

## CHALLENGES OF CONCRETE SCULPTURE IN THE 21ST CENTURY ART PRACTICES IN NIGERIA: ISSUES OF PRODUCTION, DURABILITY AND PATRONAGE

Wiche Johnson Bekwele

Department of Fine and Applied Art, Faculty of Humanities,  
Ignatius Ajuru University of Education, P.M.B. 5047 Rumuolumeni,  
Port Harcourt, Rivers State, Nigeria.

**Email:** Johnsonwiche074@gmail.com,

### ABSTRACT

This paper highlights the Challenges of Concrete Sculpture in The 21st Century Art Practices in Nigeria: Issues of Production, Durability and Patronage. It was designed due to the neglect and less value placed on concrete sculpture recently which have given rise to over usage of other conventional materials like fiber glass, wood, metal etc. concrete sculpture which is the combination of cement, sand and water has gained popularity over the years which has create an avenue for sculptors to explore with, but of recent times is now seen as middling media in sculptural art practices today. The objective of this paper is to bring to bear the challenges facing concrete sculpture in Nigeria within the 21st century. Hence, this study will discuss extensively on concrete sculpture in the following areas. 1. Production of concrete sculpture 2. Durability of concrete sculpture and 3, patronage of concrete sculpture. furthermore, this paper stands to promote the use of concrete in the production of contemporary sculpture for effective durability and patronage.

**Keywords:** Concrete, Sculpture, Art, Contemporary

### INTRODUCTION

Art is the creation of things through the use of tools and materials to satisfy the mind and the beatification of our environment. Art has existed since the creation of the world by God Almighty our creator. Man, been one of the creature of God was deposited with creative treats. These facts can be proven through the creative rock paintings, tools and weapon done by the prehistoric men. Art has served man for different purposes such as beautification, currency, culture, household utensils, respectively. The term art has been defined by many scholars from various options. According to Beat Wyss (1999) art makes the experiences of time spatially perceptible by forcing what is ever fleeting into a calm frame work of a symbol. This definition of art sees art as a means of preserving a moment of time.

Omuaru (2002:17) opines that art is a liberal field of study. It see's art as a field of study, especially, the aspect of liberal arts such as philosophy and those in social sciences. This definition of art is focused on the study of art as a course or subject studied in school without considering the practice and production of artistic objects. The truth of the matter is that; art is broader than just being a liberal field of study.

Awani (1977) cited as Omuaru (2002:17) see's art as an outward expression of inward feeling or search. This definition is centered on seeing art as taught of man that is made reality. Yes, it is true that in art, some of the work done are made through inward expression. In other words, some works are also produce through observation, experiments and accidentally. Art is also found in nature like stones, rock, human and animal and so on. Art is the inward feelings of outward expression and is existing in the universe, language, dressing, greetings, culture and production of art piece.

Usman, Odewumi, Obotuke, Apolola, Ogunyinka, and Chiedozi (2014:3) State that the word “Art” is a universal language of expression. They further opine that art could be described as a way in which man expresses his feeling, ideas, views and thoughts about himself, the world, people and nature.

They also define art as an expression of one’s feelings, ideas, thoughts, mental pictures, songs, and so on, in a way that will appeal to the eyes of the beholder and the minds of the listeners. This definition exposed all the ingredients and elements of Art descriptions which are found in today’s art practices.

Lazzari and schlesier (2008) opined that “no definitions of art are universal times and absolute” they further state that “all definitions are framed within larger systems of knowledge, and these systems shift and evolve” they concluded that “art is primarily a visual medium that is used to express ideas about our human experiences and the world around us”. The art of a particular ethnic group exposes their culture and experiences.

Art is made to perform certain functions in the society, such as promoting spiritual and physical well-being; communicating thoughts, ideas, and emotions; commemorating the dead; glorifying the power of the state and its ruler; celebrating war, conquest and peace; protesting political and social injustice; promoting cohesion within a social group; recording the likeness of people and the context in which they live; informing people about their cultural values; educating humans about themselves and the world in which they exist and a means of entertaining them. Elebute and Udokuma (2016: 13-14)

Apart from the stated functions by Elebute and Udokuma, art still play other roles for the development of a nation such as a skill to earn a living, as instructional material for teaching and learning, as therapy for sick/mentally derailed persons, as symbol and so on.

