the European contact, the overwhelming dominant activity in Africa was agriculture. In all the agricultural communities, people observed the peculiarities of their own environment and tried to find techniques of dealing with it. That is, the topography, soil nature and natural endowments determined the strength of a people which could be referred to as the principle of comparative advantage. Advanced methods were used in some areas. The most important technological advancement underlying African agricultural development was the introduction of iron tools like the axe and the hoe, replacing the wooden tools. It was on the basis of



the iron tools that new skills were elaborately used in agriculture as well as in other spheres of economic activities. (Rodney, 2017).

### **ARCHITECTURE**

In architecture, Africa made giant strides before the arrival of the Europeans. The walls of Benin Empire are collectively the world's largest man-made structures and were semi-destroyed by the British in 1897. (Wester, 1998) Fred Pearce wrote in New Scientist:

*They extend for some 16,000 kilometres in all, a mosaic of more than 500 interconnected settlement boundaries. They cover 6500 square kilometers and were dug by the Edo people. In all, they are four times longer than the great walls of China, and consumed a hundred times more materials than the Great Pyramids of Cheops. They took an estimated 150 million hours of digging to construct, and are perhaps the largest single archeological phenomenon on the planet. (Pearce, F. 2003)*

Sungbo's Eredo is the second largest precolonial monument in Africa and it is believed to be larger than the Great Pyramids or Great Zimbabwe. Built by the Yoruba people in honour of one of their titled personages an aristocratic widow known as the Oloye Bilikisu Sungbo, it is made up of sprawling mud walls and the valleys that surrounded the town of Ijebu-Ode in Ogun State, Nigeria. (Stone, 2011) These were fortifying walls for defense during warfare.

### **ASTRONOMY**

Three types of calendars can be found in Africa: lunar, solar and Stellar. Most African calendars are a combination of the three. (Peek, and Yankah, 2004) There was the traditional Igbo Calendar. The calendar has 13 months in a year, (afo), 7 weeks in a month (onwa), and four days of Igbo markets days: (nkwo, eke, orie, afor)



in a week (izu) plus an extra day at the end of the year in the last month. (Onwuejeogwu, 1981) There was the Yoruba calendar (kojoda) used by the Yoruba and the Southern Benin. The calendar has a year beginning on the last moon of May or first moon of June of the Gregorian calendar. The New Year coincides with the Ifa festival. The traditional Yoruba week is four days dedicated to Orisa as follows: Day 1 is dedicated to Obatala, day 2 dedicated to Orunmila, day 3 dedicated to Ogun, and day 4 to Sango. To reconcile the Gregorian calendar, they as well measure the time in seven days a week, and four weeks a month. The four days calendar was dedicated to the orisas and the seven-day calendar for doing business. Time is measured in isheju (minutes), wakati (hours), ojo (days), ose (weeks), oshu (months). According to the calendar developed by Remi Niyi Alaran, the Gregorian calendar year 2015AD is the 10,057<sup>th</sup> year of the Yoruba records of time. (Yoruba Kojoda 10053) The coming of the European abruptly ended these dating systems.

### **EDUCATION**

Three philosophical schools in Mali existed during the country's golden age, from the 12<sup>th</sup> to the 16<sup>th</sup> centuries. University of Sankore, Sidi Yahya University and the Djinguereber University. By the end of Mansa Musa's reign in Mali, the Sankore University had been converted into a fully staffed university with the largest collections of books in Africa since the library of Alexandria. The Sankore University was capable of housing 25,000 students, and had one of the largest libraries in the world with between 400,000 and 700,000 manuscripts. (Said and Noel, 1975).

Timbuktu was a major centre of book copying, (Primak, 1998) religious groups, the sciences and the arts. Scholars and students from throughout the world came to study in its university. (Muslim Heritage 2003).





It should also be noted that Africa had indigenous education systems unlike the European conventional school system. For instance, the Igbo had their indigenous business school referred to as the apprenticeship system where young men and women were trained or mentored in trade or skills acquisition. (Paul, 2019).

### **AGRICULTURE**

On agriculture, Ehret Christopher suggests that African methods of cultivating rice introduced by enslaved Africans may have been used in North Carolina. This may have a factor in the prosperity of the North Carolina colony. (Ehret, 2002.) Yams were domesticated in 8000BC in West Africa. Between 7000 and 5000BC, pearl millet, gourds, water melons and beans also spread westward across the Southern Sahara. Between 6500 and 3500BC, knowledge of domesticated sorghum, castor beans and two species of gourd spread from Africa to Asia. Pearl millet, black eyed peas, water melon and okra later spread to the rest of the world. (Ehret, 2002.)

