

RE-THINKING THE RELEVANCE OF ANTHROPOLOGY TO ART EDUCATION IN NIGERIA IN THE TWENTY-FIRST CENTURY: THE PLACE OF DIGITAL TECHNOLOGIES

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Abstract

The twenty-first century has brought significant changes in how society thinks about art, culture, and education. As the world becomes increasingly interconnected, the boundaries between art, culture, and anthropology are blurring. This paper explores the relevance of anthropological art education in the twenty-first century. It reviews Nigerian anthropological arts, the current state of modern technology, and its influence on art education in Nigeria. The paper reveals that technological facilities have successfully discovered and preserved anthropological relics, and can also address numerous challenges facing scholars in the field of arts. The paper concludes that digital technologies will help solve challenges facing art education in Nigeria. It recommends that scholars in the field of arts embrace the use of technologies in the twenty-first century.

Keywords: Anthropology, Art Education, Digital technology.

Introduction

The intersection of anthropology and art education has been a topic of discussion for years. However, the rapid changes brought about by globalization, technological advancements and shift in cultural landscape have necessitated a re-examination of the relevance of anthropology to art education in the twenty-first century. The 'term' anthropology as a discipline has been examined by various scholars; Henry (2013) therefore refers to anthropology as the study of human being which seeks to find out information on human world, skill of observation, enquiries, how the humans understand the world. Montague (2014) views anthropology as the study of human being with respect to archaeological, biological, physiological environment. Isaac (2020) sees anthropology as the science of humans. The common aims of which are to describe human beings and delves into the basis of the biological and cultural characteristics of the populations among which they were distributed and to emphasize, through time, the differences and variations of these populations. Archeologists do the work of digging, looking for new sites, exploring and surveying overtime. At a very tender age an archeologist sought to know more about the people who produced treasures of the ancient times found and how they

were made. Archeology has different branches of discipline. Out of these branches, historical archaeology tends to make inquiry into what the ancient world of a certain people looked like while keeping the written records. However, Henry (2013), Toth (2016) and Isaac (2020) identified various branches of anthropology as follows: physical anthropology, cultural anthropology, societal anthropology, political anthropology and medical anthropology.

Physical anthropology is the branch of anthropology that delves into biology and socio evolution of humanity. It is the study of the human body such as genetics, anatomy, the skeleton, adaptation to diseases, adaptations to the environment, growth, nutrition, human origins and evolution, human variation, primates, and more. Isaac (2020) opines that the branches that study the social and cultural constructions of human groups are variously recognized as belonging to cultural anthropology (or ethnology), social anthropology, linguistic anthropology, and psychological anthropology. Macat (2018) asserts that anthropology examines the effects of the past on the contemporary world. That is, making research into events that occurred as far as thousand years past. It tries to look into the human world.

Cultural anthropology; this entails study by scholars of the 19th century of customs and beliefs of a group of people in a society in relation to their past. Their mode of dressing, the type of food they eat, their relationship within themselves and their neighbors, including people of other extract, reasons behind the laws and taboos and laws. The knowledge of cultural anthropology is also useful in art education because it will enable the student to have indebt knowledge of the Nigeria culture (Macat, 2018). Societal anthropology; Scholars of the 20th century focused more on ethnography, the intensive long term field work that builds up the society. It looks into what brought about different occupations in the society and tries to gather facts, about what originated the various existing employable jobs and why those who started them thought that they should be put in place by creating a functioning society. This will provide opportunity for Arts Students to learn issues about their society through various ethnographical discoveries (Henry, 2013).

On the other ways round political anthropology looks into the assumptions of global politics. It looks into how governance started within a society or a group of people. It looks into the considerations of why politics has been a resort to building and holding power to govern. Medical anthropology; this examines the health issues of man as in the reactions of medicines in the body. It examines the various ways of healing before hospital and various drugs came into being such as herbs and so on. Others include feminist anthropology, historical anthropology and so on. Today, anthropologies still seek new ways to examine cultures (Macat, 2018).