According to Omuaru and Uju (2019:16). Opine that Art works produced are symbols of the culture; they are some aspects of the reliable means of documenting, interpreting and sharing peculiar cultural affairs with foreigners as well as indigenous peoples and generations to come. The Nok and Benin Sculpture are good examples of such works of art. Art serve as symbol in culture which is an easy way to identify most African society. These works of art are sculptural piece. The production of sculptural pieces in all over African society is associated by some events such as farming, death, festival, masquerade tradition, fertility and so on. Sculpture is the most valued art piece on earth and it is usually expensive in terms of production and purchase.

**The term sculpture was derived from the Latin word (sculpere) which means “to carve”, and it sculpture is divided in two forms such as:**

1. Two-dimension (sculpture in relief): this the type of sculpture which has only length and width. it shows only one view, relief sculpture is mostly framed like painting and drawing, sometimes are placed on the wall.
2. three-dimension (sculpture in the round). Three-dimensional sculpture is also referred as sculpture in the round, because it stands on a base, it is a kind of sculpture one can see all the views, such as, front, back, left and right side view. It has length, width and depth.

The origin of sculptural art could be traced to the creation of plants, animals and man by God and the creative exploration made by the early men during the prehistoric era. The origin of the art of sculpture dates back to the origin of man, matching with the primeval experiences of the prehistoric man. The early man suddenly developed the need to improve upon his skills and correspondingly to subject the hectic character of nature to a portable size and gain a certain measure of control and promote fertility. He achieved this by carving out or making incised contours of the figure of animals on the walls of the caves and stones with sticks and fingers. As man’s intellect and experiences widened, there came into being the need for man to experiment with different materials like alabaster, and limestone.

According to Barton (2002:29) life-size and even larger statues, carved in slate, alabaster, and limestone, were as regular and simple in shape as the tombs themselves. Artists, both contemporary and traditional confirm the notion that there exists a relationship between them and their environment.

The prehistoric men work served diverse purposes both in hunting, farming, and religious worship. Today, works of art served more than a million purposes such as aesthetic, historical, object of worship, advertisement, symbols, utensils, beautification, etc. sculpture as the most solid area in art is found all over the world and are sometimes formed by nature or made by man. It produced with variety of materials like metal, wood, stones, plaster of Paris (pop), cement and sand (concrete), plastic etc. over the years, artist has explored different media in the production of sculpture. Most person find it suitable to execute works with concrete because it is less expensive while some carve with wood. production of a sculptural piece is faced with numerous challenges especially on the materials and method. In the clay modeling to fiberglass casting the process began from drawing, Marquette, armature, application of clay, detailing, mold taking, charging, coupling, patination and mounting on a pedestal. Sculptural piece could be in Marquette, life size or city size. The bigger the size of the sculpture the high materials and costs it consumes.

The use of concrete as a media in sculptural art is common among sculptors in the past. Most of the concrete sculptures are produce with high quantity of sand instead of mixing high quantity of cement have pose a great challenge for concrete sculpture to stand the test of time. The over familiarity of conventional materials such as cement, wood, fiber glass and calcium carbonate has degraded the value of art piece produce with concrete in recent time. Most of the produced works are no longer valued before the face of art tourist who come encounter with some of the sculptural pieces. Hence the researcher interest is for continues existence of concrete as a media in the production of contemporary sculpture.

This study will also stand as a reference material in sculpture, and in general art practice. It will inculcate on the contemporary sculptors the value and significant of concrete as a media in sculptural art practice and reduce cost in the production of sculptural piece. The use of concrete as a media is usually less expensive in cost of producing a sculpture. The objective of this paper is to bring to bear the challenges facing concrete sculpture in Nigeria within the 21st century.