In the lack of more detailed historical and archaeological studies on chronology of terracing, intensive terrace farming is believed to have been practiced before the early 15<sup>th</sup> century in West Africa. (Widgren, 2009)

### **EUROPEAN CONTACT AND AFRICA**

The present state of technological stagnation and retardation in Africa has been numerously blamed more on external factors and less on internal factors. Some scholars are of the opinion that Africa's position could be blamed on the evil of exploitation through her extensive contact with Europe. For the purpose of this work, Africa's contact with Europe shall be discussed in two phases;

- i. Exploitation and Stagnation through Slave trade
- ii. Exploitation and stagnation through colonialism



## **AFRICA'S EXPLOITATION DURING THE ERA OF SLAVE TRADE**

According to Walter Rodney, to discuss African and European contact in the four centuries before colonialism simply implies a discourse on slave trade. (Rodney 2017) Before then, Africa and her peoples were free, however, they became captives the moment a formal contact was developed with the European powers. According to Inikori,

*The people of Africa today want to know what happened in the past that can explain the puzzle; (namely, the contemporary problem of underdevelopment in African societies and the extreme and the extreme vulnerability of their economies in a global economy context) most satisfactorily. This yearning of African peoples for convincing explanations are not an end in itself. The real end is a solution to the problems. It is believed that a satisfactory explanation is a requirement for an effective solution to the problem. We believe that the contemporary African problem had its root in the four hundred years of export demand of captives from the middle of the 15<sup>th</sup> century to the 19<sup>th</sup> century. The response of African societies to this external pressure gave rise to socio-economic and political structures and institutions that were not conducive to long-term economic development and competitiveness in the international economy. The situation was further worsened by the imposition of European colonial domination following the abolition of the export slave trade in the late 19<sup>th</sup> century. (Inikori, 1992).*

One may begin with the demographic impact of the European contact with Africa during the Atlantic slave trade. An important



question is how many slaves were exported out of Africa during the Transatlantic Slave Trade? In 1969, Professor Philip Curtin published his estimates as 5,247,334. (Philip, 1969) Professor Inikori came up with his own estimates. His estimates of the total number of slaves exported from Africa was 15,400,000 and 13,392,000 slaves were imported to the Americas (Inikori, 1992). This implies that about 2,008,000 died on transit to the Americas. It is important to stress, however, that what tropical Africa lost in terms of human resources, Europe and the New World gained in terms of increase in slave populations from about the second half of the 15<sup>th</sup> century up to the 19<sup>th</sup> century. It is argued for example, that some of the countries which presently harbour the largest concentration of black and African population in the world, except Nigeria are found in the New World. Among these are Brazil, the United States, Jamaica and other Caribbean countries. Nothing illustrates better the historical roots of African underdevelopment, particularly in agricultural production and manufacturing, from the era of the Atlantic slave trade up to the present period, than the fact of the vacation of the continent by no fewer than seven million able-bodied Africans who had been utilised as manpower for the development of Europe and the new world. (Hakeem, 2001) Walter Rodney sees slave trade as a basic factor in African underdevelopment. (Rodney, 2017) He noted that nothing suggests that there was any population increase in the continent's population over centuries of slavery. While other continents showed from the 15<sup>th</sup> century onwards the constant and sometimes spectacular natural increase, it is striking that same did not apply to Africa. (Rodney, 2017) His estimates below explain his stance with the figures in millions.

	<b>1650</b>	<b>1750</b>	<b>1850</b>	<b>1900</b>
<b>Africa</b>	100	100	100	120
<b>Europe</b>	103	144	274	423
<b>Asia</b>	257	437	656	857



None of the above figures may be precise, but there is a general consensus among researchers on the fact that Africa had a huge record of stagnation in this respect and there is no causative factor other than the trade in slaves. (Rodney, 2017) All over the continent, Africans were conscious that population was in their circumstances the most important factor of production. For example, in the 17<sup>th</sup> century, the Portuguese and the Dutch actually discouraged slave trade on the Gold Coast, for they recognized that it would be incompatible with gold trade. However, by the end of the century, gold had been discovered in Brazil, and the importance of gold supplies from Africa was lessened. Within the total Atlantic pattern, African slaves became more important than gold, and Brazilian gold was offered for African slaves at Dahomey and Accra. At that point, slave trade began undermining the Gold Coast economy and gradually weakened the gold trade. The dire need for slaves led to plunder and slave raiding of African communities. This plunder and kidnapping activity affected all branches of economic activity, and agriculture in particular. To achieve economic development, one essential condition that must be met is to make maximum use of the country's human and material resources. Usually, that demands peaceful conditions, but there have been times in Africa's history when social groups have grown stronger by raiding their neighbours for women, cattle, and goods, because they used the booty from the raids for the benefit of their own community. Slavery was not alien in Africa nor did it have the same disastrous effect like the Trans-Atlantic slave trade. Captives were shipped outside instead of being utilized within any given African community for producing and reproducing wealth. Slave trade prevented the remaining population from effectively engaging in agriculture and industry, and it employed professional slave hunters and warriors to destroy rather than to build. (Rodney, 2017)



