MAIDJAD

Maiduguri Journal of Arts and Design is a refereed journal published bi-annually. **MAIDJAD** was founded early in 2016 in order to provide a suitable academic platform for the discussion of contemporary theories, research and practice-based activities that are broadly related to the arts and design. Our esteemed referees review each article submitted, to evaluate the quality of research and relevance to the development of academia and for accessibility of such a paper to the local and international audience.

Dr. Jacob Ioraa
Department of Theatre Arts,
Faculty of Arts, University of Maiduguri,
Borno State.
jacobioraa24@gmail.com

Dr. Agaku Saghevwua Amos
Department of Fine Arts,
Faculty of Environmental Studies,
University of Maiduguri,
Borno State.
amosagaku@gmail.com

Dr. Ifeanyichukwu Asogwa
Department of Fine Arts,
Faculty of Environmental Studies,
University of Maiduguri,
Borno State.
ifeanyichiukwuasogwa@gmail.com

CONSULTANTING EDITOR

Prof. J.J. Jari
Department of Fine Art,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria.
jacobjari@yahoo.com

Prof. Barth Oshionebo
Department of Theatre Arts,
Faculty of Arts,
University of Abuja, Nigeria.
barthoshionebo@gmail.com
barthoshionebo@yahoo.com

Prof. Tonie Okpe
Department of Fine Arts,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria.
tonieokpe@yahoo.com

SUBMISSION GUIDELINES

MANUSCRIPT FORMAT
Submissions should be typed double-spaced, fully justified, in Times New Romans with 12 Font size on A4 paper as a Microsoft document.

ABSTRACT AND KEY WORDS
All submitted papers should include an abstract of not more than 200 words and are to be accompanied with five key words to be placed immediately after the abstract section.

AUTHOR (S) IDENTIFICATION
A separate sheet indicating the title of the paper as well as the following information about the author (s) should accompany each submission: i. Full name; ii. Institutional affiliation; iii. **Active** Email address; iv. **Active** Phone number; v. Current status e.g. Professor, Dr., Senior Lecturer etc.

SUBMISSION
All contributions are to be submitted as e-mail attachments to maidjad2016@gmail.com. The journal secretary will write to all contributors within three days to acknowledge receipt of submissions. Articles will be given to professional assessors in the appropriate areas; thereafter, they will be sent back to contributors for corrections.

REFERENCE STYLE
MIADJAD has since its Maiden Edition adopted the documentation style of the American Psychological Association (APA) and therefore, expects all contributors to rigorously format their references using the APA style.

FOREWORD

The editors of MAIDJAD continue to maintain consistency as this edition is published on schedule. A variety of papers are once more drawn from the different disciplines of the arts, like in the previous editions. It appears the central concern in this edition is "recycling", particularly of plastics.

There may be no act to find a journal's construction on face value but, as was the observation in the previous edition, experts in the art industry still shy away from sharing their views on this platform. A new meaning appears to have been given to what a journal is, which is that it is a forum by which younger academics publish papers to obtain promotion. This is why all contributors in this edition, like in the previous one, are located in tertiary institutions and are those who are yet to reach the pinnacle of their carriers. Many artists and designers are actively engaged in art propagation outside these tertiary institutions such as galleries, museums, theatres, troupes and industries. Their experiences at their jobs would certainly add invaluable knowledge to readers. They need to be attracted to contribute papers. Perhaps MAIDJAD should consider raising funds to organize writing workshops and conferences with the sole purpose of reestablishing the importance of art journals to all art enthusiasts.

This observation is not in any way meant to undermine the quality of papers in this edition. Indeed, I was troubled by the emotions Sunday Gyang's paper evoked. I saw Kevin Carter's Pulitzer award winning photograph, "Starving Child and Vulture", in 1994. I am aware that a lot of money was raised to support Sudan in its fight against famine as a consequence of the photograph's publication in the New York Times. I am also aware that Carter committed suicide eventually. What I did not know, which was provided by Gyang's paper, was the point that Carter refused to help the child as directed by his sponsors with the bizarre excuse that he had a plane to catch! How different was his action from that of a National Geographic photographer who refused to interfere while filming an ape in trouble?

Readers will certainly find many papers of interest in this edition.

Professor Jacob Jari
January, 2020

TABLE OF CONTENTS

LIST OF CONTRIBUTORS

Barth OSHIONEBO/ Joseph Tyoakula ANDE
Department of Theatre Arts
University of Abuja, Abuja
barthoshionebo@gmail.com/meetjoeande@yahoo.com

ABODUNRIN, Olusegun / AKOH, Jimmy
Department of Theatre Arts
University of Abuja
okabodunrin@gmail.com/jimmy.akoh@gmail.com

NWABUOKU Kennette Dikens (PhD)
Department of Fine and Applied Arts
Faculty of Environmental Sciences
University of Benin, Benin City, Nigeria.
kennette.nwabuoku@uniben.edu

GYANG Sunday S.
Seminar and Publications Department,
National Institute for Policy and Strategic Studies (NIPSS),
Kuru, Jos Plateau State, Nigeria
sunnydgyang@gmail.com

ABUBAKAR Ezra / MATHIAS Helga
Department of Industrial Design,
Modibbo Adama University of Technology, Yola
Department of Industrial Design, University of Maiduguri
ebubakar@gmail.com/mathias.helga@gmail.com

DAUDA Alabi Usman
Department of Fashion Design and Clothing Technology,
College of Science and Technology,
Kaduna Polytechnic, Kaduna
usmandaudaalabi@gmail.com

ANTHONY Eleh
Department of Photography
School of Art and Industrial Design, Auchi Polytechnic, Auchi1
elehanthony@yahoo.com

ASOGWA Ifeanyichiukwu Fidelis,
Sculpture Section, Department of Fine Arts,
Faculty of Environmental Studies,

University of Maiduguri, Nigeria.
ifeanyichiukwuasogwa@gmail.com

ADENLE John Oyewole
Department of Creative Arts,
Faculty of Arts,
University of Lagos,
Nigeria
adenlejohn2000@gmail.com

ARUEYINGHO Geoffrey Ajemijoye
Department of Fine and Applied Arts
Federal College of Education
Abeokuta.

AGADA, Ladi Onyi Andrea
Department of Fine Art,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria
agadaladi@yahoo.com

BOYI, John Mallam
Department of Fine and Applied Arts
Kaduna State College of Education
Gidan Waya – Kafanchan
Kaduna State.
boyijohn25@gmail.com

MATHIAS Helga
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
mathias.helga@gmail.com

ABUBAKAR Ezra
Department of Industrial Design,
Modibbo Adama University of Technology, Yola
ebubakar@gmail.com**,**

ABDU Sheikh Ubale
Department of Fine and Applied Arts
Aminu Saleh College of Education, Azare

PALNAM Ijudai Musa,
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
ijudaimusa@yahoo.com

AZI J. I.
Department of Industrial Design,

Faculty of Environmental Design,

Ahmadu Bello University, Zaria

azijoe86a200@yahoo.com

SALAWU Nanahawa
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri,
Borno State Nigeria
salawunana@yahoo.com

ADENLE John Oyewole
Department of Creative Arts,
Faculty of Arts,
University of Lagos,
Nigeria
adenlejohn2000@gmail.com

PALNAM Ijudai Musa
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
ijudaimusa@yahoo.com
HASHIM Muhammad Bashir
Department of Fine and Applied Arts
Federal College of Education, Kano
bashirdesign@yahoo.com

PAUL James Oche

Department of Fine Arts

Faculty of Environmental Studies,

University of Maiduguri

ochenisart@gmail.com

IZOGIE, Collins Ogieva, PhD
Department of Fine and Applied Arts,
Federal College of Education (Technical),
Asaba, Delta State, Nigeria
ogieva4real2014@gmail.com

NWABUOKU Kennette Dikens, PhD
Department of Fine and Applied Arts,
University of Benin, Benin City, Nigeria

SATSI Stephanie Gyenom
Department of Visual and Creative Arts
Faculty of Arts
Federal University of Lafia
s.satsi@yahoo.com

HARUNA Naomi Andrew
Department of Industrial Design
Faculty of Environmental Studies,
University of Maiduguri
naomiaharuna@gmail.com

SYLVA Christine
Coventry University
Business School
United Kingdom
cheans@gmail.com

ADIWU Talatu Onkala
Department of Fine Arts
Faculty of Environmental Studies
University of Maiduguri
Maiduguri
adiwutalatuonkala@gmail.com

Professor MBAHI A. A.
Department of Fine Arts
Faculty of Environmental Studies
University of Maiduguri
Maiduguri

adamumbahi78@gmail.com

BODY OF ABSTRACTS

1.

THE CONTEMPORARY WOMAN IN A CONSERVATIVE CULTURE: JULIE OKOH'S *OUR WIFE FOREVER* TO THE RESCUE

OSHIONEBO, Barth / ANDE, Joseph Tyoakula

Abstract
Society's dynamism occasioned by age and historical antecedents have given rise to education, religion and other media, which have caged cultural inhibition. Education, religion and the media have made what is today referred to as modernity and indeed a globalized village. This paper has therefore, done a critical reading of Julie Okoh's *Our Wife Forever* and has exposed the ills embedded in tradition; the greed as well as the inhumanity of man but particularly that to the woman by asking her to drink the water used in washing the corpse of her late husband, unhealthy as it is and as it sounds, in the name of culture. The dynamism of culture is hereby deliberately made static to the benefit of *Thomas*, her brother-in-law but to the detriment of the woman where the major character is deprived of freedom and dignity. The paper submits that in the face of dogmatic tenets of culture, *Victoria*, as her name implies, uses her education which equips her with health tips, law and good neighbourliness of her late husband's friend, *Felix,* to defeat *Thomas* in court and regain her lost freedom and property hitherto claimed in the name of tradition as belonging to *Thomas* perhaps as 'next of kin'.

Key words: Woman, Contemporary, Conservative, Culture, Rescue

2.

THE PLACE OF FOLLOW-UP IN COMMUNITY BASED THEATRE: AN EVALUATION OF THE ABU FUNTUA EXPERIENCE

ABODUNRIN, Olusegun / AKOH, Jimmy

Abstract
It could be argued that early forms of development were not truly reflective of the objective to promote change. There is an increasing recognition of the need to hear the opinion of people who are most affected by development. One way of doing this is through 'follow-up', which is a way to foster post-intervention and co-operation. It measures the depth of impact and cross checks action strategies, results and change with a view to encourage and re-motivate the people. It is in the light of the above that this paper, investigates 'follow-up' which is a mechanism for monitoring and evaluating community theatre to ensure that project findings are acted upon for concrete impact. It critically looks at three Community Theatre projects carried out in Funtua, Katsina State by the Department of Theatre and Performing Arts, Ahmadu Bello University, Zaria (A.B.U), consecutively. While it acknowledges that the choice of the same location for three consecutive Community Theatre projects was to achieve genuine collaborative mutualism, it admits that it is equally important for Community Based Organizations (CBOs) to take up the responsibility of project sustainability rather than completely depending on government for such action. This paper outlines the prospects and limitations of the Funtua Community Theatre experience and proffers solutions for a more sustainable practice. It concludes that taking students to a community for Community Theatre project should not be seen as attempting to create a need for dissemination of information, but rather disseminating information for which there is a need. The key concern of the animators should be in knowing precisely whether, the message of their collective performance with members of the community was understood or if there is a willingness to take concrete action in changing negative behaviours for more positive ones.

Keywords: Follow-up, Community-based, Theatre, A.B.U., Evaluation, Funtua, Experience.

3.

THE MILKMAID IN PERSPECTIVE: A FORMAL ANALYSIS OF SELECTED FULANI MAIDEN INSPIRED ART WORKS

NWABUOKU, Kennette Dikens

Abstract
The Fulani Milk Maid otherwise known as 'Mai Nono" is a sight that can neither be easily overlooked nor passed by, unnoticed. She is often seen hawking and dispensing her nourishing produce of fresh or pasteurized cow milk, usually from her intricately decorated calabashes. Her presence in any neighbourhood is quite engaging due to some certain factors. These include her application of heavy facial make-up, use of elaborate and artificial hairdo, adornment of a constellation of jewellery and her often multi-coloured apparel. Her exceptional slim and tall physique is further accentuated with her usually carved or painted calabashes, which are often delicately balanced on her head without major support. All these add up to give the milkmaid her distinctive personality and as a consequence, several visual artists have continued to derive inspiration from this entity. This peculiar personality, which has inspired the works of countless visual artists locally and internationally, has also been replicated in diverse media, such as oil and watercolour paintings. Others include three-dimensional and relief sculpture, metal fabrications, graphic posters and photography, textile and fashion just to mention a few. However, despite the foregoing, it is sad to note that the milkmaid icon has not been given adequate attention in scholarly discourse. This paper therefore, attempts at shedding more light on the visual entity of the milkmaid and highlighting her modest contribution to Nigeria's economic growth. This is done by showcasing selected oeuvres of same theme in various media and formally analyzing the works contextually.

Keywords: Nomad, Pastoralist, Milk Maid, Calabash, Fulani

4.

USING GRAPHIC COMMUNICATION SOLUTIONS IN ADDRESSING IMPACT OF CLIMATE CHANGE

GYANG, Sunday S.

Abstract
There is no doubt that the frequent occurrences of disasters such as flood, famine and drought have contributed greatly in slowing down the pace of development in Africa at various levels. This is largely attributed to the impact of climate change. Activities such as the use of fossil fuel in generating energy emit Greenhouses gases (GHGs) into the atmosphere. They have consequently led to what is called global warming. This impact has negatively affected agricultural production, food security, and has caused health challenges in many countries of the world. The over reliance on wood for domestic energy supply has increased the chances of deforestation, which is a contributing factor to desertification in northern Nigeria. In a bit to intervene in the mitigation and adaptation of climate change, this study employs the use of graphic communication solution to address the rising issues of climate change as they affect Nigeria. This is because Graphic Design as a discipline focuses on the application of design principles and creative thinking processes and techniques to solve visual communication problems which may or may not have far or wider reaching implications as the case may be. This study employs the use of graphic images (GI) to elicit the opinion of respondents on whether or not the comprehensives convey the gravity of climate change, and the need to participate in its mitigation and adaptation, using a random representation of a sample population in Jos, the Plateau State capital. The aggregate mean responses of the of respondents to participate in the mitigation and adaptation of climate change is 4.16 which is greater than the benchmark mean of 3.00 with the standard deviation value of 0.99, indicating that majority of respondents, are of the opinion that the use of GI billboard display (comprehensive) has the capacity to motivate and engage people in friendly environmental activities. The study recommends for the use of climate change campaigns, billboard displays in strategic sites, as well as the provision of alternative source of energy to the general public.

Key words: Graphic Images (GI), Climate Change, Communication, Mitigation, Adaptation, Greenhouse gases (GHGs)

5.

APPLICATION OF SINGLE FIRING TECHNIQUE FOR EFFICIENCY IN FUEL AND TIME

ABUBAKAR Ezra / MATHIAS Helga

Abstract
Efficiency in fuel and time as well as the sustainable use of raw materials are topical issues in ceramic processing and firing. In view of the foregoing, this paper reports on the analysis of ceramic raw materials from Adamawa (Numan) and Bauchi using Atomic Absorption Spectroscopy and the adoption of trixial blending technique for the formulation of ceramic body and glazes suitable for single firing (once firing) as a means for fuel and time efficiency. The result of the study indicated that, the blends of 60% ball clay, 30% granite and 10% siltstone and 10% ball clay, 60% granite and 30% siltstone were appropriate for the formulation of body and glaze respectively that can fire once up to 12000C. The result of the study also showed that in the 2-phase firing, a total of 75 liters of Kerosene was expended for bisque and glaze firing which lasted 10 hours; while in the single/once firing which eliminates the bisque firing stage, a total of 45 liters of kerosene was expended to attain glaze temperature of 1200OC in 8 hours. This clearly shows a reduction in time of firing from a total of 10 hours for the 2-phase firing which involve bisque and glaze firing to 8 hours for the single/once firing. The result also showed a reduction in the volume of fuel used from a total of 75 liters of kerosene used in the 2-phaase firing to 45 liters of kerosene in the single/once firing. This is a clear indication of the efficiency of the single/once firing technique in reducing firing cycle, time and savings in money.

Key words: Body, Efficiency, Firing, Fuel, Glaze, Time,

6.
AN ASSESSMENT OF NATURE IN CONTEMPORARY VISUAL ART

DAUDA Alabi Usman / ANTHONY Eleh

Abstract
The new millennium culture is literally re-inventing itself on a daily basis with so many technological innovations taking place and nature re-defining itself constantly for new philosophical and artistic development. Renowned Contemporary Nigerian artists have created works on humanistic, cultural and ethical concerns that provided an access point for cultural reflection from our natural being which elicited varied aesthetic feelings that convey metaphoric expressions. However, many emerging artists are still involved in copying existing works judging from incidents of repetitive and duplicated pictorial themes. In the Nigerian art scene, such practices occur ranging from slight lifting of parts to exact reproduction of other artists' works. These acts amount to plagiarism and a serious professional offence (Egonwa, 2007). There are many things artists can turn to for inspiration within the natural environment. At the beginning of the 20th-century, artists questioned academic art for its lack of freedom and flirted with so many isms: secessionism, fauvism, expressionism, cubism, futurism, constructivism, Dadaism, and surrealism. Among these, nature appeared to be the creative drive in them. This paper therefore, examines nature inspired artworks in contemporary art development that filled a sense of constant anticipation and commitment to a system that thereby harnessed creativity from nature. The paper helps to understand the point of nature in art and how we have been building upon the structure we met on ground to ensure we attain a higher status. Nature and its built environment present diverse themes for artistic expression through the ages. This study is carried out using historical and analytical approach as it relates to Nigeria from 1950 to date. The article inclusively, provides a brief insight to selected European artist/artworks through available literature.

Keywords: Assessment, Nature, Contemporary, Visual Art

7.
SCULPTURE AND ADAPTATION; EFFECTIVE FORMS IN *ALLO*

ASOGWA Ifeanyichiukwu Fidelis,

Abstract

As sculpture tends to be increasingly misconceived, especially in traditional Islamic society, efforts are made to correlate or adapt popular craft to it for enhancement of its appreciation. Consequently, this research attempted adapting *allo* (slate) into sculpture, possibly for increased appreciation in the regions where it (allo) is valued. In the work-process, *allo* was analyzed and effective forms in it were identified, synthesized and used in creation of sculptures; six of which were presented in this paper. It was discovered that *allo* relates well with sculpture and gaps in their conceptions are bridgeable. Inclusion of traditional craft in the subject-contents of sculpture at all levels of education was then recommended for wider appreciation.

Keywords: Allo, Sculpture, Adaptation, Forms

8.

AESTHETIC RECYCLING OF PLASTIC BASED WASTE AS ADAPTABLE MEASURES TO CLIMATE CHANGE: A PROACTIVE REVIEW OF ADENLE'S PLASTIC ART WORKS

ARUEYINGHO Geoffrey Ajemijoye / ADENLE John Oyewole

Abstract

It is a fact that our environment, dumpsites and ocean possess large amounts of plastic contaminations. Apart from naturally induced climate change, human activities have also been reported to influence climate change through pollutions in terms of solid, liquid and gaseous waste emissions. The gases emitted into the atmosphere are not only harmful to human health but also increase the acidity of rain, which deplete the ozone layer, thereby increasing global warming. The thrust of this paper is to present a possible adaptability of human-induced climate change through recycling of solid waste especially plastic. The paper discusses the expressive use and exploration of such wastes as a creative medium in the art works of Adenle John. In his efforts to reduce the menace of plastic pollution, Adenle embarked on a creative exploration of plastic wastes turning them into statement pieces, which serve as commentary towards climate change. . Suggestions were made for other artists to explore this medium in the creation of works that can serve as social commentary, which can discourage harmful practices that affect the environment. The government and other relevant agencies should also encourage aesthetic recycling of waste, otherwise known as non-biodegradable plastics that are directly or indirectly dangerous to human existence.