### **Overview of Concrete Sculpture**

The combination of sand, Portland cement and water is referred to concrete in sculptural art. When the mixture is use as a media in sculpture, such sculpture is called concrete sculpture. the origin of concrete can be traced to Small-scale production of concrete-like materials by the Nabatean traders who occupied and controlled a series of oases and developed a small empire in the regions of southern Syria and northern Jordan from the 4th century BC. They discovered the advantages of hydraulic lime, with some self-cementing properties, by 700 BC. They built kilns to supply mortar for the construction of rubble masonry houses, concrete floors, and underground waterproof cisterns. They kept the cisterns secret as these enabled the Nabataeans to thrive in the desert. Some of these structures survive to this day.

In the Ancient Egyptian and later Roman eras, builders discovered that adding volcanic ash to the mix allowed it to set underwater. According to Wikipedia, Concrete floors were found in the royal palace of Tiryns, Greece, which dates roughly to 1400–1200 BC. Lime mortars were used in Greece, Crete, and Cyprus in 800 BC. The Assyrian Jerwan Aqueduct (688 BC) made use of waterproof concrete. Concrete was used for construction in many ancient structures.

The Romans used concrete extensively from 300 BC to 476 AD, a span of more than seven hundred years. During the Roman Empire, Roman concrete (or opus caementicium) was made from quicklime, pozzolana and an aggregate of pumice. Its widespread use in many Roman structures, a key event in the history of architecture termed the Roman architectural revolution,

freed Roman construction from the restrictions of stone and brick materials. It enabled revolutionary new designs in terms of both structural complexity and dimension. Concrete, as the Romans knew it, was a new and revolutionary material. Laid in the shape of arches, vaults and domes, it quickly hardened into a rigid mass, free from many of the internal thrusts and strains that troubled the builders of similar structures in stone or brick.

Sherwin-Williams (2012) opines that Concrete is an alkaline material with a pH of 12-13, and as such is susceptible to attack by chemicals with a pH of less than 7, known as acids. Wikipedia stated that Concrete is a composite material composed of fine and coarse aggregate bonded together with a fluid cement (cement paste) that hardens over time, most frequently in the past a lime-based cement binder, such as lime putty, but sometimes with other hydraulic cements, such as a calcium aluminate cement or with Portland cement to form Portland cement concrete (for its visual resemblance to Portland stone. Many other non-cementitious types of concrete exist with different methods of binding aggregate together, including asphalt concrete with a bitumen binder, which is frequently used for road surfaces, and polymer concretes that use polymers as a binder.

The exploration of concrete (cement, sand and water) can be traced to Henry Moore. According to Judith (2015). Moore used concrete, a material then associated with modernist architecture, to make sculptures between 1926 and 1934. Henry Moore made in total twenty-one sculptures in concrete, all between the years 1926 and 1934. This was a period of experimentation and rapid development in his career in which he explored this new medium alongside stone and wood. As he later commented, he was then very interested in all types of sculptural media and took up concrete in part because it was becoming a more commonly used building material and he was hopeful of being commissioned to produce concrete sculptures to go with these new buildings. Perhaps equally important was its cheapness (he had little money then) and the different ways in which it could be worked: concrete could be cast in a mold, shaped and added to while soft, or carved when hard. It could also be coloured by pigments and incorporate other objects. See picture.



Plate:	1
Title:	Seated Figure
Artist:	Henry Moore
Medium:	Concrete (cement and Sand)
Size:	2ft x 4ft
Copy right ©	The Henry Moore Foundation
Photographer:	Henry Moore Foundation
Source:	Wikipedia

He further explains that Concrete is a material invented by the Romans. It consists of a binder and a filler which, when mixed together with water, hardens. The binder is gypsum, lime or volcanic dusts such as tufa and pumice, while the filler is a range of aggregates, such as brick and ceramic rubble, ground rock and fine gravel. The quality of the aggregate affects the texture of the concrete, while its colour can be altered by the addition of pigments. After the fall of the Roman empire concrete was no longer used and only re-emerged in the nineteenth century with the

invention of Portland cement in 1824. In the 1900s French architects Auguste Perret and François Hennebique pioneered the use of reinforced concrete as a building material, embedding steel bars in concrete before it set. The modernist architect Le Corbusier, who for a period worked for Auguste Perret, used reinforced concrete in his buildings in the late 1920s.

