CULTURE, ART AND TECHNOLOGY: AN INTEGRAL CONNECTION

Chizimuzo Chidinma Chukwuma-Ali
Department of Fine and Applied Arts
Federal Polytechnic, Okoh
Anambra State
chinenyeosi8@gmail.com

Abstract

This paper dealt with culture, art and technology as integrally connected and a major impetus for the emergence of modern civilisations. The paper posited that every human group, no matter where they are located, have cultural traits that mark them out; imbedded in that culture is the art which is the physical manifestation of concepts of that culture. The paper went on to show that Africa as represented by the Igbo of Nigeria have a very rich cultural and artistic heritage. The same way the Japanese and other Asian and Western societies have. However, the problem is that, while these Asian and Western societies have built civilisations thriving on this rich cultural heritage, African societies still lag behind. Adopting approaches that are historical and contextual, the paper concludes that modernity as an unending progress toward the fulfillment of human needs through technological advancement. The West have made enormous technical advances on the basis of this understanding of reality. Africa, particularly the Igbo of Nigeria must strive to push themselves up on the ladder of development leveraging on their very rich cultural and artistic heritage.

Introduction

Up till recent history, most studies of arts, particularly, traditional African arts, were treated as part of a larger study in the form of historical surveys of African arts and culture. That societies including Africa, or to be more specific, the Igbo possesses their own traditional art forms and styles has been established even though there are several elements of a shared art heritage, that are identifiable with such important concepts as motivation, purposes and functions as well as visual and aesthetic interests in culture.

Human expression finds a way through varied forms of art and cultural activities. The art and culture of a people represent the vividness of their lifestyle coupled with a glorious history built on their past. One of the major aspects of Nigerian art and culture lies in the fact that they draw their inspiration from the

rural traditional heritage of the people. Studies have shown that indigenous groups have their own knowledge (African knowledge), an accumulation of information, and practices from which the learners can draw to add further learning (see Jegede, 1995; and Ogawa, 1995). Okunamiri (2008:174) agrees that "African knowledge draws from the traditional and cultural beliefs, taboos, superstitions, customs and tradition of the society".

Also, one essential companion of man from his earliest days of existential habitation on earth is the tool which has helped him to secure and preserve his existence in so many respects. This may be why anthropologists, sociologists and other writers of similar ilk have characterised the various epochs of history with the prevalent instruments that man used at such given times. For example, the epochs have been labelled with such names as - the Stone Age, the Bronze Age, Age of Industrial Revolution and the Information Age. Highlighting this is important because the survival and ever-increasing efficiency of the human being demonstrates how important or essential these tools which are the products of his crafts have been.

This paper is an attempt to show that man's survival and greater efficiency have been made possible through the integral connection between and among the three elements of culture, arts and technology. All these three elements are so intertwined that they have worked together to define who man really is at every given time in history. The West seemed have absorbed this fully while the African still lags behind.

Culture and the People
Culture could be said to represents the configuration of learned behaviour and the results of behaviour whose component elements are shared and transmitted by the members of a particular society. As there can be no individual without character, there can be no society without culture. Any such society will also lack identity. For Ubom (1987: 126), culture embraces a wide range of human practices. Culture originated in the process of man's attempt to live and survive in environment. In this regard, man has left behind traces of his achievements. Man has the ability to create his own culture, he also has the responsibility to transmit it to the succeeding generations.

The issue of socio-cultural, religious and political lives of peoples has fascinated scholars all through human history. It is widely believed that for every people, no matter where they are either in terms of geography or in terms of their place

in the history of development, they surely have some stories (myths) about their origin, their belief system and way of life – culture. Omenukor (2008: 158) writes, "cultural values are intimately related to the sense of identity; challenges to one's culture thus become challenges to the integrity of the one as a person and to the values that are closest to his/her heart."

For most peoples, especially those of African communities, these myths, belief systems and ways of life have been altered, eroded or misrepresented in varying degrees owing to a number of factors, namely, misrepresentation by ethnocentric writers and forces who happen to be the first to have access to the press; illiteracy and late arrival of education and civilization; one-sided and culturally destructive western education and the cultural erosion by western civilization; not forgetting the debilitating effects of colonialism and neo-colonialism.