Key words: Climate change, Plastic wastes, Ozone layer, Solid waste, John Adenle

9.

AN EXAMINATION OF ANTHROPOMORPHIC TERRACOTTA   SCULPTURES FROM THE NOK CULTURE.

AGADA, Ladi Onyi Andrea / BOYI, John Mallam

Abstract

 Many ethnic groups, societies and civilizations have their own cultural account of terracotta. The Nok culture is a culture, which provides us with evidence of ancient civilization through its unique terracotta sculptures that were made for thousands of years. Nok terracotta sculptures were discovered through various archaeological (discovery was initially accidental through tin mining) excavations that were carried out in different parts (Wamba, Katsina Ala, Taruga, Jos, and Kaura among others) of Nigeria by archaeologists. The use of terracotta in sculpture is one of the oldest professions known to mankind. This was demonstrated in the activities of the prehistoric people who lived and created some of the oldest and earliest forms of terracotta sculptures. It is evidently proven that terracotta as a medium in art has also been used from time immemorial in Nigeria by different ethnic groups, the likes of Owo, Ife, Dakakari, Calabar and the Nok, which is the focus of this paper. The Nok terracotta sculptures bear an imprint of history by the manner in which they represented their subject. The Nok terracotta sculptures show three different kinds of creatures; humans, animals and a combination of both called hybrid human-animal creatures all represented in

anthropomorphic forms. These terracotta sculptures with anthropomorphic forms contained social and religious information about the society in which they originated from. It is against this backdrop that this paper seeks to identify and discuss some selected anthropomorphic terracotta sculptures from Nok with a view to bring them to the fore. The paper further discusses these anthropomorphic terracotta sculptures by describing and analysing them.

Keywords: Examination, Terracotta, Nok, Sculpture, Anthropomorphic

10.
DESIGN AND DEVELOPMENT OF CERAMIC POUR FLUSH SQUAT PAN FOR SUSTAINABLE WATER USE AND ENVIRONMENTAL HYGIENE

MATHIAS Helga / ABUBAKAR Ezra / ABDU Sheikh Ubale

Abstract
Providing adequate sanitary facility such as a toilet to meet the sanitation and hygienic needs of the Nigerian population, which is increasing at more than 3% per annum; as well as reducing the economic, social and health losses associated with open defecation is the target of the Nigerian government. To achieve this target, Nigeria needs to provide toilet facilities to 102 million of its citizens. This study reports on the design and development of Pour Flush Squat Pan using a quadriaxial blend of 32 % Clay, 48% Kaolin, 8% Grog and 12% Feldspar. The body formed was tested for flexural strength, shrinkage and water absorption rates and then fired first to bisque temperature of 900^0C and to gloss temperature of 1220^0C in a reducing atmosphere. The results showed that, the formulated body has a flexural strength of 40.50 MPa, 0.5% water absorption of 0.4% and shrinkage rate of 10.5%. These values were within the range recommended for safety, hygiene and rigor of handing and use. The results also showed that, the developed Squat Pan require only 1litre of water to flush against 4 liters required by the dual flush toilet systems. This is a clear indication of the efficiency of the system. The study therefore, concludes that, the developed Squat Pan is not only water efficient and sustainable but will aid in boosting Nigeria's target of ending open defection by 2025.

Key words: Ceramic, Defecation, Efficiency, Hygiene, Sustainability

11.
AN EVALUATION OF DIGITAL PHOTO-MANIPULATION SOFTWARE USE AMONGST GRAPHIC DESIGN STUDENTS OF AHMADU BELLO UNIVERSITY, ZARIA
PALNAM Ijudai Musa / AZI J.I.
Abstract

The existence of technology in present day realities as regards globalization of every aspect of human life, presents people new opportunities, thereby expanding the tools of graphic design practice; hence the examination of the process involved in digital photo-manipulation with specific reference to the designer's capacity to manipulate images to fit specific aesthetic and utilitarian challenges using computer software packages such as Photoshop and CorelDraw. The goal is to integrate digital photo-manipulation technique into existing computer graphics being taught in the Department of Industrial Design, Ahmadu Bello University, Zaria. This is achieved, using a creative understanding of photo-manipulation to enhance the student's expressive skills. Using a descriptive approach, this study evaluated and explored digital photo-manipulation software used to enhance creative expression skills amongst graphic design students of Ahmadu Bello University, Zaria. The major instrument used for the collection of data for this study was structured Likert-scale questionnaires, which were purposely administered on the population in the research areas. Digital photo-manipulation is seen as a trendy computer graphic design skill that warrants free creative expression. Digital photo-manipulation is also flexible in enhancing the appearance of an image on a graphic design work.

Graphic design students of the Department of Industrial Design have been seen to require some exposure or sensitization on the benefits of this new and flexible graphic design tool, towards their competence in graphic design.

12.
THE RELEVANCE OF EBIRA TAO WEAVING TECHNIQUE IN SOCIO-CULTURAL INTEGRATION AND SUSTAINABLE IDENTITY OF THE EBIRA PEOPLE IN NIGERIA

SALAWU Nanahawa

Abstract
Cloth is one significant way of identification in Nigeria. It tells the nationality or society of the person adorned by it. Ebira-Tao weaving cloth is one, which serves the socio-cultural, political and economic needs of the Ebira people of Kogi State, North Central Nigeria. The patterns and styles of the woven cloth are significant for cultural identification, integration and sustainability of the people's culture. The extent of the cloth's uniqueness in the process of production can only be alluded to in comparison with other nationalities like the Yoruba *Aso Oke* weaving, the Ibo *Akwete*, the Tiv *Anger* and so on. This paper compares the weaving techniques and it differentiations in patterns and styles as a way of justifying the cultural essence of the Ebira-Tao cloth weaving technique in the growth and sustainability of the weaving industry in the face of globalization and competitions from Western Influenced mode of dressing. Although, cloth weaving is seen as a dying tradition across the societies in Nigeria, its patronage lately has soared significantly because of the new public policy thrust towards the use of local contents. The recognition and patronage of this form of clothing by the people serves not only as the promoter of the people's indigenous culture but as the custodian of a veritable aspect of its cultural reliance and sustainability.

13.
ARTPRENEURSHIP IN WASTE REPURPOSING: AN EXPERIMENT WITH PLASTIC WASTES FOR PAVING STONES

ADENLE John Oyewole

Abstract
Waste management especially solid waste has emerged as one of the greatest challenges facing environmental protection agencies in developing countries. Today people generate and dump refuse arbitrarily everywhere causing environmental hazards to human, land, ocean and marine life. However, "out of the eater came forth meat, and out of the strong came forth sweetness", so if proper attention is paid to our waste streams, "sweeter" things abound that would be of immense benefit to the Nation. Three experiments were carried out using plastic wastes (Plastic Dusts- PD, Plastic Shaven- PS, and Plastic Pellets -PP) independently as replacement for conventional use of aggregates such as sharp sand, granite and stone dust in production of interlocking paving stones. The objective of this experiment is to explore the suitability of this method as alternative against the traditional method (use of traditional aggregates), a more recent method of melting or heating plastics. The materials used were granulated and shredded plastic wastes of three (3) different aggregates, cement and water instead of the mixture of sand, stone dust, granite, cement and water to achieve concrete cast of stone block. A proportional ratio of each of the three aggregates, cement

and water was mixed into what constitute A, B, C. The result after curing shows that the three experiments have the same outlook; however, there are relative differences in the products of the aggregates PD- A, PS - B, PP-C. It was observed that C is the heaviest while B and A follow respectively. The reason adduced for this being the original weight of each aggregate. Thus the finding shows that aside the usual usage of conventional aggregates or mixture of melted plastic with sand, using grains, shaven and dust of granulated plastics would yield same result and be more economical. This will rid our environments of plastic wastes and give the repurpose plastics a permanent usage and aesthetic value.

Key Words: Granulated Plastic, Pellet, Repurposing, Interlocking, Aggregates

14.
THE ROLE OF PRODUCTION MANAGEMENT AND ITS FUNCTIONS IN THEORY AND PRACTICE OF INDUSTRIAL DESIGN

PALNAM Ijudai Musa / HASHIM Muhammad Bashir and PAUL James Oche

Abstract

This write up hinges on the discipline dealing with the development of products. Production management is the job of coordinating and controlling the activities required to make a product, typically involving effective control of scheduling, cost, performance, quality, and waste requirements. The application of management to the field of production has been the result of at least three developments, first is the development of factory system of production, secondly the development of the large corporation with many owners and the necessity to hire people to operate the business, and thirdly the work of many of the pioneers of scientific management who are able to demonstrate the value, from a performance and profit point of view, of some of the techniques they are developing. Industrial Design is a process of design applied to products that are to be manufactured through techniques of mass production. Managers have always had a vital role to play in ensuring the effective use of specialists and it is no different with industrial design specialists and their important role in an industry. In relation to industrial design, managers must be the integrators across all aspects of the process. This paper integrates the role of production management in theory and practice of industrial design.

Keywords: Production Management, Industrial Design, Development, Products, Coordinating.

15.
THE DYNAMICS OF VISUAL ARTS IN THE CHANGE AGENDA AND DWINDLING ECONOMY

IZOGIE Collins Ogieva / DIKENS Nwabuoku Kennette

Abstract

For Nigeria to remain viable in the present global competitiveness, she needs to focus her attention on employable skills which can be acquired through visual arts education and training. Visual arts focus on the production of art objects that cater for human needs. It is a tool for curbing the menace of unemployment, poverty and youth restiveness in the society. Investment opportunities in the visual arts are numerous, ranging from ceramic technology, graphic design and advertising, photography, furniture design, painting, textile technology and fashion. Other related investment opportunities are in the area of crafts technology. This paper therefore attempts to examine the concept of visual arts as a veritable means for sustainable economic growth and development, in the change agenda and dwindling economy. The paper will also be looking at the investment opportunities in the visual arts in a dwindling economy. It was therefore recommended that for Nigeria to achieve the global millennium goal target, the government should develop the political will to be consistent in the implementation of her policies that promotes Visual Arts. It was therefore concluded that visual arts provide the education and training for the individuals to acquire intellectual knowledge and skill of the complexity of a global business and manpower for content development.

Key words: Dynamics, Visual Arts, Skills Acquisition, Change Agenda, Dwindling Economy

16.

CERAMIC STUDIO PRACTICE: A SKILL NECESSARY FOR ENTREPRENEURSHIP DEVELOPMENT IN NIGERIA.

SATSI Stephanie Gyenom

Abstract
This paper underscores the importance of policy formulation in entrepreneurship development and the importance of entrepreneurship in reducing the ever-growing rate of unemployment in Nigeria. It opines that ceramic entrepreneurship development is lacking in Nigeria due to certain challenges such as epileptic power supply, lack of genuine support for those intending to start a ceramic businesses, lack of strong entrepreneurship mindset, and lack of entrepreneurship education. All these and more inhibit entrepreneurship development. The paper concludes that entrepreneurial courses should be taught from primary up to tertiary level in educational institutions. Also, government policy on entrepreneurship should create conducive business environments to enhance entrepreneurship development in ceramics. This would go a long way in creating employment opportunities

Keywords: Entrepreneurship, Ceramics, Studio Practice, Development, Policy

17.

SELF CONCEPT AND EMOTIONAL ELEMENTS IN PRODUCT BRANDING: A CASE OF APPLE

HARUNA Naomi Andrew / SYLVA Christine

Abstract
Understanding consumers brand relationship has become increasingly popular as a theoretical lens for understanding consumer behavior (Aaker, 1997; Fournier, 1998). Consumers are known to form strong relationships with products and services that have value and personality associations that are congruent with a consumer's self-concept (Sirgy, 1982). In a recent evaluation, studies have demonstrated that strong consumer-brand relationships enhances consumers' brand loyalty, durability of brands and consumers' willingness to pay a premium price. This paper investigates how self-concept plays a role in developing emotional elements of branding leading to brand loyalty. Data collection was collected through an in-depth interview of a representative group of Postgraduate Students. The paper used qualitative data collection method, Data analysis was done using the constructs of self-concept and brand loyalty. The findings reveal that self-concept have positive influence on consumer love for a brand, connection with the brand and also brand loyalty.

Keywords: Self-concept, Product branding, Brand loyalty, Emotional elements, Brand love

18.

PRACTICE-LED AND PRACTICE-BASED RESEARCHES
ADIWU Talatu Onkala / Professor MBAHI A. A.

Abstract
This article is written to dispel myths and the misconception that the arts are warm, fuzzy, feel-good part of our lives that is nice but not necessary. It seems we have been looking in the wrong place/direction to find out what is important about the visual arts. There is need to start with artwork. The paper reaffirms that the imaginative and the intellectual works, undertaken by artists are forms of research and the critical and creative investigations that occur in studios, galleries, or the internet, in community spaces and other places where artists work, are forms of research based on studio art practice. Rather than adopting methods of inquiry from the social sciences, the research practices explored subscribe to the view that familiar research goals can be achieved by following different yet complementary paths. What is common is the attention to a systematic inquiry in a way that privileges the role imagination and intellect play in constructing knowledge

that is not only new but has the capacity to transform human understanding. Substantial questions were raised in the early 1970s and 1980s about the theories and practices of the visual arts and whether studio inquiry could feasibly be considered to be part of the university research community. Artists who work in university also teach, but the question is: Do they do research? Artistic research is also seen as "practice-based research" and can take form when creative works are considered both the research and the object of research itself. Art-based research was first formally cited around the mid of 1990s (Sullivan, 2010). Art-based educational inquiry describes and interprets phenomena whereby seeing or sensing is the basis for compiling thematic patterns of evidence from which meaning is made vivid. It is based on artistic practices, methods and is artistic. It aims to enhance knowledge and understanding with presentation of the arts. In artistic research, perhaps more so than other disciplines, intuition is utilized as a method to identify a wide range of new and unexpected productive modalities.

1.
THE CONTEMPORARY WOMAN IN A CONSERVATIVE CULTURE: JULIE OKOH'S *OUR WIFE FOREVER* TO THE RESCUE

Barth OSHIONEBO/ Joseph Tyoakula ANDE

Department of Theatre Arts, University of Abuja, Abuja
barthoshionebo@gmail.com/meetjoeande@yahoo.com

Introduction
Women related literature abound. Awareness both by women and men who sympathise with the course of women upliftment is on the rise. The notion of the woman as a 'second class citizen' is gradually becoming a thing of the past occasioned by the ever increasing campaigns to better the lot of women and put them on the same pedestal, side by side with their male companions in Nigeria, Africa, and the entire world. Nowadays there have been these clichés like *'what a man can do, a woman can do better'*, '*beside a successful man is the woman'* and no longer *'behind a successful man is the woman'* etc. The word 'behind' is now looked upon as derogatory due to the current debates and demands for equality; "side by side" is now a point of emphasis to uplift the status of women.

All such arguments and concessions are coming on the heels of the agitation that, discriminatory practices against women be discarded to enable women participate without encumbrances in cultural and political activities. Lewu (2015:563) identifies some of the discriminatory practices against women to include the 'home, school, work and... unequal feeding practices to cultural norms...'that prevent the women from being on the same page with their male counterparts. As part of discriminatory practices against women Lewu points out that among the *Lelna* ethnic group of *Zuru* Local government area of Kebbi State, women are not allowed in 'their menstrual period, to cook for men, to drink from the same source with their husbands' and such other practices (2015:564). These and many other such issues and practices weigh women down and prevent them from feeling free to mix, interact and contribute meaningfully to the growth and development of their various societies. The situation presently is fast changing particularly as a result of the phenomenon termed globalization. This is a situation where people and events are mirrored through the tube and internet for the mutual benefit of all. This interface has become a turning point in the history of the media, which has offered the framework for the actualisation of the exchange of ideas in contemporary times.

Culture: An X-ray

It has become very popular that culture is the total way of life of a group of people, which includes a combination of language, love, eating habits, celebrations, inhibitions, marriage, religion/beliefs and many more. The word group refers to a community or society and it varies from one place to another. It shows that because of the differences in such communities or societies these practices also differ. Definitively, there is a legion but no particular one has been completely singled out and accepted. Many of them point out certain key elements that are common and can be observed in the interaction of people at various levels.

Perhaps, this definition of culture is more practical and popular in the sociological parlance: "Culture is defined as the complex whole of man's acquisition of knowledge, morals, beliefs, arts, custom, technology, etc., which are shared and transmitted from generation to generation" (E. B. Taylor in Otite & Ogionwo, 1994: 44). Culture therefore, remains a walking question mark with its diverse identities in different societies and communities around Africa and the entire universe. That is to say that what is acceptable in community 'A' may not be acceptable in community 'B' in the same manner.

Tile (2015:11) observes that, "culture is both static and dynamic" adding that: "... Culture taken in its widest ethnographic sense refers to all that we do by ourselves and all that others do for us in conformity with our indigenous requirements and circumstances towards the perfection of our society." Tile points out that those static elements of culture are those that last very long without being affected by the changing environment citing the example of language. He maintains that those aspects of culture that change with time include 'mode of dressing, hair style, and eating habits...'

Furthermore, Geertz in Kottak (2000:62) looks at culture as, "control mechanisms- plans, recipes, rules, constructions, what computer engineers call programs for the governing of behaviours". In other words, Geertz is simply saying that culture is a set of guiding principles for a particular group of people that ensures harmony and cordial relationship. It therefore, goes back to the earlier point established about culture as a way of life of a group of people in a society. When these rules are strictly adhered to, peace becomes the order of the day- what is desired by all peoples and societies around the universe. The prescriptions of culture all over the world are such that guide behaviour within the ambit of the territorial or geographical situation of a community concerned. These prescriptions Tile (2015), observes are created and carried by the same members of a society and handed down from one generation to another. As Tile however, observed earlier, while some aspects of culture change with time others remain static, it is believed that in the era of globalization many of these changes that have occurred have affected our psyche.

The Contemporary Woman

The New Lexicon Contemporary Encyclopaedic Dictionary defines *contemporary* as "belonging to the same time (pop) modern..." (211) which can be interpreted at present times (Lorimer, (Ed) 1995:211). Present times because we are looking at the entire world as one global village where information about happenings in the village are distributed simultaneously through the internet and digital television, information communication technology. What therefore, happens elsewhere is transmitted through the same information communication technology and this gives the impression that such an event is taking place at the backyard, around and almost within the same vicinity. There is therefore, that interface and exchange of ideas as they are imbibed and practised as fashion in terms of clothe designs and other modes of behaviour.