Today, concrete sculpture is found all over the world and have been explored by many sculptors. Concrete sculpture have been one of the oldest form of sculptural rendition. It consists of two methods, the direct casting and the cast method.

**The Direct Casting Method:** This involves applying the mixed cement and sand directly on the reinforcement on till the desired shape is achieved. Although, it requires patient and it is time consuming due to the slow drying nature of the Cement.



Plate:	2
Title:	Wrestlers
Artist:	Wiche Johnson Bekwele
Medium:	Concrete (Cement and Sand)
Year:	2012
Size:	5ft x 6.6ft
Photographer:	Nelson Gift Uba

**Cast Method:** It involves a rigorous process ranging from modelling with clay, taken mould, casting (charging), and coupling to form the sculpture.

Example of concrete sculpture is the fisherman throwing a fish net sculpted by Jacob Ayauwo in 2016 mounted in the front of fine and applied art department Ignatius Ajuru University of Education, Rumuolumeni Port Harcourt. See picture.



Plate:	3
Title:	Fisherman
Artist:	Jacob Ayauwo
Medium:	Concrete (Cement and Sand)
Year:	2016
Size:	5ft x 6.4ft
Photographer:	Wiche Johnson Bekwele

### Challenges Facing Concrete Sculpture in The 21st Century Art Practices in Nigeria

Concrete sculpture have been faced with copious challenges in the time past which has reduced its values in recent time. The challenges include:

- 1. Poor Reinforcement (Armature):** Production of sculpture with concrete follows a technical process and two different process or methods. Both methods need adequate reinforcement (armature). most sculptors are always in a hurry to produce a piece have led to poor production of a sculptural piece. Most of concrete sculpture usually collapse after their production especially free standing sculpture as a result of poor reinforcement.
- 2. Inadequate Mixing of Cement, Sand and Water:** Another challenges facing concrete sculpture production is the poor mixture of aggregate. Concrete sculpture consume a lot of time which take for one to three weeks or one month to a year. Due to its time consuming, getting adequate mixture becomes a great challenge to the sculptors. Sometimes, the sand may be excess which sometimes leads to cracking and in most cases it can lead to collapsing. This issue has led to collapse of most concrete sculptures in recent time which have constituted to poor patronage of concrete sculpture in the 21st century.



Plate:	4
Title:	Unknown
Artist:	Unknown
Medium:	Concrete (Cement and Sand)
Year:	Unknown
Size:	6ft x 8ft
Location:	Uniport
Photographer:	Wiche Johnson Bekwele

Plate:	5
Title:	The Crocodile
Artist:	unknown
Medium:	Concrete (Cement and Sand)
Year:	Unknown
Size:	3ft x 8ft
Location:	Uniport
Photographer:	Wiche Johnson Bekwele

- 3. Poor Maintenance Culture:** Most damaged or collapsed concrete sculpture are as a result of poor maintenance. Concrete sculpture needs regular maintenance in terms of filling the damaged parts and regular painting. This has become a reoccurring issue over the years that most sculptural pieces are not maintained after they have been produced. See picture



Plate:	6
Title:	The Hunter and Crocodile Encounter
Artist:	Ogori Diamond
Medium:	Concrete (Cement and Sand)
Year:	1990
Size:	6ft x 12ft
Location:	IAUOE
Photographer:	Wiche Johnson Bekwele

Plate:	7
Title:	Unknown
Artist:	Unknown
Medium:	Concrete (Cement and Sand)
Year:	Unknown
Size:	6ft x 8ft
Location:	Uniport
Photographer:	Wiche Johnson Bekwele

The Hunter and Crocodile Encounter is a sculptural piece done as an NCE project by Ogori Diamond in 1990, and was mounted in the front of social studies department, formal fine and applied art department, then Rivers State College of Education, now Ignatius Ajuru University of Education. The sculptural piece has encountered a lot of challenges, and it needs maintenance for its continues existence. The sculpture was moved from the Social Studies department to the new Fine and Applied Art Department for maintenance. But up till date nothing has been done, the state of the piece has worsened due to lack of maintenance. Many concrete sculpture has been damaged and abandoned by heads of sculpture unit the department of Fine and Applied Art who could have taken it as their sole responsibility by introducing maintenance culture as “Course” in the department in order to enable them to keep the sculpture garden alive. In many higher institution, many concrete sculptures done by the past student has been abandoned and are allowed to be covered by grasses and grown trees thereby reducing the value of sculpture

Poorly Paid: Most sculptors accept contract due to lack of finance. in most cases, a sculptor may negotiate to carry out a concrete sculpture production in a reasonable amount another sculptor accepts the contract for a lower amount. This will lead to purchasing of low material to enable the artist make a little profit. In most cases, the works produce may not last the taste of time.