Culture helps to define a general way of life for an individual and people. It seeks to inculcate in every individual positive habits, moral values and skills that will enable him control and direct his behaviour. Acording to Makhan (2001), culture helps to determine individual's worldview, their life experience and the way they learn. Culture gives an individual his identity. It has been positively noted that some cultural beliefs and practices actually have some scientific relevance to safety and survival in some instances. Culture integrates systematizes and interprets the values of society as it changes them with meaning and purposes. It relates, coordinates and stores the social heritage and values of the people and acts as a guide to the various components of life.

There is no doubt that there are wide ranges of perspectives from which culture has been and could be seen. It includes codes of manners, dressing, language, religion, rituals, norms of behaviour, art, morality and law. Thus, various definitions of culture reflect different theories for understanding or for evaluating human activity. African and African societies such as *Ndigbo* have very rich cultures. They have strong traditions regarding every aspect of life. These cultural elements are what have held the societies together prior to the coming of the Europeans and subsequently the advent of westernization.

Anyanwu, (2006:2), writes that culture is perceived as a way of life, encompassing all human efforts and achievements and the attitudes or behaviour at work. Culture is complex in its use of arts, symbols, rituals and story. Art and symbol are products that visualized and objectify aspects of a culture and no one image in human art is ever entirely explicable in terms of that

representation and the limited meaning of that one image. It is art which give culture its physical representation.

What is (Visual) Art?

Arts in the form of visual arts are art forms such as painting, drawing, printmaking, sculpture, ceramics, photography, video, filmmaking, design, crafts, and architecture. The isolation of the art as visual is necessary in order to show that many other forms of art, although artistic disciplines such as performing arts, conceptual art, textile arts also involve aspects of visual arts as well as arts of other types. There are also such other disciplines as applied arts such as industrial design, graphic design, fashion design, interior design and decorative art, in a number of perspectives, these are all kinds of the visual arts.

Art can also be classified in terms of their purpose. In this respect, Western and African art are different. The European or Western conception of art is that of art for art sake. This means that in the West, art is practiced for aesthetic reasons only, especially for appreciation, beautification, among others. On the other hand, for most of African art, in particular Igbo art, there is a lot of emphasis on the usefulness of art forms as agents of social control. Igbo art is discerned as a spiritual and cultural phenomenon, which points to the fact that art is a vehicle which transforms other aspects of African culture. Aniakor (1984) agrees when he writes "when we talk of African art, we talk of function or utility because like language, it is one of the most useful and effective tools for shaping, explaining and defining the artistic and cultural consciousness of the people. It is a tool of survival in the African world as a form of communication whose language is as vital in content as it is visually affecting in terms of its designs and stylistics.

Igbo traditional view of art was a view which was identified with other aspects of the Igbo world. It is not an objective or analytical view of art. It is a view that depicts the realities of art image being the link. The artistic view did not spring from art itself, but from the totality of religio-social significance of the art functioning in the group mind. Thus, the traditional view of art was an internal knowledge, and a spiritual participation, rather than a result of objective analysis. However, as a result of western contact, those most keen as well as most influenced by the works of traditional/African art adopted their own view and centred it mainly on the features of African traditional sculpture, particularly, the images from which has become an enviable revitalizing primitiveness sought after by the highly developed civilizations. Traditional Igbo art is so identified with socio-religious concept that it spontaneously exercises the fullest measure of its viewpoint through recreative activities.

A view on Igbo traditional art and culture gives a glimpse of the prevalent stone carvings, potteries, wood carvings, ulli wall art among others. Igbo-Ukwu stands tall among the ancient and traditional works of Igbo art in particular and Nigerian art in general. Wood carvers (*ndi omenka*) have flourished among *Ndigbo* since time immemorial, making figures for shrines, masks and other cult objects. Although, Jean (1973) argued that wood is one of the proudest and most austere of arts, *Ndigbo* in choosing different media to express certain purposes or phenomena, use wood and other transient materials, specifically for certain cult or spiritual objects to be able to effect change when necessary.