The woman in this digital era seems to be more modernized- a breakaway from those conservative cultural practices that tend to place more restrictions on her behaviour as well as manner of doing things generally. This is so because the contemporary times have offered so much, both to the woman and the man as well. We have education which has changed a lot of behaviour of the past to what is happening globally; there is also the religious angle which has also contributed immensely to behavioural change to modern practices. These have offered very strong opposition to cultural practices that are defined by these forces as barbaric. For instance, in the Niger Delta area of Nigeria,

> ... The oldest woman in a gathering cannot be served a drink before the youngest boy. Thus a woman cannot be given recognition as the oldest person in a community... the man that does not grow beards on his chin; he is looked upon as a 'wizard, who has to be buried in the evil forest (Ayakoroma, 2015: 15-16).

These are some of the issues that the contemporary woman doesn't seem to be at home with. However, Ayakoroma notes that sometimes the woman of today could be the architect of her fate citing also the case of 'a pastor's wife who could dump her 8-month-old baby and go away from her matrimonial home...' (Ayakoroma, 2015:18). How else can one describe this behaviour of a modern or contemporary woman, a pastor's wife at that, to exhibit this kind of abominable action, as if she didn't go through labour pains? This therefore, is a mix-grill that houses 'the good, the bad and the ugly' put together. Contemporariness and/or modernism is therefore a double edged sword even though it is expected that its advantages are more in number than its disadvantages.

Synopsis of *Our Wife Forever*
Events in *Our Wife Forever* revolve around *Victoria*, a widow, who is harassed by her brother-in-law *Thomas* for inheritance. *Victoria* is confronted with barbaric, superstitions and dehumanising practices disguised as customary funeral rights, following the death of her husband. She is compelled to perform a series of inhuman rituals like shaving her hair, sitting on a mat on the hard ground throughout a specified period, demobilisation, her accompaniment by her late husband's paternal uncle to the evil forest, the discarding of all the things she used during the forty day funeral period and most barbaric of all, drinking some water used in bathing her late husband's corpse. With extreme revulsion, she rejects the drinking of such water used in bathing her late husband's corpse and her action is considered an abomination. As a consequence of this so called abominable act, herself and her children are denied certain privileges in the community. She is subjugated and oppressed by *Thomas* who represents tradition and her late husband's custom stricken people. *Thomas* takes away his entire brother's property and leaves *Victoria* alone with nothing. Even the house *Victoria* built with her late husband is threatened and the matter goes to court for adjudication.

In the midst of the oppression and dehumanization however, she finds solace in the ever-available kindness, care, love, and encouragement from *Felix*, her late husband's bosom friend. *Thomas* makes several attempts including professing love to *Victoria* in a bid to inherit her and her late husband's property claiming his actions are in line with their customs and tradition. *Felix* tries to reason him out of his unenlightened ideas but these attempts fall on deaf ears. *Thomas* brands him (*Felix*) as an "opportunist" instead and warns him to stay away from *Victoria*. Despite *Thomas*' attempts to subdue *Victoria*, she remains resolutely impenetrable. Having tried and failed, *Thomas* resorts to filing a case in court against *Victoria* concerning the inheritance of her husband's property. With the help of *Felix*, *Victoria* wins the case which gives her total liberation and

emancipation from the shackles of *Thomas* and his deadly customs. *Felix* professes and proposes to *Victoria*, and with the consent of her children, she accepts to marry thus marking the revival of complete happiness, something she lost since the demise of her husband, *Hector*.

The Contemporary Woman in *Our Wife Forever*
Victoria is a modern woman in Julie Okoh's *Our Wife Forever*. She is well schooled and perhaps very religious too. In phase I of the play, when *Felix* visits her he asks:

> *Felix*: Wait a minute! You are wearing *Hector*'s clothes?
> *Victoria*: Yes I am. By his death I have stepped into his shoes as the head of this family. So also I've stepped into his clothes for comfort and support (P. 15).

To *Felix*, it is surprising that *Victoria* is wearing *Hector*'s, her late husband's clothes. In modern times, this is possible and there are no qualms attached especially in a fashionable period where men's dresses are now unisex. Before now, this was abominable, first for women to wear men's clothes and second a dead man's clothes at that. *Victoria* however, finds comfort in her husband's clothes as well as support pointing to the fact that the spirit of her late husband still abides.

Talking about the traditional ritual rites the widow has to go through at the funeral makes one sick. *Victoria* herself describes these as horrible. She recounts:

> *Victoria*: I didn't really mind shaving my hair. Though, I could hardly control the tears that were streaming down my face, some women made it their duty to see that I cried at dawn everyday...
> I was made to sit on a mat on the hard ground throughout the period...
> Moreover, hands were crossed, tied in front of me... I couldn't use them for anything... if I had an itch in any part of my body; I called on someone to help me scratch the itching spot... At the end of the forty days' burial rites, in the middle of the night, around 2am, I was accompanied by his paternal uncle to the evil forest.
> *Felix*: For what?
> *Victoria*: To throw away all the things I had used during the forty days' funeral period, including clothes, mat, dishes and so on. If you saw me that night, I was terrified as we moved through those narrow bush paths...
> *Felix*: You don't mean it.
> *Victoria*: I mean every word of it. It was only after then that I was allowed to take my bath for the first time since his demise (P. 21-22).

These are some of the humiliating rituals the woman has to go through at the death of her husband. Most times, this occurs because members of the conservative tradition believe and accuse the woman of killing her husband, but for goodness sake which woman wants her husband dead under normal circumstances? Records hardly exist where, if the wife dies first, the man is subjected to any percentage of what the woman passes through in the event of her husband's death. However, this woman, *Victoria*, an epitome of contemporary times and dynamic norms devises ways of taking care of herself in the face of these health challenging, so called customary funeral rites. For instance, she objected to taking 'meals from disused dishes,' as *Felix* asks her:

> *Felix*: Did you really fulfil all those expectations?

> *Victoria*: Partially, it is true I didn't take my bath for forty days. However,
> each day before dawn I would quickly brush my teeth, wash my
> face and clean up my private parts before they wake up (P.23).

Accordingly, the oath taking day came and she was taken to the room where the corpse of her husband, *Hector* was, stripped naked, she agreed to swear that she had no hand in her husband's death. After the oath, a wet towel was used in scrubbing Hector's body and after that some liquid was squeezed into a bowl and given her to drink and she reacted thus:

> *Victoria*: I was overwhelmed with shock and disbelief. I didn't know when I
> knocked down the bowl of water and fled the room (P.23).

And the reason for this action is to prove her innocence. Now who says if you drink that kind of concoction, man or woman, you will not be sick? In addition, how many times have men been subjected to this unwholesome treatment at the death of their wives? This is unhygienic no more no less. *Victoria*'s courage to pull down the bowl housing such unclean water is 'salutable'. She asks "how could I have caused his kidney failure?" (P. 24).

Furthermore, the archaic and conservative nature of tradition gives *Hector's* people the 'right' to inherit his property and so they empty that house and leave *Victoria* with the empty space. As if this is not biting enough, *Thomas* who represents *Hector*'s people demands for the house itself, but, the court returns the house to *Victoria* and her children. To add insult to injury, *Thomas* wants to inherit *Victoria* claiming customs prescribe so. He intimidates her as much as his wits can lead him. At one of such encounters this argument ensues:

> *Thomas*: (*kicking Felix's buttocks from behind, THOMAS' cap drops down,*
> *rolls to a distance before stopping*.) What's going on here?
> *Felix*: What did you do that for, hitting me on my buttocks?
> *Thomas*: Shut up your dirty mouth.
> *Felix*: That's not gentlemanly at all!
> *Thomas*: Is it gentlemanly of you to sneak in here to meddle with my
> intentions?
> *Felix*: I don't know what your intentions are, or how I have meddled with
> them (P, 27-28).

One wonders whether the customs prescribe aggression if you want a woman. At some other instance *Thomas* comes into *Victoria*'s house with accusations thus:

> *Thomas*: But I saw him over you. What were you doing with him on the
> floor? Answer me quickly.
> *Victoria*: We were doing something on the floor?
> *Thomas*: Yes on the floor of your living room! Don't you have any shame at
> all? People will hear this.
> *Felix*: Blackmail! That's pure blackmail! (P, 30).

This is intimidation enough but *Victoria* calmly shows him the door to use to go and narrate to people the 'abominable'. *Thomas* uses the same approach of intimidation on all matters to milk *Victoria* of perceived wealth of his brother, late *Hector*. Having failed in all his attempts to seduce *Victoria*, *Thomas* thinks if he asks her to pay back the bride price which the family paid to marry her she will submit in the following conversation:

> *Victoria*: What gave you the privilege to have control over me?
> *Thomas*: As long as you continue to answer Imodu, you are our wife.

> *Victoria*: If it will make you feel better, I'll change to my maiden name.
> *Thomas*: Will you also pay back the bride price paid on you?
> *Victoria*: Fine! How much was it? Nothing to cause me sleepless nights!
> *Thomas*: Don't forget to include the interest and inflation variations. You were married for about twelve years... (P. 36-37).

Victoria refuses to be intimidated by all these antics because she can afford it since she was not totally dependent on her late husband. She insists that she cannot be inherited like an immobile and static property and that she deserves and possesses the right and conscience to decide what she wants. She refuses to appear before the council of elders because according to her "the council is made up of men and they are all biased against women" (P, 52). She asserts further that the old women in the council are dormant 'all they do is concur with the men in whatever they decide' (P, 52).

Conclusion

Victoria Imodu, the major character in Julie Okoh's *Our Wife Forever* should serve as a source of inspiration for other women who may find themselves in similar situations. Death is inevitable and as Yashi, (1998:5) notes, it is a debt each and every human being owes God. At the appropriate time everybody would pay, that is, return to God. If *Victoria* survives all forms of intimidation via the crude and conservative cultural practices others can take a cue from her courage. Note should be taken of the fact that in all her tribulations and provocations she exerts firm control of her emotions and so nowhere is it reported that she is nasty or insultive. This one believes, is as a result of her interaction with modern trends of events in form of Western education and of course religious teachings, which combine to form a balanced contemporary woman.

In modern health prevention, we are told of the existence of microorganisms that are harmful to our health when *Victoria* remembers this and refuses to drink the water with which her husband's corpse is washed. She uses her exposure via education to tell *Thomas* off with his conservative and selfish traditions. She also finds time between her incarceration to brush her mouth and also wash her private parts as against the wishes of the so called tradition. In all of these protests and refusals to participate in decadent customs, there is no tragic confrontation. She employs the use of dialogue to overcome static/rigid aspects of her husband's tradition. *Victoria* is indeed a character that symbolises a great woman created by Julie Okoh, juxtaposed with ancient conservative customs and given her victory as the character's name implies, in the face of demeaning, domineering and decadent cultural prescriptions and practices.

References

Ayakoroma, B. F. (2015). Introduction *in* Gender Discourse in African Theatre, Literature and Visual Arts: *A Festschrift in honour of Professor Mabel Evwierhoma* Ezeajugh, T. U. and Ayakoroma, B. F. (Eds.) Craft Books Ltd, Pp. 15-16 and 18.

Harris, M. (1971). Culture, Man and Nature: An Introduction to General Anthropology. New York: Thomas Crowell Company.

Jenkwe, T. E. (1998). Yanmoel Yashi: A Study of Tiv Oral Poetry. Aba: AAU Vitalis Book Company, P. 5.

Kottak, C. (2000). Anthropology: The Exploration of Human Diversity (8th Edition) New York: McGraw-Hill Higher Education, P. 62.

Lewu, M. A. Y. (2015). Discrimination against Women in Nigeria: An Overview in Gender Discourse in African Theatre, Literature and Visual Arts. *A Festschrift in honour of Professor Mabel Evwierhoma*. Ibadan, Nigeria: Kraft Books Ltd, Pp. 563-564.

Lorimer, T. L. (Ed), (1995). The New Webster's Encyclopaedic Dictionary of the English Language. (Deluxe Edition) USA: Lexicon Publications Inc., P. 211.

Okoh, J. (2010). *Our Wife Forever*. Ibadan: Kraft Books Ltd, Pp. 15, 21-24, 27-28, 30, 36-37 and 52.

Otite, O. and Ogionwu W. (1994). An Introduction to Sociological Studies. Ibadan, Nigeria: Heinemann Educational Books (Nig.) PLC, P. 44.

Tile, W. S. (2015). The Cultural System of Thought in Nigeria; Standing on the shoulders of Giants. Abuja, Nigeria: Shanco press Ltd, P. 11.

2.
THE PLACE OF FOLLOW-UP IN COMMUNITY BASED THEATRE: AN EVALUATION OF THE ABU FUNTUA EXPERIENCE

ABODUNRIN, Olusegun/ AKOH, Jimmy
Department of Theatre Arts
University of Abuja
okabodunrin@gmail.com/ jimmy.akoh@gmail.com

Introduction
Most development projects have often adopted a top-to-bottom approach in their conception and execution of programme activities. The "top-down" approach in development is predicated on the principle that recipients of development are passive and ignores the fact that they have useful knowledge and skills. This process has resulted in alienating local beneficiary communities. Thus, many projects, though laudable, have failed to bring about changes in the lives of the rural dwellers because they have not sufficiently sensitized and mobilized the masses, and often ignored the people's indigenous and traditional wisdom and knowledge. The rural people then see such projects as an invasion of their culture and lifestyle, and refuse to meaningfully participate.

Theatre in the hands of the dominant class cannot be said to have always targeted participatory development, but influenced by Marxist thought, Bertolt Brecht attacked the dominant classical style of his era and through theatre attempted to give the people ample opportunity for critical thinking. Augusto Boal improved on Brecht when in his theatre he proposes a theatre where the people through participation become empowered leading to action and change. This has sparked off various participatory theatre practices in the world presently.

Community Theatre as a development strategy is based on the theory that people, especially underprivileged communities in rural or semi-urban areas, relate more to development programmes in which they become and are seen as active participants, rather than passive recipients of development assistance. Community Theatre thus, relocates indigenous cultures, from the periphery to the very centre of the community, and makes it an integral part of the communal planning and decision-making process. This type of development, while taking a new dimension in relation to the process earlier noted, according to Gbilekaa (1997), "Relates to the widening of the intellectual horizon, the raising of consciousness and the encouragement of dialogue and participation in issues relating to the peoples economic, political religious and social realities within their environment." It is a development whose definition, observes Nasiri (1993):

> Implies a comprehensive and qualitative growth and improvement of society … with regard to the individual and collective life of its citizenry; and thus engenders an approach which employs all paradigms at its disposal in the process of achieving its goals. It is therefore, an approach which is committed to using theatre [in its totality] as a relevant medium and language in mobilizing people, particularly those in rural communities, towards self-reliance and development" in both a participatory and interactive manner.

The Western origin of community theatre has been traced to the work of Paulo Freire and Augusto Boal in available literature. The success of South America's experience has a significant impact on the development of community theatre practice in Africa. It has been implemented in Tanzania, Mali, Burkina Faso, Zimbabwe, Zambia, and many other countries to facilitate community

development. Community Theater, which is also known as development theatre was very successful in the 1980s and 1990s. In Kampala there are hundreds of small-scale theater groups, such as *Bakayimbara Dramactors*, that give improvisatory performances on a range of contemporary local issues in Luganda. Popular among community theatre in Botswana is the *Laedza Batanani* Popular Theater project in, which started in 1974 and has become an annual event since then. These troupes use their drama projects to examine problems ranging from cattle theft, inflation, and unemployment to education and health.

Origin of Community Theatre in Ahmadu Bello University, Zaria, Nigeria
Over the past three decades the Drama programme of the Ahmadu Bello University Zaria has theoretically and practically engaged its staff and students in the field; experimenting communication for development through drama. This experiment is a yearly tradition that has created a good relationship between the University, the neighbouring communities and other parts of the country. This practice is traceable to the establishment of the Drama programme in the University in 1975. Michael Etherton, who joined the University then, was instrumental to both the establishment of the Drama programme and the development of the community project, as he became the Head of the Drama programme. The Drama programme as it were then was and still is integrated within the Department of English at the University. This development was spurred by a practice which was already gaining prevalence within the South African region, especially Botswana, and in Zambia where theatre had quickly assumed a means of addressing community's problems; and based on Etherton's experience from such background. Etherton (2004) is unequivocal in acknowledging this fact. He affirms in an interview with Adelugba that:

> I was highly influenced by the work in Botswana – partly because Botswana work had developed from the work we started in Zambia. Initial efforts in this direction or experimentation however, had been largely with University drama teachers on an unofficial basis but later extended to University students, adult educators and literacy officers, and young peasant farmers, in making plays which situate the problems of oppressed groups in a wider social analysis.

The need for a community focused theatre in A.B.U., Zaria arose out of the desire to make theatre more functional to the outside community and to also depart from the academic-centred type of theatre. The move was also to present the rural man as one capable of not only creating but also appreciating and enjoying theatre. Interestingly, it is the actual process of this experimentation that is most crucial, as it carries the thinking of the whole group forward. To a great extent, according to Oga Steve Abah, a Professor of Theatre for Development (TFD), pioneer member of the TFD in ABU, Zaria and currently the Director of the Institute for Development and Research at ABU, in Abah (1989):

> The thinking behind the community orientation was to make theatre available to people outside the University Campus. This was to break from the tradition of a purely academic focus. The programme wanted to show that ordinary people can also enjoy and appreciate theatre. Secondly, the intention was to relate theatre to the realities of society and the problems as well as the aspirations of the ordinary people.

Abah's position is further buttressed by Etherton (1982), who explains that:

> Taking theatre to the people outside the university was a demonstration of the concern of the academia with the welfare of people outside the campus. Perhaps, drawn out by the frustration of scanty development being witnessed in communities or a desire to be involved as catalysts for change, ABU Zaria Drama Unit made community theatre work, an essential aspect of theatre pedagogy.

Community Theatre operates on two levels in ABU the Community Theatre which started in 1975 and the Samaru project (a later development) which started in 1980. The Samaru project (presently a second year course) is designed to prepare first year drama students for Community Theatre, which is more engaging, in the third and or the final year.

The Samaru Project
The Samaru Project is a street theatre project which was designed and projected to relate to the immediate neighbourhood of the University community, Samaru – the community hosting the University – by "taking … performances to them" (Abah and Etherton, 1985).This is a development that is hinged on the backdrop of the philosophy of the Zambian playwright and theatre activist, Kabwe Kasoma who was quoted as saying that " the idea is you take theatre to the people, instead of expecting the people to come to the theatre" (Abah, 2005). Abah further explains that "the crucial underlying intention of the Samaru Project is to raise [the] consciousness of the people through a process of research, play-making and performance".

According to Samuel Ayedime Kafewo (2004):

> The Samaru Project is the second of the two courses that involves students interacting directly with the outside community. This is done in the second year or what used to be part one of the drama programme of ABU. The other is Community Theatre in the third year, which is rather corollary to Samaru Project. At this stage, students must have of course received basic training not only in the style and techniques of performance, but also in gathering information or research.

The Samaru project involves students in creating plays about the problems of Samaru village. These problems range from sanitation, overcrowding, drug abuse, prostitution, unemployment, gossip etc. The problems in Samaru village are those one could identify in most semi urban communities. The project was tagged "Wayar da kanjuna" (mutual enlightenment). The 'Migrant' method of data collection is used. The plays which are eventually created from the information collected from the Samaru inhabitants are taken back to them for consumption after which there is a post-performance discussion.

Though the plays made attempts to reflect the people's problems, the people hardly participated in the crucial stages of the creative process. They were involved only at the data collection stage and the performance and post-performance discussion not as participants put as recipients. The students prejudiced the interpretation of the data because the people were kept out of the creative process. The audience is simply made "passive recipients" of an already finished product which was at variance with the premise on which Freire and Boal's theories were founded.