However, art education has to do with the teaching and learning of arts in schools. In Nigeria, Art Education is offered as a course of study in Fine and Applied Arts and related field. Art Education is also offered in as a course in faculty of education in some colleges and universities. Students are exposed to various methods of teaching arts as a discipline at tertiary education level. Banjoko (2009) enlightens that Art Education involved the interaction between students and art teacher, who have been trained as certified to teach as a professional art teacher and certified for the same purpose. This could be at primary, secondary and tertiary education level. The teaching and learning of arts has to do with the interaction between the teacher and the students. Enamhe (2013) opines that Art education encompasses all aspects of visual literacy and most of the theatrical arts are inclusive. Different nomenclatures are used to describe the subject, at different level of education for the sake of simplification identity or glorification of the contextual structure. For instance, at the primary school level, it is Creative Arts and Crafts, at the secondary level, it is Visual Arts, formerly known as Fine Arts and at Tertiary level of

Education, It is more broadly defined. The Polytechnic Ibadan used to have three departments on the discipline namely; Painting and Sculpture, Industrial Design and Graphics Printing, operated under the faculty of environmental studies. The Department of Fine Art was under the school of Art, Design and Printing. Fine art department is also operated under the faculty of environmental design in Ahmadu Bello University (ABU) Zaria. Department of Fine and Applied Arts is operated under the faculty of Arts. Department of Fine and Applied Arts is operated under the faculty of Environmental sciences (JAMB, 2024).

Whatever nomenclature employed at any level, Creative Art comprises of Theatre and Visual Arts. Sub-division of theatrical arts is performing, literary and linguistic arts while Visual Arts are divided into Fine and Applied Arts. These are further classified into two-dimensional and three dimension and Arts. History and Appreciation are grouped as Fine Art while Applied Art comprises of textile (two-dimensional) ceramics (three dimensional) metal design (3D). Each of the afore-mentioned has various branches such as Painting, sculpture, ceramics, graphics, textiles, drawing and Photography etc (Banjoko, 2009). Arts and sculptural traditions have existed in Nigeria, Africa, and beyond. Asobele (1992) opines that the presence of Christian missionaries and Western explorers in Nigeria spurred the beginning of art education in Nigeria. Aremu (2014) notes that archaeologists and anthropologists based their writings on information gathered in the field. However, the ethnic groups that make up Nigeria have engaged in cultural practices in various forms. Like most African societies, to early Nigerians, art is inseparable from their religion; art is seen as the agency through which their religion is expressed, carrying the essence of their religion.

Therefore this paper examines the following subheadings;

Art in Pre-Colonial Nigeria

Esie and Ikom Stone Sculptures

Nok Terracotta Culture

Wood Carvings, Igbo-Ukwu

Ife and Benin Bronze Traditions.

Art in Pre-Colonial Nigeria

Studies show that most ethnic group in Nigeria engaged in cultural practices in one form or the other. Like in most African societies, Nigerians art is inseparable from religion. Asobele (1992) asserts that Arts is seen as the medium through which religion expressions are conveyed to the practitioners for instance most of the wood carvings are seen as representatives of gods. Therefore, other traditional arts and crafts in pre-colonial era in Nigeria include the following:

Esie and Ikom Stone Sculptures:

Adepegba (1995) clarifies that Esie stone sculpture was said to be one of the ancient traditional sculpture discovered in Nigeria. The name Esie was named after the place where the artistic

stone sculpture was discovered. The tradition, origin and identity of the producers of the stone sculptures have remained unknown. Although, according to historical mythological and information from the immediate community. The ethnographers, anthropologists and archeologists have made concerted efforts in different directions in order to explain the Nigeria traditional art and crafts. According to Gillon (1995) the findings established the following facts; the Esie stone sculpture is a composition of about a thousand soapstone sculptures, depicting both human and zoomorphic features. The human figures represent people engaged in various human daily activities. The stone sculptures represent a cosmopolitan collection of different cultures with features such as sophisticated hair styles, dresses, tribal marks, necklaces and bracelets with multiple cultural traits that connects them with different ethnic groups surrounding the area. The Esie stone works are also recognized as the largest collection of stone carving in Africa (Banjoko, 2009).