## **TECHNOLOGICAL STAGNATION DURING COLONIALISM**

During colonialism, African economy and technology were either destroyed or subordinated. African connections with themselves were broken, and their economy became an extension of the colonizing powers, and so integrated them into the European capitalist economy. Colonialism confined Africa to the production of primary goods for export and kept them dependent on developed capitalist economies for finished goods, manufacture and technology. For instance, in Tangayinka, a few Sisal plantation capitalists were able to establish a rope making factory in 1932, but as soon as the product reached London, the outcry from British rope manufacturers was so great that the colonial office explicitly reasserted the principle that Africans must be confined to the production of raw materials. Walter Rodney observes that in the 15<sup>th</sup> century European technology was not totally superior to that of other parts of the world. European trading to Africa had to make use of Asian and African consumer goods, showing that European system of production was not totally superior. It is noteworthy that in the early centuries of trade, Europeans relied heavily on Indian cloths for resale elsewhere. Morocco, Mauritania, Senegambia, Ivory Coast, Benin, Yorubaland, and Loango were all exporters to other parts of Africa through European middlemen. Yet, by the time that Africa came in contact with Europe, it shifted concentration almost entirely on the export of raw materials and the importation of European manufactured goods. Put differently, African colonies provided raw materials for European industries and imported manufactured goods from the imperial powers, usually at a disadvantaged import position. The remarkable reversal is tied to technological advancement in Europe and technological stagnation in Africa owing to the very trade with Europe. African demand for cloth was increasing rapidly from the 15<sup>th</sup> century-the 17<sup>th</sup> century. So, it is safe to say that there was a market for all cloths produced locally as well as room for imports from Europe and Asia, even though they had unequal market



advantage given the fact that imported fabrics were cheaper than the locally produced ones. But, directed by an acquisitive capitalist class, European industry increased its capacity to produce on a large scale by harnessing the energies of the wind, water, and coal. European cloth industry was able to copy fashionable Indian and African patterns, and eventually replaced them through its capacity to produce on a mass scale (Rodney, 2017). Partly by establishing a stranglehold on the distribution of cloth around the shores of Africa and partly by swapping African products by importing cloths in bulk, European traders eventually succeeded in putting an end to the expansion of African cloth manufacture. The European trade was the direct block as it depopulated Africa of millions of youths and young adults who are the human agents of development. Those who remained in areas badly hit by slave capture were preoccupied with their freedom rather than with production because of the nature of the contacts with Europe, and that situation was not conducive for the continuation of technological advancements. The nature of advancement in the African continent then was either destructive or extractive; as slaves and raw materials were exported. There were instances of African rulers appreciating European technology and stating their preference for skills and not slave ships. For instance, Agaja Trudo of Dahomey sought to stop the trade in captives; he made an appeal to European craftsmen, and sent an ambassador to London for that purpose. Even the Asantehene Opoku Ware also asked Europeans to set up factories and distilleries in Asante, but got no response. Even in the early 19<sup>th</sup> century, one of the kings of Calabar as well requested for the establishment of sugar refineries. (Rodney, 2017) In the mining of minerals in Africa, Europeans exploited minerals with foreign capital, deliberately or systematically excluding Africans from benefitting from their countries' minerals. Legislations were made to keep Africans out of the mining process. Even when Africans had been working on the mines for ages, it became illegal for them to mine without license. Thus, colonialism which began with the Berlin Conference



of 1884-85 where Africa was parted and divided among the European nations like an orange would be divided amongst a group of persons, further deepened the already deteriorated African technological and agricultural situation.

The taste for imported goods in Africa also made some Africans to view locally made products inferior. This had negative impact on the development of indigenous industries because it became difficult for them to compete in the market with imported European goods that. The inability of Africans to massively produce their goods to meet local demands and create surplus for export created enormous constraints for industrial and technological growth and development in Africa. Worst still is the fact that Africans pride with importation of used clothes, electronics, and automobiles, to mention but a few from Europe. In fact, by the twentieth century, Africa had become a lucrative market for European entrepreneurs who flooded West Africa with their goods since there exist a lucrative market for the manufactured goods.

### **CONCLUSION**

The slave trade lasted for over four centuries in Africa, and the singular reason it was abolished was not Europe's realization of how inhuman it was or its devastating effects to Africa, but because of the industrial revolution which began in Britain and spread to other parts of Europe, and as such they needed raw materials to feed the growing industries and markets for the manufactured goods; the purpose of which Africa conveniently served.

Africa's greatest value to Europe at the beginning of the imperialist era was a source of raw materials like palm products, cotton, and rubber-one of the most important factors was unequal trade with Africa. The gap that had been created during the pre-colonial trade in slaves gave Europe the power to impose political domination



over Africa. Hence, the hitherto stagnated African technology was finally paralyzed to the point that all she could manufacture had been consciously killed by the core countries of Europe.

Colonialism ended few decades ago but neocolonialism became a viable replacement of the system to the west and continues to entrench Africa's subservient relationship with the industrialized West. Africa served as the periphery region to the core and she is presently the periphery of the periphery as she has been totally incapacitated in terms of technological and economic developments. It is evident that she depends on Europe, America and Asia for virtually everything she uses.

Thus, Africa was stagnated in terms of technological development and her material and human resources have continuously been exploited by European nations at the detriment of the African people and more so now through the renewed version known as the brain drain through emigration of African labour force professionals outside Africa in search of greener pastures.

One could then safely say that slave trade evacuated Africa's able-bodied and innovative labour force, colonialism evacuated Africa's resources and today neo-colonialism has continued the human, economic and ideological domination and exploitation process.





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