Freire (1988) had taken a swipe at the educational system in Brazil, which he considered "dehumanising" because it considered the oppressed native (colonised) unintelligible and must be taught everything (by the coloniser). A student was seen as one incapable of thinking. Freire observed the people had been reduced into passivity. Such condition provided fertile ground for the cultivation of the "culture of silence" through what he calls "banking education". It became quite obvious that no educational system is without intended goals. A totalitarian, one-off "banking education" which only teaches the student to be a passive recipient incapable of contributing his input into the creative process was therefore unacceptable to Freire.

He opposed a situation where the student was made the unquestioning banker while the teacher or the theatre worker or the development 'expert' was the sole monopolist of knowledge. This type of education where there is no symbiosis that allows feedback from the student to the teacher, Disai, Gaurav (1990) suggests is "a process of instruction in the power structures of society" whose supreme aim is "to teach people how to adjust successfully to the social role they may be called on to play without questioning". Aligning with Freire, Gumucio-Dragon (1994) posits that real education "engenders a process that instills in each individual a level of consciousness necessary to develop his or her creative potentials, to achieve independence, solidarity and justice".

As a response to this conformist practice of education Okwori (2008) captures the limitations in the Samaru Project which he said is severally described as a migrant method in the following words:

> The first year students ... go to the community, and after they finish the programme the community never saw anybody again until another first year students go again next year. And so this was beginning to pose a problem. The exercises were asking people about their problems ... not proffering solutions, and the students didn't have the capacity, the department did not have the capacity to intervene or bring about any positive change in the lives of the community people as a result of the theatre. So people were getting fatigued ... you came last year, what did you bring? This year then you are coming to ask us of the situation, and the situation has not changed for us. So there began a lot of critique from the people.

Though the Samaru project has not produced such positive results as the Community Theatre project, the response from the Samaru inhabitants has been very impressive. They have reciprocated by asking students to perform in the annual 'Kalankwa' festival.

Community Theatre
In the Community Theatre Project, a workshop village is selected, preliminary consultations are made with the community, and then students are brought in for a period of one week or two to stay in the village together with the villagers. They eat their food, share in their everyday work, do the same chores with them, and together the community will begin to develop rapport, they will begin to break down their differences and begin to have trust. And once they have trust, they will be able to share problems and together plays will be devised based on the information collected through interaction with the community dwellers. Previously, the Community Theatre was a second year course but it is now a third year course which is an upshot from what is obtainable in the Samaru Project. The critical shift now is the process - that in engaging in the process of play creation, the people themselves are developing a sense of awareness and a sense of knowledge about their problems. This approach like Okwori noted, is meant to help the community to evolve strategies for dealing with their problems.

The Community Theatre project in ABU has been transformatory. At its earlier stage, villagers' participation was very minimal. For example, the Soba project (1977), the Operation Feed the Nation (OFN) Campaign in Obasanjo's regime, which was titled "Wasan Manoma" (A Farmers Play), involved the farmers only during the research and performance and post-performance discussion. The "outside-in" method which was used here did not leave any skills behind with the villagers to enable them continue with the project. The need to transcend that level manifested itself in the Maska project (1979), Bomo (1980 – 1984), Tudun Sarki (1981) in which members of the community were actually involved in the process from the research, problem identification, analysis of issues and problems, scenario-making, dramatisation, performance and post-performance discussion.

In the Bomo project for example, a group of peasant farmers from the village sat down with theatre workers from the University to discuss their problems. They also participated fully in the workshop. The villagers played very decisive roles in the plays that emerged out of the workshop. Usually, the workshop was led in such a way that it was critique-oriented.
When eventually the play was performed before the villagers, most of them joined because they had seen their friends playing their lives. At this state, theatre was actually being transferred to the rightful owners. It ceased to be the monopoly of the few within the confines of the University. They could now use theatre as a tool for informal education which teaches them to question their present realities, and to challenge those structures that had always tried to suffocate them. In trying to make the villagers to seek an alternative solution to their problems and suffering, performance-oriented focus was de-emphasised.

According to Illah (1982):
>It is not just making a play and taking it to the village for performance; it
>is the process of making the play, the process by which all of us,
>peasants and students come to a form of consciousness; and it is this
>"form of consciousness" which spurs the people into action.

The consequence has crystallised in the formation of two base groups in Bomo – The "Kungiyar Samarin Manoman Bomo" (Bomo Youth Farmers' Club), and "So Dangi" (Love Your Neighbour). These two groups now make their own plays independent of the outside group from the University. They have also registered as Youth Development Organisations with the Nigerian Popular Theatre Alliance (NPTA), a Non-Governmental Organisation. They engage themselves in development projects in their communities.

Community Theatre as action research is a strategy that utilizes different communication tools to provide a stimulus for thought and action. The core essence of participation process of the theatre can be found in the fact that the workshop experience is a collaboration between the workshop catalysts and the people for whom the change is desired. Okwori (2004) describes it as "a research process that tries to diminish the barrier between the researcher as a collector of information and the researched as the supplier of it". As a collaborative experience between two, it becomes an occasion for gaining and creating knowledge. This is because "both parties are engaged in a situation of learning and sharing experiences which allows for deep exploration, analysis, and discussions that help people get better understanding of issues around them and think of how to improve their lives" (Kafewo 2004).

To this end the methodology usually involves a designed process that includes the following stages: Preliminaries, Community Research, Data Analysis, Scenario building, Rehearsals, Performance and

Post-Performance discussions, and Follow Through. It is important to note however, that this design is not fixed. It can be amended depending on the circumstances and the situation of a particular workshop.

Step One: Preliminaries- This is a stage where students as theatre animateurs pay a visit to project communities to discuss the project, its modalities and logistics. Permission is sought from the community's relevant authorities and initial basic information about the community is collected. Once an agreement is reached with the community as regards the project, the organizational and operational arrangements should be determined by them or with them. Okwori (2004) notes that: "the preliminary stage is very important as it helps to identify available communication channels, traditions and cultural factors without which the project cannot happen or succeed". When this is done, the stage is set for the team to move into the community.

Step Two: Community Research- To begin the TFD exercise, it is important to objectively articulate the community's problems/issues as seen by the people themselves. By this, the people are involved in their own research rather than external forces coming to determine what their problems are. In this participatory approach, the team of participants associates freely with the community, living with them, eating with them, "sharing in their daily activities, while at the same time observing and respecting the different traditions and values" (Ahura, 1990). The main information gathering systems are discussions and sharing of experiences, observations from walking around and taking part in their performances and interviews. These are crucial processes for general acceptability and participation. Daniel and Bappa (2004) explain that, "community research could take some days depending on the duration of the project to be undertaken". They elucidate further that, "the TFD practitioners must ensure that every attempt of sentimental and emotional tendencies is avoided in terms of language, appearance and general conduct".

Step Three: Data Analysis- The information gathered from the community research is then presented at an open community forum. They are extensively discussed by everyone in-terms of how the issues came about, their effects, what can be done and to what consequences. At this stage, care must be taken to avoid attitudes of blaming one party against the other. Objective dialogue that protects and assures a collective advantage is important. The practitioners' sense of diplomacy and rationale is well needed in such an open forum.

Step Four: Scenario Building- Having produced the raw materials for performances, it is now time to search for the story that will highlight and link the problems in a dramatic way, such that will provoke discussion and challenge people to take action. This is the point where appropriate cultural forms are identified and integrated. You should take care to allow the story evolve from the general sensibilities of the people. The scenario should be a plan of action which addresses the changing perspective of the community. You should facilitate the process of the story creation. You may use real life stories of the people in the community which illustrate the negative consequences of the conflict and how beneficial it will be if they decide to come together and work together. In doing this, always ensure that the entire community is involved.

Step Five: Rehearsals- In conventional theatre, performances are considered the most important focus of a theatrical activity. In community theatre, rehearsals assume greater emphasis. This is because emphasis on community theatre is on the process. The rehearsal process involves the people trying out how to play the characters and dramatize the story. As they do so, they increase their awareness and understanding of issues at stake, thereby getting conscientized, re-oriented, and empowered. Rehearsals are conducted in the open. Members of the community are encouraged

to discuss actions and ideas being tried out in a friendly manner. Different people are encouraged to play roles. This process of collective creation and articulation forges group solidarity and throw up challenges which can spur actions in the right direction. Rehearsal times should be at the convenience of the community.

Step Six: Performance and Post Performance Discussion- Rehearsal becomes performance once the play-making process crystallizes. Performances are an extension of the rehearsals. Like the rehearsals, they allow for the community members to intervene. The performance must contend with the noise, the haggling and the human traffic impinging upon the performance venues/sites. Exaggerated actions are useful to attract attention, generate interest and clarify issues. The body in such moments complement in actions and movements, what words are supposed to say. "It is necessary that the performers draw the audience into the play as participants, by engaging the audience regularly" (Yerima, 1990). To do this the actors constantly throw actions and debates to them, ask questions, call them as witnesses, request their support for arguments, conspire with them. Tell them what you are about to do, distinguish between you as a person and the character you are portraying, ask for their comments and opinions over an issue, reach out and act in their midst, touch them, take sides with them. When the exercise comes to an end, sit with the people and encourage them to re-examine the issue in the play and plan strategies for action.

Step Seven: Follow Through- It is possible that the action strategies agreed upon at the end of the community theatre experience and the issue of the play may just fritter away because of lack of will or motivation or resources to carry them through. Daniel and Bappa writing on the need of a follow through note that, "This is one very important area in which past TFD projects have serious challenge as little effort is made to return to the community to monitor the progress which has been brought about as a result of the information shared". Mbachaga (2011) further comments that, "Measuring the depth of impact and cross checking results and change as a result of TFD interventions has been a challenge despite the accolades for the practice across the globe, constraints continue to hamper the full realization of the philosophy or even expectations of the practice bringing about change."

It is therefore important for the team to re-visit the communities and give them encouragement and help to motivate and re-motivate them, to examine new areas of co-operation and to evaluate the impact/effect of what was done previously and what is going on at the moment. Our understanding of the role of theatre in the promotion of sustainable development will be drawn upon three consecutive Community Theatre experiments in Funtua by students of the Department of Theatre and Performing Arts, Ahmadu Bello University, Zaria.

The Funtua Field Work: Background
As part of its academic program for the year 2004/2005 session, the Department of Theatre and Performing Arts, ABU, Zaria embarked on a community theatre project in Funtua Local Government Area. The community theatre project was planned in collaboration with the National Youth Council (NYC), Funtua Branch under whose umbrella most of the Community Based Organizations (CBOs) operate.

The justification for the choice of Funtua as a field location derives from the fact that Funtua Township is about an hour's drive from Zaria. It is also an environment known hitherto for quite a number of active Community Based Organizations (CBOs) - some of which have been reported to have withered away. There is also a record of earlier work and collaboration between Ahmadu Bello University, Zaria and some of the older CBOs. There also exists a vibrant branch of the

National Youth Council (NYC) with great goodwill from the Local Government Council which is evidently receptive of youth and people's participation in addressing issues concerning the environment. This information actually galvanized the team to take the project to Funtua and its environs.

The 2005 Experience
A team of four members of the academic staff and 61 students set off from Zaria to Funtua. The date was Wednesday, 18th May 2005. On arrival at Funtua, the team which was led by Dapo Adelugba, Salihu Bappa, Steve Daniel and Martins Ayegba were well received by the people who were eager, excited and felt honoured to host students and staff of the Ahmadu Bello University. They had even waited for the team at the outskirt of the town to usher them into Funtua Township.

Before going into the field proper, there was preliminary work in terms of visits and advocacy. This was in tandem with Abah's reflection on advocacy. Abah (2005) sees advocacy as, "the stage at which the community and the workshop organizers discuss issues and get to understand the workshop agenda...and also to seek official support from the different relevant bodies... and approval from the community for the event to take place."

Accordingly, the first obligation of this group was to familiarize with the environment, the people and the authorities in the area (this is not to say that there has not been other pre-workshop arrangements). This gives the participants the opportunity to acknowledge the position of the community leaders which is to make convenient the path and prepare a way for participants to meet with the community people. The TFD work in Funtua would not have been complete without the various courtesy and strategic visits to the institutions and other traditional, political and religious structures of the locality prior and just before the commencement of entry to the various places in and around Funtua. This was and is important not only in the area of seeking permission and reaffirming such permissions earlier granted, but also in seeking support from the traditional and government authorities. After these preliminaries, then came the real field work. We shall attempt to put into perspective the project in stages.

Researching the Issues of Funtua Community
For easy access and coverage of the participant communities, the team was divided into six (6) groups. These groups were a mixture of Hausa and non-Hausa speaking students with members of the CBOs from communities as guides. The groups were sent to various parts of the community (Bariberi, Ungwan-wanzame, Tudun-Wada, Dikke, Jabiri Motor Park and Bisije – which is coined from the acronym; BCGA) all within and outside Funtua township. The groups went in different directions with the guidance of members of the CBOs to interact with the larger community. This took the form of informal discussions, untailored interviews or casual observation through transect-walk and other interactions with the members of the community. Having traversed through the designated areas, the groups then converged later in the evening for a plenary session to report and compare notes from the various locations. It is important to note that the plenary session was in conjunction with members of the CBOs. This activity formed the first point of presentation of raw data that was subjected to serious interrogations. The data gathered gave insights into the socio-cultural geography of Funtua and its people and it became the pivot upon which the entire project stood.

Key Findings in Funtua Community
Research through interpersonal and group interviews, informal discussions and individual observation into Funtua community proved to be very useful. Amongst several others, issues

relating to the environment were dominant from the various groups: drainage problem, improper disposal of polythene waste, desertification, tree felling, health care, collective responsibility, and so on. These were mentioned as pressing environmental problems of the community. Another important aspect of the research findings was, the participation of women in the process. They were very excited and eager to lend their voices towards the growth of their community. All the issues were interrogated (with community representatives) which gave in-depth understanding. At this level of discussions, very important discoveries were made about environmental hazards and their negative effects to people and the environment.

Scenario Development and Rehearsals
After the analysis of the issues from the field, the team divided into six groups with each group focusing on an issue identified and interrogated. Significantly there was full participation by the members of the clubs and association, who did not only take over the thinking role but were also responsible for the structural organization and the technicalities. The rehearsals helped in the further understanding of the issues because people began to think deeply on how to resolve these problems arising from their new awareness. This also encouraged participation by the way people sat together, thought together and made drama.

Performance and Intervention
After the process of scenario development, the community performance followed. This involved students as well as members of the CBOs. In community theatre practice, the performance is actually intended to be a process. It is not a finished product. This is because, it is actually open to further discussions, corrections, additions or may even steer up a new argument altogether. Since the information and data came from different smaller communities with their representatives, the performances were taken to the various communities. Each of the communities identified with the issues of environment and responded in many ways like clapping and cheering, disagreeing with an action, or even shouting across to the actors and correcting them on the spot. The issues were provocative and indeed spurred them to arguments, questions and debates among themselves. There was ample feedback on the issues raised in the plays during the post-performance discussions.

The Funtua 2006 Experience
The fact that Community Theatre is associated not just with identifying issues and dramatizing them, but promoting sustainable development through follow-ups is very important. Kafewo (2004) observes that, "One unique advantage of Community Theatre over conventional Theatre is that, apart from immediate feedback, there is always a chance for what is called a follow up or follow through… to assess the impact."

The importance of this exercise is enormous. It is often times difficult if not unnecessary to bring back the entire audience for a performance in a Conventional Theatre to do any form of follow-up action. Since community Theatre is issue oriented and directly tied to the dominant concerns of the members of a given community, there is always a chance to go back and look at how far the issues raised and solutions proffered have been effective or otherwise and to plan new strategies. Though, the 2005 team re-visited Funtua again in July, 2018 for a rapid appraisal of the May experience, they never had up to eight hours of discussion in all the communities put together. This is the ideology behind the choice of Funtua as field location for the 2006 Community Theatre experiment.

On 29th May, 2006, the 300 level students of Theatre and Performing Arts Department went back to Funtua for their Community Theatre experiment. The essence of this project was to follow up on

the efforts by the previous (2005) team. This in itself is an attempt to bridge the gap that has always existed in the sustenance of action plans and execution of such plans. In this instance, the same leaders of the team had the opportunity to take the students back to Funtua. Six 400 level students that were part of the 2005 experiment also formed part of the 2006 team of 74 students. This easily provided the background and the link.

The contacts that had already been made with the Community Based Organizations (CBOs) and the gatekeepers of Funtua Local Government Area made it easier for the 2006 team to carry out its research within a short period of time. Prior to the date of departure, the team suggested earlier dates that were not convenient for the Community Based Organizations (CBOs); they had to wait till the CBOs were ready for them. This is because they are the real catalysts in community development and as well, the hinges on which the team could carry out the research. It is on this premise that Buratai (2004) posits that:

> ...the consolidation of the Community Theatre project can be measured through its ability to incorporate, utilize and project existing social and cultural infrastructure such as a base group; where one exist already, or the creation of one where none has existed on ground and which subsequently remains the pivot for community self-development.

Upon entry into Funtua by the 2006 team, they visited the District Head - Hakimin Funtua, Alhaji Sambo Idris Sambo and the Sarkin Adon Katsina at Bakori. The District Head was happy to see the ABU team again. He could identify some of the lecturers and some members of the previous team that voluntarily joined the current team. The visit to the Chairman of Funtua Local Government Council was a memorable one as opinion leaders, youths, elders and other stakeholders were all present at the local government secretariat to celebrate democracy day with their honourable Chairman. They all exhibited warm reception and promised to give their full support towards the actualization of the project. Interaction with the Chairman resulted into the discovery of progress from the last team's work. He pointed with excitement at some of the trees planted the previous year that have grown into maturity.

Key Findings of the 2006 Funtua Experience
The Students were divided into six groups and the same communities where the 2005 team carried out their research were allocated to the groups respectively. Each group had their first contact with the communities on the 30th of May, 2006. The team made use of the journalistic approach during interviews with groups and individuals in the community because they were conscious of their presence in the community so, any attempt to hide their identity or not coming out straight may betray the trust built with the previous team. Thus, they were more direct with questions than being indirect. Just like the 2005 team, environmental issues were the general agenda of each group. Results from the findings proved that the community dwellers really embraced the idea of self-help projects to safeguard their environments. Since the skills and techniques of the theatre had been transferred to the people, they preferred to do a drama presentation for the A.B.U team to watch. They took over the shaping and reshaping of the scenario and guarded the process jealously. During the rehearsals, the members of the community found it very easy to relate with the students because they were now conscious of the fact that the team from A.B.U really had their interest at heart. This actually enhanced sincere dialogue. The CBOs participated fully in the play.

During a joint plenary session with representatives of the different CBOs, the Funtua Local Government Chairman was present. He pledged his total commitment to the project and begged the

ABU team to visit again in 2007. He was not actually assured of another round of Community Theatre intervention. However, the ABU team promised to donate 300 trees to the communities to mark 'World Environmental Day'.

1st of June 2006 was the day of departure. CBOs from Bariberi community visited the ABU team at their place of abode (Funtua Motel). They went with a request- that the team should revisit them. The team promised to revisit them. At about 12:00pm, the team left Funtua Motel for Jabiri where work was in progress. They were constructing drainages in reaction to the previous day's performance. The female members of the group engaged the children in the picking of polythene bags. The people constructing the drainages were at the same time acting a play for pleasure. They were singing motivational songs while working. The A.B.U team joined in the activities for about an hour before returning to Zaria.