Adepegba (1995) says that Ikom monoliths of Cross River state, was said to be in existence around 200AD according to radio carbon dating. The stone sculpture is regarded as the second largest collection of a handful stone sculptural tradition in Nigeria. The stone figures are found in an area inhabited by the Ekoi people along the bank of Cross River. The Ikom monoliths are generally inform of humans and are highly geometricized. Measuring between 2 to 6 fts, the appearance of beards in all the figures clearly shows that most of them are males. Scientific researches on these works dates them to around 200AD (Banjoko, 2009).

Nok Terracotta Culture

Banjoko (2009) reveals that Nok culture is dated to have flourished between the years 2000BC and 300AD, making it the oldest form of traditional art not just in Nigeria but West Africa.



*The Figure ! above is a sample of Igbo-Ukwu sculpture.
Copied from the World History Encyclopedia Jan. 2023.*

The following are the stylistic characters of Nok Art: Complicated Coiffure, high geometricism with cylindrical heads, perforated eyes, nose, mouth and ears, semi – circular and triangular eyes and lids and so on. Asides from the Nok culture, the Ife- Terracotta works are another notable ancient traditional art emanating from South Western Nigeria. Dating as far back as 12-15 century A.D. Ife Art is located at the heart of Yoruba ancestry (Makinde and Aremun, 2009).

Wood Carvings

Adepegba and Abati (2017) opine that wood carvings have being in existence since the time immemorial. Most of these art works are done in wood and are applied to different uses. This

was possible due to the diversity in cultural abundance and most importantly as a result of the surplus abundance of timber made possible by the country's location within the tropical rainforest region of Africa. Therefore, almost all cultural groups in Nigeria possess one form of wood carving tradition with notable styles and characteristics particular to them (Njoku, 2019).

Igbo-Ukwu, Ife and Benin Bronze Traditions

Njoku (2019) says that Igbo-Ukwu Art heritage is one of the oldest bronze sculpture, tradition, in Sub-Saharan Africa, dated to about 9th century A.D. The origins of the technology and knowledge of metal working as displayed by the complicated and intricate designs employed in Igbo-Ukwu bronze findings still baffles scholars till date.

The Figure 2 below is a sample of Igbo-Ukwu sculpture.

Copied from Smarthistory Jan. 2023.



The ancient city of Ife is widely acclaimed by the Yoruba's as the birth place or the ancestral home of the Yoruba people. Many of the ancient Ife artifacts today have been traced to the dynasty of the Ife King Oba Obalufon II who is highly regarded as patron of the arts. Adepegba and Abati (2017) enlighten that one notable characteristic of the Ife art is the emphasis on the size of the head as being the center of knowledge, symbol of ego and destiny and so on. The Ife artists therefore do not observe the rules of proportion in producing their figures but rather the heads usually are made a little larger than the rest of the body; sometimes in the ratio of 1:4. Another notable characteristic of the Ife art is in the use of small holes to indicate beards and hairlines of the masks and faces, and the presence of prominent scarification lines running vertically across the whole face (Njoku and Okafor 2019)

The Figure 3 below is a sample of Ife traditional sculpture.

Copied from Smarthistory Jan. 2023.



Gillon (1979) asserts that the Ife's were also adept in their mastery of copper and its alloys and they produced a handful of works using the material. They also produced terracotta works because the Ife's strived to produce art works that pleases the Oba's, great effort was put into their production to achieve striking naturalism. This naturalism is one of the most notable

attributes of the Ife copper heads which have their facial features well-articulated to true representation of the human beings.