Traditional Igbo art served social and religious functions; dance was used to teach or to fulfill some ritualistic goals. Sculptural objects were used in blessing, in healing rituals or to ward off bad luck. The Igbo produce a wide variety of art including traditional figures, statuettes made of wood, raffia, masks, artifacts and textiles, plus works in metals such as bronze. Artworks form the Igbo have been found from as early as 8th - 9th century with the bronze artifacts found at Igbo Ukwu. These primitive art forms were the basis for the development of the tools which helped man to pursue his survival in the very inclement conditions of early man.

Igbo culture (*omenala*) and their Arts are often found together. They are the customs, practices and traditions of the Igbo people of Southeastern Nigeria. It comprises archaic practices as well as new concepts added into the Igbo culture either by evolution or by outside influence. Ejiofor (1984: 51) avers that:

> All cultures are characterized by certain features which make it dangerous for people to be culture blind, that is blind to the need to keep re-examining their culture from time to time, blindness which leads to rejecting, as a matter of principles, the cultures of others with which they come into contact.

These customs and traditions include the Igbo people's visual art, music and dance forms as well as their attire, cousine and language dialects. *Uli* body art was also used to decorate both men and women in the form of lines forming patterns and shapes on the body.

Art forms are the symbols that provided direction for man. This symbols are both the practice of social actors and the context that gives such practices meaning. In the same vein, Cohen (1985: p. 10), opined that symbolic glass

allows actors to use common symbols to communicate and to understand each other while still imbuing these symbols with personal significance and meaning. Clifford (1981: p.62) and Anthony (1994: p.12) supported this view, when they state that symbols provide the cultural thought members of the society rely on to frame their thoughts and expressions in intelligible terms. In other words, symbols make culture possible, reproducible and readable. Runkle (2000: p.29) agrees w when he stated that symbols – sculptural symbols in particular, adequately express the physical components of culture, which are highly indispensable in the human society. Culture includes mode of dressing, language, religion, rituals, norms of behaviour and even art and the social norms and preferences of the society. Thus, it is not out of place to argue here that culture and art manifesting in tool-making are the foundation of technology that has brought so much efficiency to man.

Nature and Technology
Aristotle, the great Greek philosopher, conceived everything that is to be either by nature or by art. He also maintained that there are four causes for everything that exists, either natural or by art: the material cause, the formal cause, the efficient cause and the final cause. Take an example with a bronze statue. It is made out of bronze (material cause), having its particular form (formal cause) it is made by the artist's action with the help of tools (the efficient cause) and its servers for religious worship (final cause).

From a brief analysis of this Aristotelian conception of being and the four causes, one can say technology relates to things that have their causes (the formal, the efficient and the final cause) in the artisan that produces them. Taking a further example, a house is a natural end which requires technology to complete the complex operations necessary for its completion into a habitation by man. Aristotle in the *Nichomachean Ethics* (2018 as retrieved), writes:

> The usual conception of *techne* is that it is the transformation or manipulation of nature (the existing physical (material) and biological environments) to satisfy human needs and goals. *Techne* is thus conceived to be a specific form of purposeful (teleological) action, that may result in a 'technological artefact': a human-made object or state of affairs that fulfils a utilitarian or practical function. The transformation of nature may or may not itself be mediated by artifacts, which are then called tools. Therefore some things cannot exist apart from someone who has the art of making them, while others can exist without such present.

Looking at the above, one made conclude that technology is exclusively a human creation..However, on closer analysis one can see that natural processes like the action of a spider can and even birds create their own habitations. This leaves people wondering whether such manifestation is by intelligence or other faculties. All these conceptions of technology raises many questions. The question is: is this distinction between the natural and the artificial necessary at all?