The Funtua 2007 Experience
A major constraint upon Community Theatre practice in the academia is that of achieving the seventh stage which is the follow-up stage. It is always considered a herculean task. The reason for this acknowledged by both Abah and Okwori is due largely to its curricular nature; the fact that it is based within the academia, and has to operate within the parameters of curriculum and the time it takes. Because of its unstable nature, the availability of students continuously engaging in constant or periodic Community Theatre practice becomes erratic at best; since "students come in" says Abah (2005), "you are working with them; and they go, you have a new set. And you must start all over with that set … [and] you must begin with the very rudimentary rubrics with the new set … So the progress you can make with a community is very limited". Obviously, this is a very big challenge to the practice.

Consequently, explains Okwori (2008):

> We do not have any means of intervening, we do not have any means of follow-up, because once the class that did the project has graduated from that class, it is not possible to ask them to go back to the same community and follow-up anymore, because they have already earned their grades and so on.

The Ahmadu Bello University Funtua experiment was an attempt to break this jinx. After establishing a cordial working rapport with the members of Funtua community and its various hierarchies during the 2005 and 2006 Community Theatre experiments, the experience matured into a convenient, rigid bilateral relationship. The Funtua branch of National Youth Council hosted members of the 2005 and 2006 ABU Community Theatre team on World Environmental Day in June 2006. A rapid appraisal of the 2006 Community Theatre experiment was carried out and the ABU contingents donated 300 trees in fulfilment of their promise during the experiment. Seeing that the community members were excited about this new ways of thinking and new ways of doing things, the ABU team felt that it was not time to say goodbye. This is because, in talking about the issues of change and building people's consciousness and orientation, it needs sufficient time and also needs commitment. The ABU team was therefore, once more, encouraged to put on their thinking caps. This effort gave rise to the plans for a 2007 Funtua Community Theatre experiment.

On Tuesday, 5th June, 2007, the (same) team of four members of the academic staff and 86 students set off from Zaria to Funtua. Out of the 74 students, 12 were members of the 2005 and 2006 team

members. The 6 members of the 2005 team had just graduated but they joined the 2007 team based on invitation from the members of the academic staff.

Prior to the team's date of departure from Zaria, they had a lecture with Prof. Adene; a visiting Professor of veterinary and surgical medicine from the University of Ibadan and also Dr. Wakawa, a lecturer of Community Medicine in A.B.U. The lecture was centered on tree planting for conservation of energy and against desertification. Prof. Adene, through a slide presentation, groomed the team on climate change which is a dominant issue of great concern globally.

After advocacy visits to the District Head, elders and other stake holders in Funtua, the team joined the representatives of the National Youth Council and several CBO members at Karopi. The Funtua branch's National Youth Council Chairman presented 1000 trees that were donated by one Alhaji Isah Funtua an indigene of Funtua and Philanthropist. The CBOs, through the National Youth Council Chairman proposed that there should be a central performance this time around and everyone agreed. June 5th, 2007 was World Environmental Day and trees were available to be planted. The CBOs, Youths and the ABU team cashed-in-on the opportunity and visited the six communities where the 2005 and 2006 experiments were carried out. Trees were planted in the communities. It was good to know that the communities had embraced community self-help projects. The ABU team disclosed to them that the target Community for the 2007 project is Bariberi based on their proposal in 2006. There was an agreement that rehearsal for the joint performance should take place that night and the night after so that it can be showed openly on the 8th of June. The rehearsal held that night followed by a plenary session by the ABU team. The next day; 6th of June, the ABU team visited Bariberi community. Bariberi is a rural community located four (4) kilometers away from Funtua along Sokoto road. They are predominantly farmers and very hospitable.

Key Findings of the 2007 Funtua Experience
Bariberi has 10 registered CBOs that are geared towards ensuring communal development through self-help activities. They are; Bariberi Fadama Foundation, Fadama Gabbass, Fadama Yamma, Magangame Fadama, Tukurubi, Rafin Dole, Mudedi, Ihunkadadi, Bariberi Foundation. Their sole aim is to improve the lives of members and by implication the community as a whole by engaging in grassroots projects that can bring about change and physical development in their communities. The community based groups come together by harmonizing both human and material resources in constructing concrete open well, rehabilitation of roads, construction of drainages and culverts, construction of slaughter slabs and engaging in communal farming (Gayya). They have a very large tomato farm where every member of the community goes to pick tomatoes and vegetables for domestic use when the need arises.

Out of the issues identified, health, and environmental protection stood out. The community members created the scenarios at a faster rate than before. This enhanced sincere dialogue and their willingness to participate whole heartedly in the project. There was no form of knowledge gap between the ABU team and the community members. The university agenda (climate change) was not pushed into the front burner at the expense of more critical challenges facing the community.

Abah (2005) captures vividly the need for target groups to prioritize their own issues in the process of change when he says that change in Theatre for Development "is such that emanates endogenously rather than exogenously; such that builds from within rather than from outside". He is not, however excluding or writing off the outside in this discourse of theatre for development, but only maintains that the outside must be sought from within.

On the first day, the rehearsal hardly stuck to any rigid set of scenario because they kept on having something new different from the previous. Villagers came in to replace characters and to give their own perspective of the issues. It had to be so because the reality is theirs and the theatre is theirs. They were now using it to analyse their situation. After a rigorous rehearsal the next day (7th of June), the scenarios were ready for presentation the day after. On the night of 7th June, the Chairman of Funtua Local Government was present during rehearsal for the joint performance. He promised to make available 3000 trees to be distributed for planting the next day during the joint performance. The Funtua National Youth Council Chairman; Alhaji Bello had already made arrangements for secondary school students to be present during the presentation. He suggested that a tree planting campaign should be launched as part of the project.

Performance and Intervention
The ABU team went to Bariberi at about 7am on the 8th of June. The symbiotic exchange of ideas between the community and the ABU team during the rehearsals gave birth to a 30 minutes' performance which drew a good presence of actors and audience from within the community. The post-performance discussions took almost one hour because the community members could see their own issues being dramatized before them by themselves. The ABU team departed for Funtua Township Stadium at about 9.30am for the launching of the tree planting project and the central performance.

Local Government Officials, Elders, Opinion Leaders, other Stakeholders and Students were in attendance. The central drama was staged during the launching and their highlights were on two cardinal issues, first was that of environment, involving the benefit of tree planting and was linked to the second issue of health as regards cleanliness, personal hygiene, community sanitation and sensitizing the community on the need to accept the idea of immunization as a positive thing. The drama brought out the consequences of not taking children for immunization. The then Executive Chairman of Funtua Local Government; Alhaji Mutari Dandutse and the Funtua National Youth Council Chairman; Alhaji Bello were present for the launching. They led the tree planting exercise and distributed the 3000 trees to CBOs to take to their various communities for planting. The ABU team departed for Zaria at about 1pm.

Potential(s) and Achievements
The achievements recorded from the Funtua field experience can be assessed in the light of the 2006 and 2007 session of students that went back to Funtua to follow up on the work by the previous team. This in itself was an attempt to bridge the gap that has always existed in the sustenance of action plans and execution of such plans. In this instance, the same leaders of the team had the opportunity to take the students back to Funtua. This easily provided the background and the link.
Beyond the general awareness generated by the community theatre project on environment and self-help projects through CBOs, a lot of activities were planned and are being implemented:

1. The tree planting campaign, which is a response to the issue of desertification and tree felling discussed during the data analysis, has been taken forward with the assistance of the local Government and other well-meaning Nigerians concerned with the issues of desertification. The community people during the follow up exercise showed members of the team the number of plants physically planted and are being nurtured. Spaces have been identified for the planting of more trees which were been solicited for and strong plans are

also underway towards the participation of the people and governments of Funtua L.G.A in subsequent celebration of the World Environment Day.

2. There is also an amplification of the voices of the CBOs. More CBOs were involved in community self-help projects popularly called 'aikin gaya' in the area of construction and maintenance of drainages.

3. As a follow up to the Funtua experiment, The NYC also is negotiating with a group in Kano to involve people in collection of polythene waste and to recycle. This is to begin to inculcate even in the young minds that unmanaged and careless disposal of polythene is hazardous and should be attacked.

4. Improved relationship and networking amongst CBOs: More recognition, credibility and value gained by the CBOs especially from the local government authorities. The entire process served as a morale booster for them as clubs came back to life. Some of the clubs that have long died resurrected at this point. There was glaring revival of some of the dominant clubs and associations.

Limitations and Problems
This practice is largely experimental and has its various problems:

1. The first is lack of commitment to the course by some of the students. Some of the students simply could not cope with the idea of working with the people at the grassroots. Some are even sentimental and only manage to work in the field since they must do it to earn marks. This limits the potentials of the experiment. Here one can say that there is a low level of acceptance and satisfaction from the student practitioners. To this effect, during one of the sessions for the evaluation, some of the students were of the opinion that only committed and convinced students should participate in the project. The course should not therefore be made compulsory.

2. There is no doubt also that the experiment was almost hijacked by the politicians who saw the project as an opportunity to garner popularity and appreciation from the community people in the name of bringing the presence of Ahmadu Bello University (the outside world) to them. There was a lot of interference from the agents of the Local Government Authorities who were almost dictating to the students where to go to and who to speak with. The students were however, fore warned and threaded with caution and so were able to use several techniques or triangulations to get their information. Much of the information was confirmed or refuted or clarified during the rehearsals by the people.

In spite of the various problems encountered on the field, there were a number of success stories from the students who have learnt and benefited from the community and from the community people who have also come to appreciate the whole experiment and also identified that they could actually collaborate with the people at the ivory towers and bring development to their communities.

Conclusion
This paper submits that beyond the entertainment values of theatre, theatre can be used to investigate, address, challenge and impact on environmental issues. The obvious gap in the design of most Community Theatre projects to date is the inability of the organisers to include the follow-

up mechanism to gauge the impact of the Community Theatre workshop after some months or years. Community Theatre, being an interactive learning process, should encourage a conscious or unconscious symbiotic exchange of ideas between the community and the facilitators during and after the workshop.

Repeated references to the Kamiriithu experience in Kenya serve to remind practitioners from the academia to constantly review and improve on what is being done, the progress being made, the gaps and things/issues that need to change in other to promote efficiency and effectiveness of the practice. Students at the undergraduate levels should not be denied the privilege to follow up on their Community Theatre experiments. They should be encouraged to carry on and even make careers out of Community Theatre. The Funtua experiment is an attempt to bridge the gap between theories and the practice of Community Theatre from the academia.

References
Abah, S. Ogah. et al. (1989).*Community Theatre for Social Mobilisation: Training Manual.* Abuja: Directorate for Mass Mobilisation for Social and Economy Recovery (MAMSER).
Abah, S. Ogah. (2005). *Performing Life: Case Studies in the Practice of Theatre for Development.* Zaria: Tamaza Publishing Co. Ltd.
Abah, O. S. (1988). "*The Samaru Street Theatre Project, Nigeria*". *Media Development.* Vol. XXXV, No. 3., 22 – 24.
Abah, O. S. and Etherton, M. "*The Samaru Project: Street Theatre in Northern Nigeria*". *SAIWA*, Issue 1. English Department, A.B.U., Zaria, n/d, 9 – 19.
Abah, S. Ogah and Etherton Michael. (1982). 'The Samaru Projects: Street Theatre in Northern Nigeria', *SAIWA,* No. 2. ZARIA: ABU Press.
Abah, O. S. "*Intention and Practice: (*1985). *The Point of Divergence in the Samaru Project*". *SAIWA*, Issue 3. English Department, A.B.U., Zaria, pg. 42– 53.
Ahura, Tar. (1990). 'Popular Theatre and Popular Development Strategies: An Assessment of the Kurume Experience' Ndumbe, Eyoh. *Hammock to Bridges.* Yaoundé: Bet and Co.
Akanji Nasiru. (1993). "Making Political Statements through Drama: the example of *Ajosee Wa Ni*" In *Theatre and Politics in Nigeria* edited by Jide Malomo & Saint Gbilekaa. Ibadan, Caltrop Publications (Nigeria) Limited, Pg. 45.
Burkey, Stan. *People first:* (1998) *A Guide to Self-reliant, Participatory Rural Development.* London: Zed Books.
Cornwall, Andrea. (2000) *Beneficiary, Consumers, Citizen: Perspectives on Participation for Poverty Reduction,* Novum Grafisca: Gothenburg.
Daniel Steve and Bappa Salihu. (2004). "*Methodology and Process: Foundations for Incorporating Child Rights Issues in Theatre for Development Practice".* In Femi Osofisan (ed.) *Communicating Children and Women's Rights in Nigeria.* The Department Of Theatre and Performing Arts UI/UNICEF.
Disai, Gaurav. (April, 1990). 'Theatre as Praxis: Discursive Strategies in African Popular Theatre.' *African Studies Review, Vol. 1, No. 1.* Atlanta, Georgia: African Studies Association.
Etherton, M. (2004) Interview with Dapo Adelugha, in Femi Osofisan (ed.) "*Communicating Children and Women's Rights in Nigeria: Experiences from the Field*." The Department of Theatre Arts, UI/UNICEF, 47 – 50.
Etherton, M. (1982). *The Development of African Drama*. London: Hutchinson
Freire, P. (1988). Education for critical Consciousness. Ney York: Continuum.
Gbilekaa, S.E.T. (1997) *Radical Theatre in Nigeria*. Ibadan: Caltrop Pub. Nig. Ltd.
Gumucio-Dagron, Alfonso. (1994). (*Popular Theatre in Nigeria.* Lagos: UNICEF.
Henry, Mallika. (2000) "Drama's Way of Learning" In *Research in Drama Education.* John Somers (Ed.) Vol. 5, no.1.
Illah, Egwugwu. (1982) 'Our Work Here', A keynote address on the Scope and Orientation of Drama in Ahmadu Bello University, Zaria, to the Association of Theatre Arts Students' Festival in Jos. Unpublished.
Kafewo, S. A. (2004). "Assessing a Practical Community Theatre". In Jenkeri Okwori Z. (ed.) *Community Theatre: An Introductory Course book*. Zaria: Tamaza Publishing Co. Ltd., 75 – 79.

Kafewo, S. A. (2004). "Case Studies of Community Theatre Practices". In Jenkeri Okwori Z. (ed.) *Community Theatre: An Introductory Course book*. Zaria: Tamaza Publishing Co. Ltd., 42 – 60.

Kafewo, S, A. "Rhythm of Transformation: Theatre and Conflict Resolution in Northern Nigeria". In *New Theatre Quarterly*. London. Cambridge University Press.

Mbachaga, J. D. (2011). "Theatre For Development, Participatory Monitoring and Feedback: The Example Of Ikyaan And Amua Communities in Benue State Nigeria". In Kafewo Samuel *Nollywood and Theatre for Development (TFD): Exploring the Bridges of Interaction.* ABU, Zaria: SONTA Conference.

Mda, Z. (19930 When People Play people: Development Communication through Theatre. London: Zed Books.

Okwori, Jenkeri Zakari. (2002) 'Popular, Theatre, Popular Participation and Empowerment' In *Contemporary Theatre Review*, Vol. 12, no. 1+2, pp. 161-170.

Okwori, J. Z. (2008). Personal Interview (Appendix I). In Chukwu-Okoronkwo, S. O., "Trends in Alternative Theatre Development: ABU, Zaria Experience as a Case Study." Unpublished M. A. Thesis. Department of Creative Arts, University of Lagos, Akoka, pp. 90 – 101.

---   'Reclaiming Space- from the Fence to the Arena: Repositioning Children and Women's Right in Nigeria's Theatre for Development.' *Communicating Children and Women's Rights in Nigeria: Experiences from the Field.* Ed. Femi Osofisan. Dept. of Theatre Arts, Ibadan and the Planning and Communication Section, UNICEF, UN House, Abuja.

Rogers, E. M. Communication and Development: (1997). The Passing of the Dominant Paradigm. *Communication Research*. Vol. 3, no.2, pp. 213-240.

Tufte, T., and Mefalopulos, P. (2009). *Participatory Communication: A Practical Guide.* Washington D C: The World Bank.

Umar-Buratai, M. I. (2004). "Consolidation", In Jenkeri O. Z. (ed.) *Community Theatre: An Introductory Course book*. Zaria: Tamaza Publishing Co. Ltd., 80 – 85.

Yerima, A. (1990) "Producing a Play for the Popular Theatre: A Study in Style and Technique in Samaru Projects", in Hagher, Iyorwuese Harry (Ed.) *The Practice of Community Theatre in Nigeria*. Lagos: Society of Nigerian Theatre Artists [SONTA], Pp. 84 – 93.

3.
THE MILKMAID IN PERSPECTIVE: A FORMAL ANALYSIS OF SELECTED FULANI MAIDEN INSPIRED ART WORKS

NWABUOKU Kennette Dikens (PhD)
Department of Fine and Applied Arts
Faculty of Environmental Sciences
University of Benin, Benin City, Nigeria.
kennette.nwabuoku@uniben.edu

Introduction

The Fulani who are a stock of the North are specifically referred to as pastoralists or nomads due to their constant migrating lifestyles. In the process of this constant mobility, their numerous flocks usually encroach on and destroy farmlands and products, which always cause fierce conflicts between them and the various communities they happen to settle in at that point in time. Despite the negative tendencies that oftentimes trail their movement, however, the nomadic Fulani also possess some very salient characteristics, with particular reference to the popular visual representations of the Milkmaid otherwise referred to as *Mai Nono*. On this premise therefore, this paper is presented as publicity as well as a sensitization campaign to showcase the overly downplayed or outright overlooked positive side of the nomadic Fulani, with emphasis on the Milkmaid, as a design catalyst for artistic development and cultural sustainability. In the course of this paper, the generic terms Milkmaid and *Mai Nono* will be used interchangeably.

A Brief on the Fulani and Nomadism

Artmore (1979: 56) postulates that "the Fulani provided one of the very few examples in Africa of the mixing of two races as distinct from ethnic or tribal groups". Artmore, further states that the "Fulani are descendants from the Negro tribal group of Tukulor, reasoning that they are the descents from "Caucasoid Berbers who mingled with the Tukulor when they moved south of the Sahara". He goes on to suggest that: "the Tukulor linguistically may have been related to the Serer and Wolof people". Saine (2012:11) explains that the Serer and Wolof people are a West African ethnological group partly Senegal and partly Gambia. Artmore concludes by claiming that their present name (Tukulor) was a corruption of the English word "Two Colours". de St. Croix (1945) revealed that the Fulani originated from the Arabian Peninsula, and migrated south-ward to Senegambia. From Senegambia, they moved east-ward, crossing several Sahelian and Sudanian zones, to the Red Sea.

Nomadism as practiced by the Fulani pastoralists is a human activity which has been in existence from time immemorial. History relays to us that long before man began to settle down or to even dream of building communities, that the early man was primarily nomadic in lifestyle. This nomadic culture, which the Fulani group still practices, though ancient, is very much in practice in many parts of the world today. Such lifestyle is rather exclusive and does not permit intrusion from other cultural backgrounds. This account is in tandem with the statement by Meek (1925: 96), that: "the Fulani have maintained a remarkable national solidarity and race exclusiveness..." Little wonder why the nomadic Fulani seldom practice inter-tribal affinities such as marriages. As synonymous with itinerant populations globally, the nomadic Fulani in general and the *Mai Nono* in particular have over the decades maintained a peculiar characteristic and uniqueness as a people, due mostly to their non-conformist approach to surrounding cultures and customs. Their lifestyle has as a result, remained unadulterated by surrounding cultures in spite of their constant mobility.