However, studies from all the bronze casting traditions found in Nigeria, Benin ranks as the most popular, known world over. They are most famous for the great attention to details, masterly craftsmanship and dexterity with which they were executed. The inventiveness of the Benin civilization and art was first brought to Western public view following the infamous Punitive British inversion of the kingdom in the year 1897, which saw a great number of Benin artifacts carted away by the British soldiers as war booties (Ezenagu, Olatunji and Iwuagwu, 2014). The ancient Benin people, like their Yoruba counterparts placed great importance on the head as a chief part of the body; they therefore believe that the head is imbued with spiritual energy (ehi) deposited by the creator; Osanobua and his eldest son, Olokun. This is probably the reason why the Benin's have a massive repertoire of bronze heads of their Oba's dunning their royal regalia (Njoku. and Okafor, 2019).

*The Figure 4 below is a sample of Benin sculpture.
Copied from Smarthistory Jan. 2023.*



The art of the Benin people, like most Nigerian cultures is not without the influence of neighboring tribes, consequently, the Benin's trace their bronze casting origin to the great Yoruba town of Ife, from where a man came and taught them different bronze casting techniques. Also, the Benin art was influenced by the naturalistic style of the Ife's (Kasfir, 1999).

Relevance of Anthropology in Art Education

Anthropology contributes significantly to Nigeria art education system by providing insights into diverse cultural backgrounds of students. (discipline,.ng, 2018) identifies the following:

- * Cultural Context: Anthropology helps art educators understand the cultural significance of artworks, enabling them to teach art in its cultural context.
- * Symbolism and Meaning: Anthropology's study of symbolism and meaning-making can inform art education's exploration of art as a form of communication.
- * Diversity and Inclusion: Anthropology's emphasis on cultural diversity can help art educators develop inclusive curricula and teaching practices.

- * Material Culture: Anthropology's study of material culture can inform art education's exploration of art-making materials, techniques, and processes.

Concept of digital technology

Dictionary.Com defines digital technology as the branch of scientific or engineering knowledge application that deals with creation and practical use of digital or computerized devices and methods, system etc. Gobble (2018) view emerging technology as a term generally used to describe a new technology, but it may also refer to the continuing development of an existing technology; it can have slightly different meaning when used in different areas, such as media, business, science or education. The term commonly refers to technologies that are currently developing, or that is expected to be available within the next five to ten years and is usually reserved for technologies that are creating, or are expected to create significant social or economic effects. Newhouse (2002) observes that the function of technology in education include solving of problems, improving living standards and increment of productivity. Therefore the function of technology in any human endeavour is to reduce the amount of efforts being expended on any work. AbidHaleem (2022) observes that globalisation of education has already necessitated the application of digital technologies. The importance and roles of technology are being felt in almost every aspect of human endeavour. Newhouse (2002) substantiates that the function of technology in education include solving of problems, improving living standards and increment of productivity.

Online platforms are available for conducting classes, sharing resources, doing the assessment and managing the day to day activities of academic institutions. Lusardi (2010) asserts that when technology is integrated into classroom teaching, it will not only prepare students for the real world but will equally engage them actively in their learning which is not limited to being able to read and write alone but include being technologically literate. This means that, one should be able to manipulate the inherent advantages in the use of technological devices for learning before he could be referred to as a literate fellow.

The relevance of technology to art education in the 21st century

Yuhan(2022) notes that technology has permeated every aspect of human culture in recent times. An artist's creative expression is now limited only by their imagination, as the range of available materials and tools continues to expand. In the past, artists relied on traditional methods to create their work. However, with the adoption of technology in art-making processes, Nigerian cultural art and crafts can reach new heights of development. Moreover, the intersection of art and technology has led to exciting innovations. The following emerging technologies are being leveraged by creative minds to enhance their work: Virtual reality and Art, 3D Sculpting, Hologram Performance, Antiques Restoration, Repair and Scan4Reco.