The distinction makes sense only if the human race is considered in some respect not to be part of nature. As an integral part of nature (and as a result of natural evolution as view scientifically), a human being cannot interfere with nature. The distinction between the natural and the artificial is commonly taken to be identical to the distinction between the spontaneous and the intentional; these notions themselves, however, raise all kinds of philosophical problems which we are not going to concern ourselves with in this work. One thing that is sure is that in a case in where the product of technology does not exist naturally, it is made by following some natural procedures. We can interpret this by saying that for aircraft to fly it must necessarily share some characteristics of birds. Hence, craftsmen must necessarily imitate nature or assist in completing natural evolution without inventing new forms. Hence the technician must consider the intents of nature in technological process.

It is also worthy to note here that in natural beings, that is, the beings that exist by nature, the distinction between existence and essence is not always obvious. The thing and its essence emerge together and exist together. The essence does not seem to have a separate existence. The birds emerge along with what makes it a bird: *that it is* and *what it is* "happen," in a sense, simultaneously. One can later construct a concept of the essence of the bird, but this is one's doing, not something essential to nature as it is to artifacts. Indeed, the very idea of an essence of the things of nature is man's construction. It lies at the basis of science, that is, the knowledge of things. Unlike the knowledge that is active in technology, which is essential to the objects, the essences of which it defines, science knowledge of nature, appears to be a purely human doing to which nature itself would be indifferent.

Making it clear at this juncture, technology still maintains the model of *being* in this modern conception as inherited from the Greeks. This was particularly clear in the 18th century Enlightenment, when philosophers and scientists challenged

the medieval successors to Greek science with the new mechanistic world view of Galileo and Newton. These thinkers explored the machinery of being. They identified the workings of the universe with a clock wise mechanism. Though strange though it may seem, the underlying structure of Greek ontology survived this inquest. Today, their philosophies still presents templates for present day research. The modern context of technology does not realize objective essences inscribed in the nature of the universe, as does technology as conceived by the Greeks. It now appears as purely instrumental, as value free. It does not respond to inherent purposes, but is merely a means of serving subjective goals one chooses as one wishes.

Culture and Technology
Most modern civilizations of the world have been built on the ruins of ancient societies. These ancient societies were built on strong cultural practices leading to the development very functional art forms that helped to define who the people were. It must be admitted that there is much to be learned from the rich empirical diversity of ancient societies and the civilisations that have grown out of them; in other words, there is a rich connection between culture and technological development. This is especially the case, somewhat paradoxically, when we examine instances of the transfer of technology between regions or cultures. Even the idea of a technological "dialogue" between different cultures can still carry the assumption that there exists a fundamental, identifiable and more-or-less essential core to the culture(s) under examination. Recently, anthropologists and social theorists have preferred to jettison such essentialist conceptions of culture, and to prefer performative ones. Here, there is no stable core to a given culture. For example its essential features – that is constant across time and then that might "change" under one set of circumstances or another.

A performative view postulates that cultures are continually re-created and history of technology performed, so that changes can be small and incremental and/or large and dramatic. Performative conceptions of culture are also helpful in identifying cultural hybrids, where cultural productions take up and incorporate novel elements which may have their origins in "foreign" borrowings but also with "domestic" innovations. On the surface, Japan might seem a reasonable candidate for an essentialist understanding, owing to its geographic separation and strong cultural identity. What we might today consider to be "quintessentially Japanese" came rather late to Japan. As David Wittner, cited in Kyrre (2009: p.10-15) shows, Japan for many centuries received transfers and/or engaged in technological dialogue with China and Korea, the

sources of wet-field agriculture, of the basic techniques of working bronze and iron, as well as of weaving, silk, paper and more. Wittner suggests that, beginning in the eighth century, Japanese woodworking, printing, metalworking and other crafts diverged from Chinese practices.