Response to Social Change

Contemporarily, the world is now viewed as a global village. As a result of this, the youth and the elderly from every walk of life are trying every possible means to adapt to the constantly evolving scenes of the present high-paced age. All of these happen because of their quest to be inclusive in world trends. Conversely, the nomadic Fulani to which the *Mai Nono* belongs are seemingly undaunted and have not bothered much in pursuing nor applying modern tendencies to their lifestyles, due to the fact that their cultural and traditional values remain of great importance to them. This verity about the nomadic Fulani's seeming lack of interest in the craze typical of the present age, has however, presented dual consequences.

Positive Consequence

The Nomadic Fulani have positively maintained the purity of their traditional values as it has remained untainted and unadulterated, despite their wide range of travelling. They have not become enslaved to modern fashion nor have they been influenced by what is in vogue unlike their sedentary neighbours. As a result of their cultural purity, the nomadic Fulani have to a considerable extent preserved their cultural heritage and peculiar identity. Life on the move has also minimized significantly, the risk of cultural or moral pollution through contact with non-nomads. Stenning (1965) lends voice to this assertion as he observes that, "In order to keep their race pure, unadulterated and unpolluted, marriages are contracted usually between close kin, and by this means, an agnatic lineage group is believed to conserve its normal purity and indeed, to prevent its own dissolution." This concept of first-cousin marriage may be traditional rather than religious, for it may not have an Islamic or even Christian backing. Brain's (1980: 15), view is that "For the Fulani, the important things are purity of race, the training of their cowherd, preservation of their language and traditions, their ceremonial patterns, and above all, the cattle".

Negative Consequences

On the negative side, is to be noted the implication of the statement by the sage and Babylonian mentor, Clason (1926: 41): "...therefore, I urge all men to be in the front ranks of progress and not to stand still, lest they be left behind..." This statement hitherto, describes the nomadic Fulani, who, refusing to move with evolving scenes of life, and tenaciously holding on to their cultural values, as well as refusal to mingle with the surrounding cultures, have been grossly short-changed or neglected by several successive governments, policy formulation and implementation. As a result, they lacked access to some modern amenities. In fact, in terms of civilization, (not until quite recently, with the creation of agencies, such as the National Commission for Nomadic Education (NCNE), The Pastoral Resolve (PARE) and other Non-Governmental Organizations (NGOs), such as Miyetti Allah Cattle Breeders Association of Nigeria (MACBAN), and their numerous facilities geared towards uplifting the nomadic Fulani race), they had no direct access to education, hospitals, bank loans/services and a host of other modern amenities as enjoyed by the sedentary populations.

In this regard, Ezeomah (1987) observes that: "the pastoral nomads have not benefitted significantly from the massive educational expansion in Nigeria. The migrant groups are thus undoubtedly among the most educationally disadvantaged groups in Nigeria". This is a profound statement from a scholar, who is an authority in the area of the nomadic Fulani populace. Still on the issue of the Nomadic Fulani educational disadvantage, Ezeomah (2002: 6) notes that:

> Their (nomadic Fulani) abysmally low level of education in formal and non-formal education was largely due to the following constraints: the nomad's lifestyle of constant migration in search of water and pasture...the irrelevance of the formal school curriculum vis-à-vis their needs, interests and problems, the centrality of "child

labour" in their production system in which it is extremely difficult for children to attend formal schools regularly.

In the same vein, Agwu (1998: 17) observes that "certain groups had out of omission or commission, been left out of the country's educational provision, in fact, until very recently there are no concrete provisions for Nigerian nomads." Excerpt from the introductory notes on the information Brochure of the National Commission for Nomadic Education, published in 2002, reads thus:

> ...the pastoral nomads have not benefited significantly from the massive educational expansion of the 70s and 80s in Nigeria. The migrant groups are thus undoubtedly among the most educationally disadvantaged groups in Nigeria. Indeed literacy rates among the pastoral nomads....even before the inception of the National Commission for Nomadic Education in 1990, stood at 0.02%.

Purpose of this Study
The objectives of this study include shedding light on the following identified areas on the nomadic Fulani.

I. Ascertaining to what extent the nomad Fulani have held true to their cultural/traditional values.
II. Examine the possible reasons why they have succeeded in maintaining their race exclusiveness.
III. Demystify the nomadic Fulani in terms of their past and conservativeness despite social change.
IV. Showcase and determine the extent of influence and coverage by contemporary Nigerian artists of the nomadic Milkmaid entity as represented in numerous artistic media.

Selective Reportage
Headline news on various electronic media such as television, radio, newspapers and even on the social media platforms abound on clashes resulting in the maiming, killings and sacking of entire farming communities by nomadic Fulani herdsman, but hardly does one hear about the positive contributions of the nomadic Fulani to national development.

Ikpeama (2002: 16), reports a clash between Fulani nomads and some farming communities as indicative of such incidences. According to her, a Fulani herdsman had a squabble with a farmer, which resulted in the death of the farmer. She further reported that this culminated in the killing of nine Fulani, about 150 cattle, destruction of property and massive dislocation of Fulani nomads to neighbouring states. In proffering solution to this ugly trend, she attributed the incessant clashes with host communities to letting loose of animals by the Fulani into people's farmlands and farming on cattle grazing routes. She however, called on the government to give clear demarcation of grazing routes and the creation of grazing reserves for the nomads. These she said would bring an end to clashes between pastoralists and their sedentary neighbours.

The Nomadic Fulani Contributions to National Economy
As aforementioned, the system of selective reportage on the nomadic Fulani, which seems to be silent on their numerous positive contributions to Nigeria's economic growth, while maliciously laying emphases on the negative theories trailing them is not healthy. In response to the need for sensitization, this study hence makes reference to the following facts as reported by several authorities and sources.

In spite of their numerous contributions to the growth of agriculture in Nigeria, little is known or understood about the persona of the nomad. It is important to note that more than 90% of beef in Nigeria is supplied by the pastoral Fulani alone. Ezeomah (1987: 2) asserts that: "often times, we do not appreciate that they (the Fulani) not only give employment to about 12 million of our citizens, but also sustain such agro based industries as meat, dairy, shoe (leather) factories, among several others most of which without them, life would be more problematic". Ezeomah (1987: 63) further adds that, "High quality livestock is important for the production of quality protein which comes from milk and meat. Of the estimated population of cattle in Nigeria, 96% of them are owned by the nomadic Fulani. They are also the major contributors of fresh milk, butter, hides and skin etc." Ezeomah (op. cit.) concludes by noting that, "the dung passed from the cattle is a great source of manure for the farmers also".

Meek (1925), also points out that, "The presence of their cattle is generally welcomed by the local inhabitants, who thereby obtain supplies of butter and milk, as well as manure for their fields. The flesh of cattle that have died is also an acceptable addition to the diet of pagan villagers."

Acuity of the Milkmaid
It would be assumed that due to her seeming "refusal to embark on the train of change" the nomadic Milk Maid as a consequence, lacks representation in government as opposed to her settled counterparts in other ethnicities across Nigeria. Also, due to her peculiar lifestyle, she is neither in politics nor is she educationally or financially mobilized thereby having no voice and so she is not always put into consideration when policies are being formulated and even if considered, she scarcely gets a fair deal. Besides, due to her constantly mobile lifestyle, as entrenched by her characteristic occupation, the Milkmaid and her male counterpart, the Herdsman, may have no land holding rights. It is most probably in response to this anomaly, that the present administration in Nigeria is vigorously pursuing the issue of cattle colonies as a means of facilitating the legacy of the migrant folk.

Unique Features of the Milkmaid
The nomadic Milkmaid is a spectacle to behold. Stenning (1959), describes her thus: "(mostly), light-skinned with curly hair, she has pointed nose, thin lips, and slender stature". In his own account, Latchen, (1970), describing the Mai Nono's physical features, explains that her blood may be "more Arab than Negro…" This latter submission by Latchen (ibid.) comes to mind when one critically examines the appearance of the pastoral Milkmaid, who is generally light skinned, of slender built, elongated and pointed nose, long and curly hair. Accordingly, Brain, (1980), seems to agree with both Stenning and Latchen as he asks the question: "…why the pastoral Fulani looked so different from other Africans?" The beauty and elegance of the pastoral Milkmaid, to a very large degree owes to her slim and often agile physique, which is not deliberate but natural. The virtue of her always being on-the-move life style, does not allow for indulgence in laxities that could lead to bloatedness, hence, her slim figure and the other aforementioned features all add up to her being the choice for several artistic expressions. Presently most of the nomadic Milkmaids as can be observed have become darkened in complexion, having lost their luminance. Indisputably, this could be due to their constant exposure to harsh weather conditions as a result of climatic change. This happens as they weather the storm and move about with cattle in search of pasture and milk distribution.

The Milkmaid's unique dress pattern, elaborate hair make up, lavish jewellery and ornamental costumes have been an integral part of the pastoral cultural heritage. The cultivation of physical

beauty is a characteristic of Fulani culture. This is so because, by merely observing the Fulani Milkmaid, one can see art, colour, beauty and elegance vividly displayed. It is their belief that God endowed them with the greatest beauty on the face of the earth; they therefore, do all that is within their means to preserve and exhibit this "God given heritage". A major part of this art is in their tattooing or colouring of their skins and their elaborate accessories and make-up. To a very large extent part of their arts also serve as charms.

The Milkmaid and her Calabash
While the nomadic Fulani Herdsman is rarely sighted without his staff and cattle, the Milkmaid on the other hand is hardly seen without her calabash or calabashes. The Mai Nono is known for her highly ornamented and decorated calabash which is the preferred container for milk collection, preservation, transportation and dispensation.

The following statement is credited to Berns and Hudson (1986: 48):
> While bowls cut from globular gourds predominate in daily use, the three other varieties of gourds – the bottle-shaped, flattened and tubular-also have a number of specialized applications. Calabash spoons cut from bottle gourds make handy ladles for serving soup or utensils for drinking the sweet thin porridge that is often shared out of one large serving bowl. Bottle shaped gourds are used not only as flasks for liquids, but also to hold various medicines and cosmetics. Smaller (uncut) ones are filled with pebbles and used as babies' or dance rattles. They are also used for holding seeds…

Hawking is a national phenomenon; it is a trade means that cut across every ethnic region of Nigeria and most of the African continent; but while basin, carton, tray, basket, head-pan and possibly, wheel-barrow may be used by other ethnic groups, in the eastern, central and southern parts particularly, the calabash is the preferred choice for the nomadic Fulani. In the dispensing of fresh milk, for instance, the milk is conveyed in a large calabash, another is used for its covering. The spoon for dishing it is a ladle and the consumers' plates are all products of the gourd plant which the calabashes of all sizes and functions are made from.

The calabash is also employed for other domestic uses in the nomadic Fulani homestead. It is used for water storage, as bowls for other purposes, as a bead, trinket or jewellery box of sort. Well carved and hand painted calabashes are priced gift items, which are parts of ceremonies. In the event of a marriage, the bride's matrimonial possessions are incomplete without a couple of calabashes. During annual lineage meetings, married women bring their racks to a public area to display their calabashes formally. To amass an impressive collection, a woman must sell many gallons of milk and spend many hours adorning or arranging the gourds. Large calabashes also serve in place of boxes for clothing. To add credence to this assertion, Stenning (1959), summarizes their household possession in this way: "Household utensils consist mainly of receptacles for milk for which calabashes of many different shapes and sizes are bought in the market and decorated by the women".

Again, calabash, which in Fulfulde, is called "Kwariya", loosely translated as "container" is another avenue for art for the Fulani; accordingly, Fisher (1984: 148) notes that, "They (the calabashes) are decorated with incised designs, mirrors, coins, thumb tacks, spoons and other ornaments of individual choice which not only indicate the owner's prosperity and lineage but also provide an outlet for artistic talents."

Visona (2001: 44), further reports that:

> In addition to valuing collections of calabashes as personal treasuries, pastoral Fulani women use calabashes for personal adornment. Calabashes filled with milk are carried to the market on the heads of these graceful women, who believe that well-arranged images on calabashes both attract clients and accentuate their own slender beauty.

Visona (ibid.) went on to assert that: "designs appearing on a woman's skin are also burned, impressed or carved into the calabashes she owns".

These gourds, whose rinds have been scrapped, dried and prepared for use as containers, are used by the many peoples of Africa. However, they are the focus of especially elaborate aesthetic attraction among the Fulani. Beautifully ornamented gourds embellish a household and are adorned and displayed primarily by women. Nwabuoku, (2010: 52) states that:

> The gourd from which the calabash is derived is not exclusive to the Fulani alone. What is however quite distinguishing is the fact that a calabash is merely a domestic utensil in the hand of a Yoruba woman, and a wine container in the hand of an Igbo palm wine tapper. To the Fulani it is not just a mere container or utensil, but a great possession and an indispensable companion, hence the need to beautify it as well as give it character. Thus, calabashes in the Fulani context go beyond mere domestic use to both art as well as fashion.

Milkmaid: Fashion and Style

The dress sense of the nomadic Milkmaid is very unique and peculiar. She is greatly inclined to very loud colours as can be noticed from her multiple coloured, layered apparel. It is not surprising therefore, why her lifestyle, fashion and personality have continued to greatly inspire contemporary Nigerian artists. The Milkmaid naturally has long curly hair, which she further loves adorning with long attachments and woolly-extensions to which she applies brilliant coloured materials for enhancement (Plate 3). The following statement by Jefferson (1994: 8), lends credence to this assertion: "Man's inclination to decorate objects is deep-rooted and universal. Since prehistoric times, he has embellished a wide variety of his possessions – from his weapons and the walls of his shelter to clothing and even his own body."

It has been observed that "during the first part of the twentieth century, Fulani women could be easily distinguished from women of other groups in the Futa Djallon by their distinctive hairstyles". Visona (2001: 44) notes that:

> Kaleidoscopic in range and beauty, African dress embraces not only clothing and jewellery but also coiffure, scarification, and body painting. Like speech, dress is a primary civilizing phenomenon, a means of symbolic communication. Operating in a matrix of cultural codes and personal preferences, it conveys to inform onlookers a culturally constructed self or identity.

It has equally been noted that generally, African dress codes depend largely on the culture's way of life. It has been further observed that the Mai Nono, as part of reducing the bulk of her personal luggage, resorts to wearing most of her personal effects almost always and for very long periods. The daily dress of the Milkmaid therefore, may include heavy gold, silver, bronze and beaded earrings as well as a rich collection of assorted jewellery. This is not necessary for a sedentary or

settled woman as she has a home to live and return to and besides, her settled life pattern permits her time and ease to attend social and organized functions. The Mai Nono has a unique dress code which tends to accentuate her slim physique and help maintain her typical outlook. This could also be aligned to her constantly on-the-move lifestyle, which demand light dresses in her quest to shelve excess luggage. Her blouse is usually small and body-fitting and usually due to her slim feature, she usually has a firm and sizeable bust which allows her to move with or without brassieres, an aspect of her fashion sense that artists have laid undue emphases on. In most cases, her blouse is so tightly fitted that parts of her body, her breasts and lower abdomen are left exposed. This is worn over a tightly tied one-piece wrapper. She favours shiny objects or ornaments as part of her attire, these ornaments include: colourful beads and buttons, copper coins, multi-coloured wool, coloured rings and bangles of varying sizes, shapes and texture. She wears rings, bracelets and beads on her neck, arms, wrists, ankles, waist, fingers, ears and nostril.

According to de Negri (1976), the nomadic Milkmaids:

> Use face marks and plenty tattooing. They decorate and paint their bodies, fashion their hair into attractive shapes. Fulani girls have elaborately arranged styles with plaits and bunch. In order to achieve this, long plaits of false-hair hang down very long and are decorated with bits of metal and beads. To attract attention to themselves, the pastoral Fulani girls wear brightly coloured clothes when they come to local markets to sell their produce. They do this because they attach so much importance to their external look.

Milkmaid: Succour Provider

The Milk Maid's romance with the calabash is not merely for identification purposes alone, but also for sustaining lives. Milking of cows, preparation, production, preservation as well as sale of fresh milk are some of the basic daily routines of the Milkmaid. As the family moves and the burden of the journey and harsh weather conditions begin to take its toll on them, the *Mai Nono* becomes the ever ready and ever present source of energy sustenance for the entire train. However, if for any reason, they settle in a location for a few days as the need arises, the services of the Milkmaid is then extended to the vicinity for as many as are willing to patronize her.

Mai Nono: Influence on the Arts and the Artist

As earlier stated, the Fulani Milkmaid has become several artists' delight. She has repeatedly been a theme in almost all art exhibitions across the length and breadth of the country, irrespective of region. She has been rendered in almost all conceivable media, especially in sculpture and painting. She has been used for promotional posters and campaigns, billboards, magazine and book covers, calendars and almanacs. The Milkmaids are the icons depicted on the reverse side of the Nigerian ten naira note (₦10). Also, the nomadic Fulani Milkmaid due to her beliefs disregards sculptural elements (images). But due to her great quest to express her art forms, resorts to other means. Sculpture is therefore translated as well as expressed through her hair styles. Brain (1980) states that, "the elaborate hairstyles of both men and women in many ways replace the clay and wood sculptures of other African peoples". Consequently, as she expresses sculpture in her hairstyle, so also she expresses painting on her face and body in the forms of make-up and tattoos – truly, the Fulani Milkmaid is "Art Personified".

A Formal Analysis of Some Selected Milkmaid Inspired Works by Contemporary Nigerian Artists.

As has been elaborated in the preceding discourse, the nomadic Milkmaid has significantly influenced contemporary Nigerian artists, who have explored and exploited several media in their quest to replicate the Mai Nono. The person of the Milkmaid has been expressed in various media and fields of specialty. These include painting, sculpture, textiles, photography, architecture and so on. Based on this fact, some works expressed in various materials depicting the Milkmaid are hereby formally analysed.
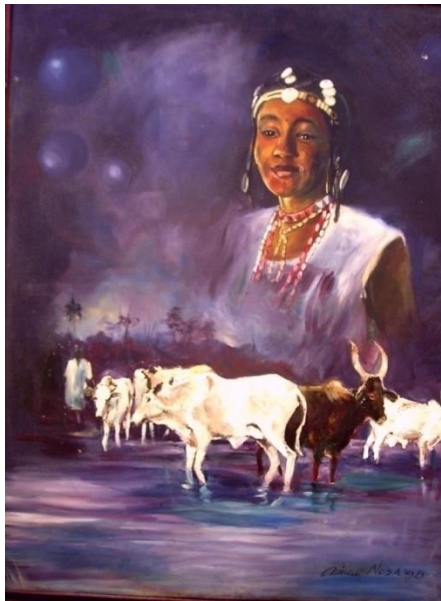
Plate 1
Artist: Nosa Ogiugo, Title: Fulani Maid, Size: 48' x 60', Year: 1998
Medium: Oil on Canvas, Photo Credit: Rakiya Sani

Nosa Ogiugo's piece titled "Fulani Maid" is rendered in oil on canvas. The maid is depicted in a relaxed mood with the terrain well captured; her attire, elaborate jewellery, facial make-up and hair are aptly replicated. One major omission however, is observable: the conspicuous absence of a decorated calabash. This could be termed a very major error or omission, because the calabash and the Mai Nono are supposedly "inseparable". Fisher (1984: 144) notes that, "They (the calabashes) are decorated with incised designs, mirrors, coins, thumb tacks, spoons and other ornaments of individual choice which not only indicate the owner's prosperity and lineage but also provide an outlet for artistic talents."