Virtual reality and Art

Mcclure (2020) asserts that virtual reality and its related field is one of the fastest-growing digital technology and augmented reality. In these completely digital landscapes, artists have absolute control over their subject or their projects. Virtual reality developers have been expertly using the technology to create immersive marketing for business, but it can be used for other

endeavours. This image is a sample of virtual reality for artists. Painters can render fully 3D pieces in the digital landscapes, sculptors can create mockups of their future projects, and other artists can practice creating their pieces with ease. Virtual reality (VR) technology is also innovative for appreciators of the fine arts. VR devices have made it possible to enjoy the masterpieces on display in various institutions around the world.

The figure 5 below is a sample of virtual reality devices copied from Arts management & Tech laboratory. Carnegie University publication.



3D Sculpting

Mcclure(2020) opines that computer technology and digital landscapes are design for sculptors. Before these advancements, sculptors had to drag enormous blocks of stone into workshops and hammer away at them. Or they would work with clay and other malleable substances for weeks before achieving their desired outcome. With the new development, 3D sculpting software allows artists to explore working with a variety of textures without having to bring them physically. With the help of these programs, a sculptor can recreate the softness of cotton or the delicate tracery of dried leaves. 3D production is technical in operation, physical modeling is more easier compare to digital art. These machines can reproduce pieces in resin or polymer quickly. For larger pieces, the artist can print out different segments and assemble them when completed.

Hologram Performance

Mcclure (2020) further explained that digital technology has even broadened the horizons for the performing arts. Unlike paintings and sculptures, these are ephemeral and even videos cannot completely capture the power of the artist in the throes of their performance. It provides avenue for development of fiction movies, holograms are now being used to recreate performances by artists who have passed away. During a concert in 2019, a hologram was used to project performance by celebrated opera singer Maria Callas, who died in 1977. In 2012, hologram technology was used to recreate deceased rapper Tupac Shakur on stage (Mcclure, 2020).

Antiques Restoration

Ioannis, Alexander and Changhong (2019) explain that problems occasioned by natural disasters or man-made damages during the war, resulted to a great deal of precious historical sites and artifacts have been damaged beyond repair. To repair the damaged sites is difficult, as it may

take several generations of individuals working on these projects due to time, cost, and the lack of information on how the original work actually looked.

The remains of ruins of ancient Roman city of Pompeii, which was destroyed and buried by the eruption of Mount Vesuvius in A.D. 79.



Figure 6: The Pompeii Archaeological site at sunset. Source: Buena Vista Images/Getty Images.

Repair: The (Reconstructing the Past: Artificial Intelligence and Robotics meet Cultural Heritage) project is run by a group of scientists at the Italian Institute of Technology (IIT) to help with the time-consuming and labor-intensive, physical reconstruction process of Pompeii's restoration. The technologies involved in the project are robotics, 3-D scanning, machine learning algorithms, and artificial intelligence Lusenet, (2007). This antiques restoration can be adopted in Nigeria using artificial intelligence and robotics, meet various historical site, cultural heritage site such as Oyo-Ile and other places in Nigeria.

Yuhan (2022) opines that these artifact fragments can be scanned using high-tech computers, which use machine learning algorithms to predict their original configuration. Throughout the process, the AI would be guided by humans to ensure that the pieces are being accurately reconstructed. The computer software compares all fragments in pairs and evaluates their degree of similarity based on the shapes, the fitness, and how the illustrations on the pieces match up, which helps draw a picture of what the original complete artifact looked like. The second component brings robots into the workplace. The robot should be able to scan those pieces on its own, and move the fragments together as a complete one based on the paired results. The robot looks like an arm that has a similar size as the average person, weighing 25 to 30 kilograms and lengthening 80 to 100 centimeters. A prosthetic hand with a glove is attached to the arm to grab and move the fragments with extreme care, and gather information about them while holding them. The robot saves a large amount of time and human resources.