- 4. Over Weight:** This is a great challenges facing concrete sculpture in the 21st century. Unlike other media such as metal, wood, fiberglass, paper mache respectively which can easily be carried out from one place to another. Concrete sculpture is usually heavy due to the use of cement and sand. Most sculptors find it difficult to pad inside the sculpture with cement bags, pieces of paper, leaves etc. to reduce the weight.

5. **Climatic Factor:** this include excessive rainfall, sunshine and wind. This is great challenges, especially, the outdoor sculpture. in most cases, the cement may fade off due to weather condition.
6. **Contact External Forces:** this includes human, animals, vehicles etc. these external forces may come in contact with concrete sculpture and it got damaged. The external forces come in contact through accidents, by mistake or intentional.

### **Ways to Remedy the Challenges Facing Concrete Sculpture in The 21st Century Art Practices in Nigeria**

1. **Adequate Reinforcement:** Concrete sculpture should be effectively reinforced considering the heavy weight after its production, welding machine should be used for adequate reinforcement.
2. **Effective Mixture of Cement and Sand:** To produce a durable concrete sculpture, the cement and sand should be properly mixed so that the mixture will be adequate despite how long it takes. If the mixture is two shovel of sand to three shovel of cement, it should be so all through for effective mixture.
3. **Regular Maintenance of Concrete Sculpture:** It should be a culture that concrete sculpture should be maintained at least once in three years. This will enable the sculpture to survive the taste of time.
4. **Sculptors Should Place Values Before the Client:** To avoid poor payment by clients, sculptors should place values to themselves to avoid poor payment by clients.
5. **Effective Filling of Interior Parts of the Concrete Sculpture:** to produce a weightless concrete sculpture, contemporary sculptors should effectively have filled the interior parts of the sculpture with empty cement bags, waterproof and any other material that does not have weight.
6. **Adequate Preparation of Armature and Appropriate Mixture of Aggregate:** considering the environment we found ourselves, sculptors should effectively prepare armature as well mix the cement and sand to avoid damage.
7. **Building High Pedestal/Protecting The Sculpture:** The sculpture should be protected from the contact of external forces by building a high pedestal. In some cases, iron should be used to guard the surrounding of the sculpture to avoid damage by external forces.

### **CONCLUSION**

Concrete sculpture have been face with challenges within the 21st century in Nigeria. Before the discovery of some sculpture media like fiber glass, plaster of Paris etc. sculptors have explored with concrete. A sculptural piece produced with cement and sand is known as concrete sculpture. in recent time, this sculpture media has been abandoned by most sculptors. Cement and sand are affordable and produce a durable sculptural piece. Researchers and sculptor should revisit the media for effective utilization of the media in sculptural art practice. The strength of concrete in sculpture is the reinforcement, therefore, contemporary sculptor should be well reinforced to avoid collapse when the work is produce.

Moreover, maintenance culture should the priority of the sculptors, in the area of commissioned jobs, sculptors should relate with the clients for regular maintenance to avoid damage. Concrete as a media in sculptural practice should be adopted by contemporary sculptors to promote art and culture in Nigeria.

## RECOMMENDATION

1. Adequate reinforcement should have done when adopting concrete as a media to ease its challenges of collapse.
2. Sculptors should be patience when working with concrete
3. Cement and sand should be adequately mixed to avoid cracking after the work is done.
4. High level of maintenance culture should be adopted by the contemporary sculptors in the case of works done with concrete media.
5. Waste paper should have adopted in filling inside the concrete sculpture to reduce the overweight of the sculpture.

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