Having ascertained the importance of the calabash to the Milkmaid, it therefore seems an imperative item to be so omitted in such a painting visually denoting a special breed of people. The issue of contrast was also captured, as the artist creatively placed the cows which are predominantly white as well as the Milkmaid's attire against a backdrop of deep bluish-purple, suggestive also of the artist's good and broad knowledge and mastery of colour placement and distribution. Furthermore, the artist's depiction of the Milkmaid as a towering figure over and above the entire flock and landscape reflect the importance and centrality of the Mai Nono in the Fulani cultural setting.

In the final analysis, the artist infused three spherical bubble-like balls of varying diameters in the atmosphere to the top left of the painting. What could these three bubbles mean or be referring to? It is an observable fact that everything included in any work of art has a meaning or a story behind it. Could the artist sublimely be indicating the triad nomadic Fulani elements of "Pulaaku", which is their triple virtues of bonafide Nomadism, which translates into: Honesty, Hard work and Fearlessness? If this be the case then, the artist having effectively captured this vital aspect of the Fulani culture could be forgiven his other critical omission of the calabash.
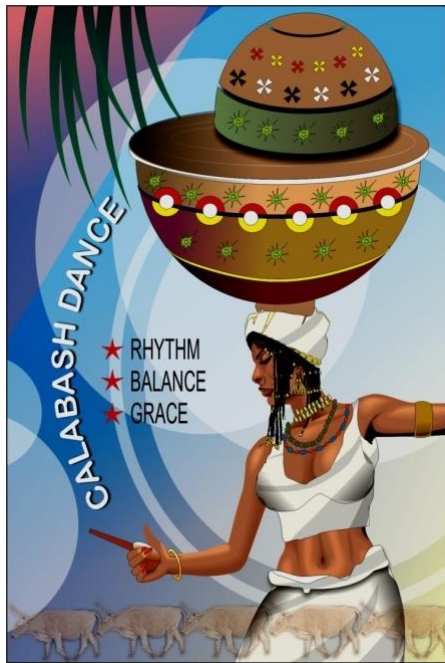
Plate 2
Artist: Nwabuoku Kennette Dikens, Title: Calabash Dance, Size: 24" x 36", Year: 2009, Medium: Graphic Poster, Photo Credit: De-Zeal Ken-Dikens N.

This poster depicts an even toned slender Fulani damsel exhibiting her wares in an elaborately decorated calabash positioned on her head without any external support. Her position suggests a rhythmical prance, as if beckoning on buyers. This poster in all ramifications celebrates the dexterity with which the Fulani maiden exhibits her wares. Her exceptional skill of positioning her well decorated calabash of fresh milk on her head with little or no support, despite her stance, coupled with the three words: Rhythm, Balance and Grace, insinuating the dance strides of the milk maid.

In this graphic poster, the creator's use of vibrant colours and cyclical shapes for the background is reminiscent of the *Mai Nono* who is almost ubiquitous across the length and breadth of the country in tandem with Meek (1925: 115), who agrees that "the nomadic Fulani, of whom the *Abore* or *Bororo* are the most typical, follow the grass – they may be here today and gone tomorrow". In the same vein, Ezeomah (1987: 12) indicates that:

> One of the main reasons for their constant movement, even at very short notice, is the avoidance of animal disease infested areas. Further reasons for the seasonal movements of the nomadic *Fulbe* has been motivated by many factors some of which are their desire for independence and freedom from interference and supervision by

> sedentary authorities, freedom from cattle raiding, avoidance of disease infested areas, and as an over-riding factor, the never-ending search for new pastures.

The three words: Rhythm, Balance and Grace, though suggestive of the artist's impression of the persona of the Milkmaid, yet, evokes the spirit of Pulaaku, the trio nomadic virtues of the Fulani race. At the lower edge of the graphic poster, a series of cattle seems to be marching across the picture surface from left to right. This in the artist's opinion suggests that as others depend on the Mai Nono, so does she depend on the cattle for personal survival.

Plate 3
Artist: Nwabuoku Kennette Dikens, Title: Art Personified, Size: 18" x 24", Year: 2009, Medium: Pastel on Paper, Photo Credit: De-Zeal Ken-Dikens N.

It is an unarguable fact that there is an inherent talent in every human, lying dormant till such a person stirs up the willpower to put it to use. Maxwell (2007) observes that, "you will become on the outside, what you believe on the inside". The Fulani Milkmaid may never have the opportunity either to see or even touch an artist's brush, pallet or paint, but her use of facial make-up as well as body painting and adornment expressly testifies to her great sense of creativity and likeness for all things artistic, hence, she uses her person as a tool for self-expression. In the same vein, Lazzari and Schlesier, (2005) assert that "the body is not depicted in art. It is used in making art or it is transformed to become artwork itself".

This statement justifies the efforts of the Milkmaid in her self-expression as depicted in Plate 3. This painting supports the statement that the Milkmaid is a visual spectacle to behold. The artist captures her use of elaborate jewellery, false hair extensions and facial make-up. The self-confidence of the Milkmaid as exemplified by her outlook is also well articulated in the manner in which the artist renders the Milkmaid's eyes. The clear light and unwavering stare alludes to a person of considerable confidence. In the final analysis, the art piece expresses the unspoken feelings of the unschooled Mai Nono that "Artists are born, not made".

Conclusion
The nomadic Fulani icon otherwise referred to as Mai Nono or Milkmaid has undoubtedly, inspired several visual representations geared towards the documentation of a national identity and

development and so she has immensely contributed her own quota to enriching the country both economically, culturally and visually. In the light of the above, one might therefore ask: "what can or has the Nigerian state done for the nomadic Milkmaid in reciprocity?"

Contribution to Knowledge

This article contributes to the general documentation of the Fulani as a nomadic race and their contributions to the sustainable development of the country through their agro-cultural activities. It also highlights and establishes the aesthetic qualities of the Milkmaid as a viable and continuous source of inspiration for art and artists.

References

Agwu, S.N. (1998). *Readings on Distant Education for the Pastoral Nomads of Nigeria.* Ahmadu Bello University Press Ltd., Samaru-Zaria, Nigeria.

Artmore, A. (1979). *Black Kingdom, Black People*. Akure: Fagbingbe Publishers.

Berns, M.C. and Hudson, B.R. (1986). *The Essential Gourd – Art and History in North-eastern Nigeria;* Museum of Cultural History, University of California, Los Angeles.

Brain, R. (1980). *Art and Society in Africa*. London and New York: Longman Group.

Clason, G.S. (1926). *The Richest Man in Babylon*. England; Penguin Putnam Inc.

de Negri, E. (1976). *Nigerian Body Adornment*, Lagos: Academy Press Ltd.

de St. Croix (1945) *The Fulani of Northern Nigeria.* London: Gregg International Ltd.

Ezeomah, C. (1987).*The Settlement Patterns of Nomadic Fulbe in Nigeria*. England: The Bemrose Press, Ltd.

Fisher, A. (1984). *Africa Adorned*. New York: Harry N. Abrams.

Ikpeama, F.C. (2002). *Nomadic Education News*. Kaduna. Publication No. 1, Vol. 8, Baraka Press, Kaduna.

Jefferson, L.E. (1974). *The Decorative Arts of Africa*. Collins St. James Place, London.

Latchen, C. (1970). *Looking at Nigeria*. London: Adams and Charles Black Inc.

Lazzari M. and Schlesier D. (2005).*Exploring Art. A Global, Thematic Approach*. Wadsworth, a division of Thomas Learning Inc.

Maxwell, J. C. (2007). *Talent is Never Enough*. Thomas Nelson Inc. Yates and Yates, LLP, Attorneys and Counsellors', Orange, California.

Meek, C.K. (1925). *The Northern Tribes of Nigeria*. Vol. 1: Frank Cass and Co. Ltd., London, Clarendon Press, Oxford.

National Commission for Nomadic Education, Brochure (2002).

Nwabuoku, K.D. (2010). *Graphic Advertising of the Nomadic Fulani of Northern Nigeria*. An Unpublished M.F.A. Thesis, submitted to the University of Benin, Benin City.

Saine, A. (2012). *Culture and Customs of Gambia*. Greenwood, an Imprint of ABC-CLIO, LLC, Santa Barbara, California. Denver, Colorado. Oxford, England.

Stenning, D.J. (1959). *Savanna Nomads*. Oxford University Press, Limited, London.

Stenning, D. J. (1965). *People of Africa.* New York: Holt, Rinehard and Winston Inc.

Visona, M.B. (2001). *A History of Africa*. New York: Harry N. Abrams, Inc.

APPENDIX: Milkmaid "Mai Nono" Inspired Artworks by Contemporary Nigerian Artists in Diverse Media

Artist: Unknown, Title: Ten Naira Note (₦), Size: 13cm x 7cm, Medium: Mint, Year: 1973 Source: Scanned Image
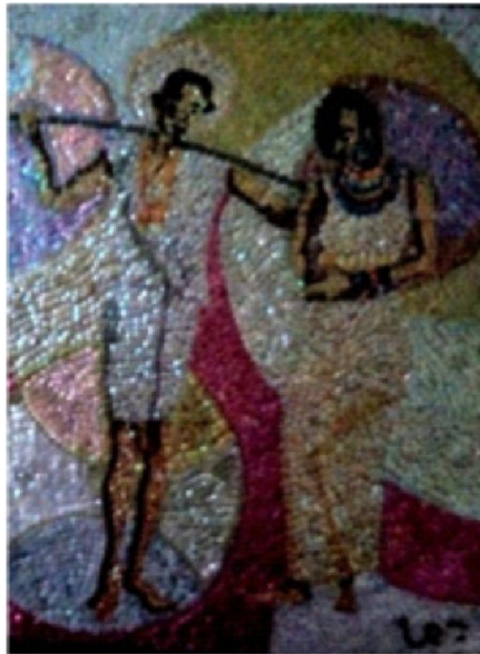
Artist: Lovina E. Onwuakpa, Title: Bride and Groom, Size: 16cm x 20cm, Medium: Sequence on Fabric, Year: 2008, Source: Dr. Lovina E. Onwuakpa

Artist: Kennette Dikens Nwabuoku, Title: Milk Sales, Size: 60cm x 90cm, Medium: Digital Painting, Year: 2008, Source: Pastoral Resolve

Artist: Adewoye Babajide, Title: Fertility, Height: 14 ft, Medium: Sculpture, Year: 1995, Source: De-Zeal Ken Dikens N,
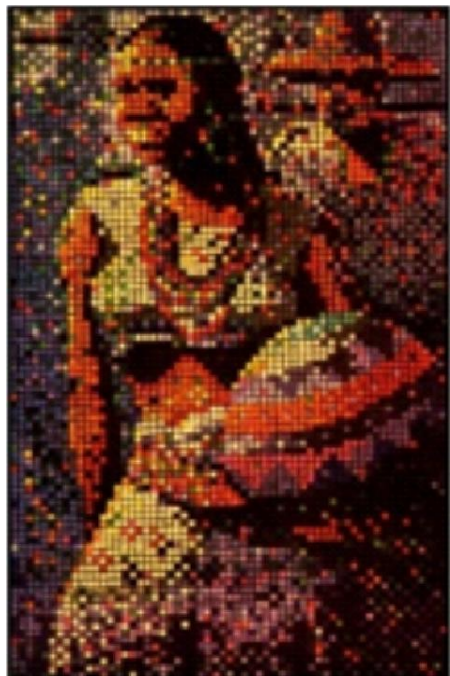
Artist: Sodade Ayoola, Title: The Family, Nations Hope, Size: 76cm x 183cm, Medium: Ceramic Tiles, Year: 2008, Source: The Artist

Artist: Cyril-Egware, P. Isemikon, Title: The Virtuous Woman, Size: 90cm x 100cm, Medium: Textile Fabric, Year: 2010, Source: The Artist

Artist: Kennette Dikens Nwabuoku, Title: Fulbe Model, Size: 60cm x 45cm, Medium: Photography, Year: 2008, Source: The Artist

Artist: Unknown, Title: Mai Nono, Size: 18 ft. x 9ft, Medium: Metal Design, Year: Unknown, Source: Kennette Dikens Nwabuoku

Artist: Nigerian National Troupe, Title: Fulani, Medium: Performing Arts, Year: 2009, Source: Somace

Artist: Gana Kaltume B., Title: Inna (The Mother), Medium: Mixed Media, Size: 58cm x 45cm, Year: 2012, Source: The Artist

4.

USING GRAPHIC COMMUNICATION SOLUTIONS IN ADDRESSING IMPACT OF CLIMATE CHANGE

GYANG Sunday S.
Seminar and Publications Department,
National Institute for Policy and Strategic Studies (NIPSS),
Kuru, Jos Plateau State, Nigeria
sunnydgyang@gmail.com

Introduction

The scenic landscape and the unquestionable, quintessential temperate weather of Jos, the capital of Plateau State Nigeria, has no doubt attracted a lot of people from various ethnic backgrounds and nationalities to settle in the state (Best, 2007). It is, however, worrisome to note that the once-temperate weather is gradually becoming warmer and the atmospheric moisture is changing. This has affected the environment, resulting in health, agricultural and economic challenges as observed in a study carried out by Olawepo and Enu-Iyun (2014). Could this be attributed to climate change?

Climate change occurs when there is an increase in the emission of greenhouse gases (GHGs) such as Carbon Dioxide, Nitrous Oxide, and Methane among other gases, into the earth's atmosphere. These gases contribute to the warming of the globe. Idowu, Ayoola, Opele, and Ikenweiwe, (2011) opine that the earth's temperature has risen between 0.4 and 0.8°C in the last 100 years. O'Neill (2012), observes that activities such as the use of fossil fuel in generating energy, emit Greenhouses gases (GHGs) into the atmosphere, which has consequently led to what is called global warming. This impact has negatively affected agricultural production and food security in many African countries (Babekir 2008).

The March 14 -15, 2019 cyclone Idai displaced over 3 million people in Mozambique, Madagascar, Malawi and Zimbabwe, resulting in the death of over 1000 people. Over 4.5 million people suffered starvation and over 70,000 persons (mostly women and children) died in 1993 in Sudan. Crops and livestock production, fisheries, forestry and post-harvest activities have been hampered due to alteration in the regimes and patterns of rainfall in Nigeria. Floods have devastated farmlands; increased temperature and humidity have brought about pest, disease and other natural disasters such as droughts and erosion (Chigbu, 2010). The over reliance on wood for domestic energy supply has increased the chances of deforestation, which is a contributory factor to desertification in northern Nigeria. Nigeria loses about 410,000 hectares of forest to deforestation annually (Nasiru, 2010).

The observed climate change in Jos Plateau, particularly the increase in temperature inspired this researcher to attempt to contribute in the mitigation and the adaptation of climate change and its impact, by employing the use of graphic communication solutions to address the problem. This is because Graphic Design as a discipline focuses on the application of design principles and creative thinking processes and techniques to solve visual communication problems (Ogunwole, 2018). This study, therefore, articulates some of the climate change communication gaps that are noticeable in the mitigation and adaptation approaches of the intervention of the impact, through the use of Graphics Images on billboard display to convey both negative and positive environmental activities and their consequences on humans and the environment. This will hopefully elicit environmentally friendly behaviour.

Mitigation and Adaptation of Climate Change

In its effort at intervening and combating the impact of climate change globally, the Inter-Governmental Panel on Climate Change (IPCC) has advocated two basic approaches: Mitigation, and Adaptation. While Mitigation approach is a response strategy at encouraging people to take measures that could reduce the amount of GHG emissions into the atmosphere (abatement), and also enhance the absorption capacity of GHGs (sequestration) Alawa1, Asogwa, and Ikelusi, (2014), the Adaptation approach encourages people to adjust to the unavoidable impact that past emissions have brought upon the environment.

For Mitigation and Adaptation of climate change impact intervention to be successful, there is a need for a multi-disciplinary approach in finding solutions to this elusive problem that is conceptual in nature. The use of graphic communication as a tool in the intervention becomes handy. This is because, for centuries, Graphic Images (GI) have been used in conveying important messages as well as serving as a tool for mobilization of people (Amedu, 2017). Using GI in conveying and motivating people into participating in the mitigation and adaptation of climate change impact may not be a fruitless effort after all.

Problem of the Study

Although much prominence has been given to the dissemination of the scientific information on climate change, it is noteworthy to state that effective communication of the impacts to ordinary people has been lacking (Rukevwe, 2008). Leiserowitz (2006) posit that public communication of climate change is mostly dominated by scientific, technical and other descriptions of the issue, most images also depict the scientific nature of climate change, with little or no consideration for others in the non-science disciplines, thus, affecting the effectiveness of the communication. O'Neill and Hulme (2009) believe that correct images have extensively great potentials to be used more as a means to communicate to the public. Images have also been used to stimulate the public towards the desired behaviour, more so that the world is undergoing an 'image revolution'. The ultimate aim of using GI is to engage the public with climate issues so that behaviour change can be achieved.

In respect to the use of images in climate change communication, Kevin Carter, a photo-journalist was commissioned by New York Times Magazine to cover the 1993 famine in Sudan. Famine is one among many other consequences of climate change in Africa. One of his famous shots depicting the whole scenario was published in the New York Times Magazine (1993). The shot captured by Carter showed a vulture patiently waiting for a hungry, weak and malnourished girl child to die so that it could feast on her dead body.

The photographic image created a shocking outburst globally. Kim and Kelly (2014) observed that both readers and journalists perceived Carter's photograph of the scenario as accurate documentation of an important social issue. They felt that the photographer should have done more to help the girl child and not necessarily looking at the deep causes of drought, famine and other impacts of climate change (Carter was strictly instructed not to touch any of the malnourished children for health reasons).

Even though the picture was able to attract global attention to the plight of the people, the responses that the photograph triggered in viewers may not be empathy but rather horror and disgust. These were invariably directed at the photographer and not the photograph. The image, therefore, could be said to have failed in stimulating people to participate in the mitigation and adaptation of climate change. On a live radio phone-in programme much later, Carter was asked what happened to the child. He replied that he couldn't wait to find out after taking the shot

because he had a flight to catch. The caller was reported to have replied thus: "I put it to you that there were two vultures on that day, one had a camera". Carter committed suicide by carbon monoxide poisoning in Johannesburg, two months after he was awarded his Pulitzer Prize for the photograph (Yeong, 2014).
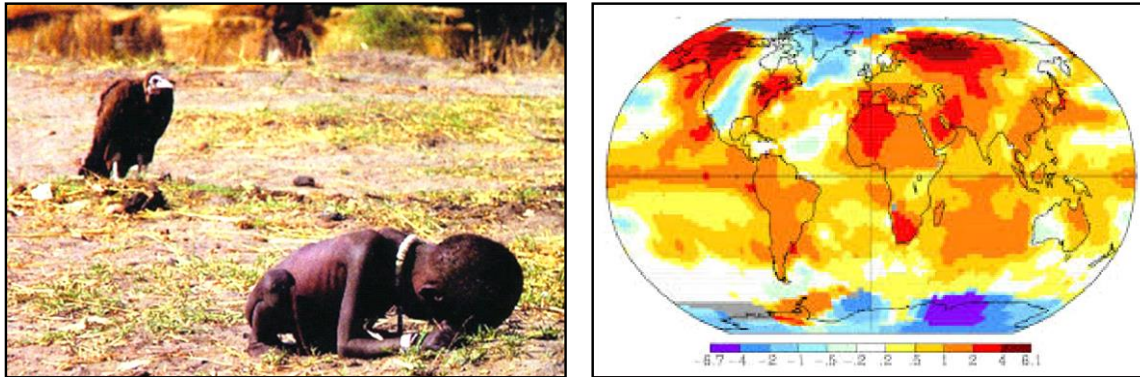
Fig. I: Malnourished child: Picture by Kevin Carter, Fig. II: Scientific image of global warming/climate (1993)
Source: https://www.pinterest.com/pinchange image, **Source: blogs.discovermagazine.com**

Moser (2010) opines that climate change communication should go beyond (or at least in addition to) science and policy issues, if success is to be achieved in terms of behavioural change. Communication should attempt to reach many more audiences, use more diverse forums, channels, a wider range of messengers, and a number of different framings. This will help the issues of climate change penetrate society at a deeper level.