Figure 7: Pieces of a Pompeii pottery artifact mid-assembly. Source: Courtesy IIT.

Therefore, the progress it can contribute to cultural heritage restoration and human history is significant and meaningful.

Repair: The scientists aim to install the robot in Pompeii by the spring or summer of 2022. And hopefully, this project will succeed and benefit other cultural sites in the world that require similar attention.

Scan4Reco: Yuhan (2022) says Scan4Reco is another example of artificial intelligence-assisted technologies for cultural heritages' preservations.



Figure 8: Image of a robot detecting the deep damage of an artifact.

Source: Scan4Reco.

This project uses in-depth scanning cameras to create a high-resolution 3D replica of an artifact to transfer it into digital files. Then, more information about the object's underlying layers which cannot be witnessed directly by the human eye is added to the research by collecting sensor data. Adopting Scan4Reco will assist Scholars in the field of anthropology and Fine and Applied Arts to develop.

Digitization

Clark (2020) observes that laser scanning and photogrammetry are additional technologies that play a key role in the increased progress of digitizing cultural heritage. There is need for Archaeologist and Anthropologist in the field of art to establish a digital library for researchers to enhance public education as well as enrich cultural vibrancy. The place of Fine and Applied Art has gone beyond traditional method with the use of digital Technology. To better preserve this Chen (2020) and Luo (2020) clarifies that researchers and scientists in China used Laser Scanning and Multi-baseline Rotating Photogrammetry to turn the statues and frescos into digital formats, and store them in a safe data library for future studies and possible virtual exhibitions. This would allow people appreciate the caves on their mobile devices with the similar experience as if they were visiting the site in person, but ensure that the caves were not being damaged further. To this end, this method can also be used for historical site like Osun Osogbo sacred grove, Oke idanre and other historic site in Nigeria for the documentation and preservation of the archaeological and anthropological relics for the generations to come. According to Yuhan (2022), the following digital device was developed to address various challenges faced by Scholars in the field of arts:

Ebelebe (2017) states that new developed laser scanning “an automatic, direct measurement of 3D points that can accurately measure and collect data from objects, surfaces, buildings, and

landscapes. Laser scanners collect information in the form of point cloud data, which consists of millions of 3D coordinates (XYZ coordinates).” in Science Direct

Photogrammetry: “a sophisticated process by which information is extracted from photographs to create accurate three-dimensional maps and models. Using ultra-high-resolution aerial photographs, this practice combines UAV-mounted overhead sensors with powerful GIS mapping systems to create dynamic, measurable documents for a number of real-world situations and uses (Yuhan, 2022 in Science Direct).



Figure 9: The wood frame of Notre Dame's Cathedral's roof. Source: Notre Dame De Paris/Maurice de Sully association (Yuhan, 2022 in Science Direct).

Conclusion

Arts generally have gone beyond traditional means where artists used cultural materials for his or her arts. Digital technologies provide opportunity to resolve a number of challenges being faced by art professional and Scholars in the field of arts. This paper revealed that at this twenty first century, archaeological and anthropological relics can easily be discovered, and preserved through digital technological facilities. The paper emphasizes that art educators should avail themselves of modern digital facilities in other to meet the needs of the society.

Recommendations

The following recommendations were made:

- The curriculum planner should incorporate anthropological theories, method and concepts into art education corricula to provide students with better understanding of the cultural contexts of art-making.
- Government management of art schools should encourage collaborations between anthropologists and art educators to develop new approaches to teaching and learning of art, culture and society.

- Art educators and researcher should be encourage to incorporate ethnographic research methods into art education to provide students with hands-on experience in conducting field research, collecting data, and analyzing cultural practices.
- Art educators and researcher should be encourage to Incorporate digital technologies, such as digital ethnography, virtual reality, and social media, into anthropology and art education to promote innovative teaching and learning practices.

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