In his essay, Wittner rightly stresses the unprecedented mechanical complexity of the mechanical clock, and perceptively suggests that its mastery by Japanese artisans forms an important resource for Japan's later industrial prowess with mechanized reeling machines and looms. It also should be emphasized that Japanese artisans invented an entirely distinctive type of clock, which married the mechanical regularity of its interior clockwork mechanism with several ingenious schemes for relating this mechanically uniform time to the seasonally varying hours that typified Japanese concepts of time. There were six equal units of Japanese time between local sunrise and sunset, and also six units between local sunset and sunrise, the length of which then varied by the season. To devise clocks, including automatic bell-striking ones, that would vary the effective length of the hour seems a compelling instance of a thoroughly "hybrid" technology, and certainly not merely an adaptation or transfer of a Western one. Japan persisted with its distinctive, non-Western time-keeping system until 1873, when during the modernization of the Meiji era (1868–1912) the country converted Thomas J. Misato a Western calendar and Western time practices amid a great number of other Western-inspired institutional changes. Indeed, it may be that the development of "Japanese" identity was a cultural response to the coming of modernity (see Li-Hua, 2009).

The technological and cultural variability one confronts in examining China and Islam is even much greater. As Thomas Glick points out, the "Islamic technology" he surveys is really the technological and scientific knowledge characteristic of the classic Islamic Arab civilization. At its peak in the eighth century, and continuing until 1492, the political and cultural influences of Islamic Arabs extended through North Africa and into present-day Spain. This is why one finds Islamic technology in eastern Spain in the form of so-called Persian-style qanat irrigation techniques as well as water raising noria. From the thirteenth century, gunpowder weapons, too, were subject to a wide-ranging geographical transfer process as the Mongols transported this Chinese technology westward with devastating effects (see Li-Hua, 2009).

Glick appropriately situates his discussion of Islamic technology in the context of wider continent-scale flows of knowledge and techniques, including the

movement westward of the Indian style of agriculture (involving a "distinctive roster" of citrus fruits, rice, sugar cane and cotton) and the diffusion to the Islamic world of Greek astronomy and Indian astronomical tables and instruments.[40] One culturally distinctive set of practices involved the computation of special tables to identify the direction of Mecca as well as accurate timekeeping to mark out the five daily prayer times. Yet, as Glick and others have suggested, "Islamic" technology may also be more of a "hybrid" than a brief overview is able to convey. The specific forms of irrigation in medieval Valencia, for instance, may reflect North African influences and models as much as Arab ones. Compared with the essays on Japan and Islam, Francesca Bray's essay on Chinese technology is certainly less affected by any sort of essentialist assumptions about the core of China's technology or culture (Glick, 1979). As an anthropologist herself, Bray offers an essay that at once is close to Chinese assessments of technology and situates itself squarely in the context of historiographic debates on China. She is asking the questions "What do we know about China?," "What do the Chinese know about China?" and "How have the tensions and competitions of the Cold War influenced how we conceptualize China?" One consequence of the political climate of the Cold War, with its long-standing obsession with understanding and conceptualizing the supposedly technology-driven process of industrialization, was the framing and persistence of the "Needham question."

If, like has been learnt from other civilizations in the West and in Asia, technological advancement is clearly traced to rich cultural antecedents, the question remains as to why Africa, or in particular, Nigeria which is inhabited by peoples like the Igbo who have very rich cultural backgrounds cannot leverage on such rich cultural backgrounds to advance in technology.

Conclusion
In the 19th century it became commonplace to view modernity as an unending progress toward the fulfillment of human needs through technological advancement. It was this notion that captured the imagination of the Japanese in the Meiji era and led to the modernization of Japanese society in the 20th century that made them to embrace western technology and the Chinese followed suit later. Some of these technologies were of course said to be stolen from the Western world and the progress that emanated continues to challenge humanity to make further progress.

From the analysis so far, it can be said that technology in this scheme encounters nature as raw materials, not as a world that emerges out of itself, but rather as stuff awaiting transformation into whatever we desire and or for what purpose. This world is understood mechanistically not teleological. It is there to be controlled and used without any inner purpose. The West has made enormous technical advances on the basis of this understanding of reality. Nothing restrains the African in her exploitation of the world. Everything is exposed to an analytic intelligence that decomposes it into usable parts. Their means have become ever more efficient and powerful. Africa, particularly the Igbo of Nigeria must strive to push themselves up on the ladder of development leveraging on their very rich cultural and artistic heritage.

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