The importance of images in communication as stated above has already been established. However, these same climate change images regarded as "expressive vehicle" could be repulsive, as, in the case of Carter's photograph, the shot seemed to have succeeded in inducing fear and disgust into the minds of people, all of which were not directed at the situation but at the photographer. Furthermore, scientific climate change images seem so complex for ordinary people to understand. These images succeed in creating a sense of helplessness, confusion, and ultimately do not empower individuals to do anything about it, as opposed to the concepts of adaptation and mitigation of climate change impacts. Consequently, Van Der Linden (2015) identifies three major reasons why such climate change public communication campaign interventions were not successful in the past:

a. Most public interventions ought to be, but are not designed in an integrative manner;

b. Current campaigns do not sufficiently target specific behaviours nor pay sufficient attention to the psychological determinants of the behaviours that they are trying to change;

c. Public campaigns often fail to make the climate change context explicit.

Van Der Linden (2015) observes that for any climate change communication campaign to be successful, it must be based on an integrated understanding of the psychological processes that motivate and influence pro-environmental behaviour. To achieve this, three conditions should be met:

a. interventions should be designed in an integrative format, that is, communication campaign messages should appeal to *cognitive-analytical type* (climate change

communication should be communicated in a simple language that is consistent with the level of understanding of the target audiences as the case may be); *affective-experiential type* (using emotional appeals such as fear and guilt in climate change communication can elicit behaviour change if carefully applied); *social-normative type* (communicating climate change issues can be persuasive, if such communications are consistent with the social and moral norms of the target audiences),

b.   The context and relevance of climate change need to be made simply, explicit and easy to comprehend; and

c.   Communication interventions should be very specific on the negative behaviours, and should attempt to understand the reasons why people still engage in such behaviours, thus advancing more environmentally friendly activities and the benefits.

To achieve a holistic understanding of the link between designing persuasive messages, the communication, and processing of the information, and eliciting behavioural change certainly requires the integration of insights from all relevant disciplines that deal with the subject matter. Under this circumstance, the use of Graphics Images (GI) as one of the relevant tools in graphic communication discipline comes handy in advancing the mitigation and adaptation intervention of climate change, that could elicit behaviour change. This constitutes the problem of the study.

Justification/Significance of the Study
Using graphic communication solutions in addressing Impact of Climate Change, the study is an attempt to use graphic images on billboard display as a medium of conveying climate change information in Jos Plateau, the study area, with the aim of eliciting positive climate change behaviour and also to contribute to global mitigation and adaptation of Climate Change. The importance of using this medium is essential because graphic images (GI) have the power to transcend beyond language, class, sex, education, geography, age and to reach a much larger audience (Gyang, 2015).

Aim and Objectives of the Study
The aim of this study is to effectively communicate the impact of climate change, using GI billboard display, which will elicit behavioural change towards climate change issues in Jos Plateau.

The objectives are set to help achieve the following goals:
i.   Use Graphics Images (GI) to design billboard display that will communicate the impact of climate change.

ii.   Investigate how GI billboard displays can help in achieving the mitigation and adaptation of Climate Change impact.

Research Questions
The following were the fundamental questions that the study attempted to answer:
i.   What are some of the key factors to be considered when using GI in designing billboard displays that will effectively communicate the impact of climate change?

ii.   How can GI billboard display help in achieving the mitigation and adaptation of climate change impact?

Scope and Delimitation of the Study

This study focused on two approaches of mitigation and adaptation in tackling climate change impact, using GI. The study restricted itself to the use of billboard displays. Within the Jos Plateau, which consists of six (6) Local Government Areas namely: Jos North, Jos South, Jos East, Bassa, Barkin Ladi, and Riyom Local Government Areas, this is because, billboard display has been adjudged an effective medium that has the capacity to reach out to a wide audience within a very short period and repeatedly (Yakubu, 2017).

Review of Related Literature

The aim of this literature review is to give a good understanding of published material in this field of knowledge (Toncich, 2006), in such a way that clarifies that critical decisions were made, fundamentally, giving the study a framework to build on and contribute to the existing body of knowledge in the application and use of Graphic Images in communicating the impacts of climate change.

Climate Change Communication: There is a clear missing link between the communication of climate change and the expected change from environmentally unfriendly behaviour. Thus Lorenzoni, Jones, and Turnpenny, (2007), observe that effective climate change communication should not just make information available, but should be engaging in such a way that it will elicit behaviour change, and also motivate people to be able to take positive action on climate change issues. This is because climate change is a difficult subject to perceive and understand; it does not happen within a short time frame. For that reason, clear, simple metaphors, images, and mental models, as well as captivating frames which are able to lay the foundation for a more suitable cognitive processing should be adopted in communicating climate change issues, especially for the lay audiences (Bostrom, and Lashof, 2007).

The Use of Graphic Images in Climate Change Communication: Graphic communication as a discipline has conveniently employed the use of graphic images (GI) as tools in effectively conveying important and urgent information transcending linguistic and geographical barriers (Gyang, 2015). Even though textual-based messages were used prominently in previous climate change communication, such were not very effective in interpreting and framing the exact message, as images would have. It has been argued whether climate change images and text-based messages are telling the same story. Smith and Joffe (2009) state that even though they have a common narrative, images convey messages beyond linguistic and geographical barriers.

Categories of Climate Change Visual Images: For the purpose of effective communication and eliciting behaviour change, visual images of climate change have been categorized into three groups:

(a) Iconic Visual Images: these are images of politicians and prominent figures who have dominated media coverage in certain aspects of climate change;

(b) Symbolic Visual Images: which has to do with any form of visual representation that can essentially construct meanings about climate change issues in the mind of people, knowing how distanced and vague it is, and

(c) Spectacular Visual Images: which are increasingly effective in promoting salient and strong emotion towards climate change, with 'before and after' photographs giving viewers baselines upon which to perform their representations (Smith and Joffe, 2009). From the categorization above, spectacular and symbolic visuals seem very effective in the mitigation and adaptation of climate

change impacts. Thus, this study used spectacular and symbolic visual images because of their effectiveness in the mitigation and adaptation of climate change impact.

Fig. III: Iconic Image Source: **Fig. IV: Symbolic Image Source:** **Fig V: Spectacular Image Source:**https://www.google.com.ng/search/al/gorehttp://www.google.com.ng/urlhttp://www.google.com.ng/url

Hindrances of Images in Climate Change Communication: Images are particularly powerful in shaping persuasive messages. However, images can function as both a hindrance and a help to climate change communication. Instead of eliciting positive behaviour change, images can create a sense of helplessness and apathy. Although images are capable of creating easily remembered multifaceted messages, they can also oversimplify climate change issues. When the images of impacts and causes of climate change were presented to the public, they created a feeling of hopelessness (O'Neill *et al.* 2013). These images typically include representations of drought, flooding, extreme weather events and animals and people in distress. While these images carry enormous impacts and the importance of climate change, they, however, employ fear-laden messages which may not necessarily be effective in motivating action.

Benefits of Combining Graphic Images and Text: In a study by Dewan (2015), she observes that taking advantage of what communication experts have discovered about the benefits of the visual medium, and including graphic elements into mostly text element driven communications, can lead to more effective communication. Apart from images being effortless to recognize and process than words, they are also easy to recall. Studies have shown that words enter long-term memory with a single code, but images, on the other hand, contain two codes: one visual and the other verbal, each stored in different places in the brain. The dual-coding nature of images allows for two independent ways of accessing visual memories, increasing the chances of remembering, unlike a text-only element. Dewan (2015) states that informative images seem to have more power of recall than images of decoration, just as individuals can recall images much more than informative text.

Billboard Display Design: The use of billboard display in advertising has many advantages. This study, therefore, used this media tool to communicate the impact of climate change. According to Yakubu (2017), Billboard display, as one of the media tools for advertisements has an effective reach because of its strategic exposure to many consumers. For this reason, therefore, billboard advertisements can be said to be the preferred tool by advertisers and marketers (Akanni, and Dakyes 2015).

According to Yakubu (2017), the Institute of Outdoor Advertising has put forward some guidelines for designing billboard layout, they include: Confine the number of your elements in the display to 3, if possible 2, or even one. Use a very big image(s); Keep your text elements (number of words) to a minimum; Ensure that the illustration (image) is in line with the text (text supportive of the illustration); Use steady typeface, in a medium or bold version, preferably San Serifs; Make sure the product is clearly identified; Ensure that the colour tones provide the right contrast.

Theoretical Framework
Theory of Graphic Communication: Visual Graphic communication theories promote the use of images much more than text for effective communication. This is because visual graphic images convey information to a larger audience who may not be familiar with the written/spoken language of the environment. Akanni and Dakyes (2017) posit that an effective image in conjunction with text messages explaining the image does arrest attention. Furthermore, colour effectively clarifies messages, ideas or concepts, highlights specific points, create appeal and decoration. Colour can also be effectively used as a tool for a successful persuasion exercise (Akanni and Dakyes, 2017).

Theory of Climate Change Communication: Van Der Linden (2015) opines that cognitive, experiential and normative influences in public climate change campaigns do not affect human behaviour independent of each other, but most behaviours are rather the result of carefully integrating the three approaches. When these three approaches interact continuously with each other on the same level, higher logical reasoning may evoke strong emotions and simple reflexes that can be triggered by higher functioning of the neocortical processes (Marx, Weber, Orlove, Leiserowitz, Krantz, Roncoli, and Philips, 2007).

Integrating cognitive, experiential and normative aspects of climate change communication is a clear indication of a more robust understanding of human behaviour in order to make communication effort more effective (Van Der Linden, 2015). While increased cognitive understanding will convey climate change information more explicitly, experiential approach would frame the apparent risk message, using emotions to elicit behaviour change. Normative approach, on the other hand, requires that the overall message should be designed in a contextualized format, clearly showing that other people are also engaging in a strong pro-environmental norm as expected, and is beneficial to all.

Research Design
The study used survey and experimental types of research. This is because survey research is an important and useful method of data collection for the purpose of describing/analysing the relationship between variables. In using the survey method, a questionnaire was designed basically to elicit views and opinions of respondents on the issues of climate change and how using GI's of climate change on billboard display can influence behaviour change.

The Study Area: This research is focused on Jos Plateau which comprises 6 local government areas in the Northern part of Plateau State, Nigeria, namely, Jos North, Jos South, Jos East, Bassa Riyom and Barkin Ladi.

Population of the Study: This study also seeks the opinion of practicing graphic designers from two major cities that are relevant to the study, (Jos and Zaria) on what is required in designing a billboard display that will effectively convey the message of climate change impact, and will also elicit behaviour change towards climate change issues. Purposive sampling of population was used in selecting 29 practicing graphic designers who gave their opinion on what is required to produce an effective billboard displays.

Billboard display (comprehensives) were used on respondents who were randomly selected using representational sampling in each of the six local government areas that consist of the study areas from a total population of 1,338327 (NPC 2006). According to Krejcie and Morgan (1970), for any given population that is greater or equal to 1,000,000 a sample size of 384 is appropriate. A

professional digital camera was used to capture images for graphic design of the billboard comprehensives.

Table 1: Population and Proportionate Sample Size

LGA	Population	Sample
Barkin Ladi	179805	52
Jos East	88301	25
Jos South	311392	89
Jos North	437217	125
Riyom	131778	38
Bassa	189834	54
Total	**1338327**	**384**

Table 1shows the population for each Local Government Area as well as the number of respondents to be sampled from each Local Government Area. The proportionate sample was used in order to establish the number to be sampled from the six LGAs as all the LGAs do not have a uniform or an equal population.

Instruments: The instruments used in the study include questionnaire; a professional digital camera for taking pictures; computer graphic software's; and billboard comprehensives. Two sets of questionnaires were used. One was for professional graphic designers to seek their opinion on what constitutes an effective billboard design, and the other was for the general respondents randomly selected in a representative method in the six local government areas that constitute the study area. The questions were designed using the Likert-Scale format to enable respondents to simply choose their views and options provided such as Strongly Agreed, Agreed, Strongly Disagreed, Disagreed and Undecided.

Table 2: Instrument (Questionnaire) used for the Study

S/N	Questionnaire Item	SA	A	D	SD	UD	Mean	Std. Dev.	Remark
1.	Billboard displays show unfriendly environmental activities								
2.	Billboard displays show friendly environmental activities								
3.	Billboard displays encourage environmentally friendly activities								
4.	Billboard displays appeal for reduction of gases into the atmosphere								
5.	Images on billboard display encourage tree planting								
6.	Images on billboard display show the dangers of cooking with firewood								
	Cumulative								

Table 2: shows the (instrument) used in the study to elicit the respondent's opinion

Instrument (Photographs) used for the Study

Fig.VI: Photograph of tree felling by Sunday Gyang 2018

Fig. VII: Photograph of tree planting by Sunday Gyang 2018

Data Collection: Data used in this research were collected from primary sources; specifically, and directly from Jos Plateau respondents through the use of questionnaires as well as secondary sources, which included published materials on climate change, professional Journals, and Internet-sourced materials. Photographs of climate change activities were also used.

Pilot Test: All the instruments used in this study were tested on a subgroup outside the study area (Zaria), corrections were affected and all observations noted have enhanced the study.

Validity and Reliability of Instruments: The designed questionnaire and attached billboard display designs were validated by professional graphic designers (practicing and academics). Adjustments and corrections were noted and implemented. To ascertain the reliability of the instrument, Cronbach's Alpha reliability test was used. The result of the reliability test of the instrument using Cronbach's alpha was found to be 0.89. According to Maduabum (2004), the reliability coefficient of 0.5 and above is good enough as it shows that the instrument is highly reliable and can be used for data collection for the study.

Data Analysis: All responses were transcribed and tabulated, using descriptive statistics of mean and standard deviation to analyse the data because it is a Likert scaled question with a benchmark mean. This method was adopted because it allowed the findings of this study to be inferred in line with the objective and reliable statements based on the data provided by the respondents and the context in which they were made. Statistical Package for Social Sciences (SPSS) computer software Version 20 was used.

Findings
Key factors to be considered when using GI in designing billboard displays: The findings show that majority of (respondents) graphic designers agreed that an effective billboard display should use good, clear images, short text messages, and contrasting colours.

Table 3: Instrument (Questionnaire) used for the Study

S/N	Questionnaire Item	SA	A	D	SD	UD	Mean	Std. Dev.	Remark
1.	Good images enhance Climate Change communication	19	8	2	0	0	4.59	0.63	Agreed
2.	Simple, clear short text messages convey Climate Change information	15	12	2	0	0	4.45	0.63	Agreed
3.	Combination of image(s) text and colour conveys messages effectively	19	9	1	0	0	4.62	0.56	Agreed
4.	The use of contrasting colours is effectively	6	21	1	0	1	4.07	0.75	Agreed
5.	Use bold text messages for effective viewing	24	5	0	0	0	4.83	0.38	Agreed
6.	Billboard display has an advantage of reaching a large audience	18	11	0	0	0	4.62	0.49	Agreed
7.	Billboard display is exposed to the audience repeatedly	13	16	0	0	0	4.45	0.51	Agreed
8.	Good, relevant and clear images have the capacity to engage people	9	16	2	1	1	4.07	0.92	Agreed
9.	Billboard display is an effective media tool in conveying important messages	15	11	3	0	0	4.41	0.68	Agreed
10.	Climate Change Billboards should be mounted in strategic places	23	6	0	0	0	4.79	0.41	Agreed
	Cumulative						**4.49**	**0.6**	

Benchmark: Mean ≥ 3.00 = Agree; Mean < 3.00 = Disagree

The cumulative mean response is 4.49 which is greater than the benchmark mean of 3.00 with the standard deviation value of 0.6. The climate change billboard displays also employed the use of fear as a motivator as advocated by Futerra (2005). Fear as a motivator theory encourages the use of fear in communication campaigns that desire to discourage negative human behaviour; this is because messages that have been embedded in fear seem to have successfully conveyed intended communication in the past by eliciting positive behavioural change.

Billboard Display Design:
The study undertook the design of billboard display comprehensives based on the responses of professional graphic designers on how to design an effective billboard display that will communicate the impact of climate change.

A: Cutting and Planting of Trees

Fig. VIII: A billboard display design by Sunday Gyang2018 (comprehensive) 48 sheets size

The bill board display design above is a (comprehensive) miniature of what is known as 48 Sheets (actual size of billboard) which is 3048mm x 6096mm or 3.048m x 6.096m or 10ft x 20ft. The billboard was designed using Corel-draw graphic software. It consists of clear images of two different activities; one depicts an individual cutting down a tree, while the other shows a man planting trees. The text element is brief, bold and simply states the need to plant two trees if one must cut down any, in contrasting colours. The colours used are Green, Red, and Yellow.

B: The use of Firewood for Cooking

Fig VIX: A billboard display design by Sunday Gyang 2018 (comprehensive) 48 sheets size

The billboard display design above is a miniature of what is known as 48 Sheets (actual size of billboard) which is 3048mm x 6096mm or 3.048m x 6.096m or 10ft x 20ft. The billboard was

designed using Corel-draw graphic software. It consists of clear images of a woman using firewood for cooking, and another image of a gas cooker and text element, all in contrasting colours. Of note in this design is the Text Element ***COOKING WITH FIREWOOD KILLS*** which has only four words, the use of the word KILLS is a "fear as a motivator" example aimed at eliciting behaviour change from such dangerous activities such as firewood burning as advocated by Futerra (2005). Billboard display is one important media tool that has been used in conveying information to a large number of people within a short time. There is a need for climate change communication campaign to exploit the advantages of billboard displays in reaching out audiences. Studies have shown that such high exposure enhances the recall of messages repeatedly (reach and frequency), especially if simple clear images, brief text messages, and the use of contrasting colours are employed.

Mitigation and Adaptation of climate change impact: The majority of respondents were of the opinion that images on billboard display showing tree planting (mitigation and adaptation) encourages participation in tree planting as an environmentally friendly activity. This finding, therefore, is of the opinion that billboard displays showing the dangers of cooking with firewood has the capacity to convey the message that such an activity is unhealthy to both humans and the environment and should be discouraged. In summary, it is the opinion of the majority of respondents that the billboard display within the study area would seem to have performed the function of communicating the impact of climate change and to a large extent, encouraged the participation in the mitigation and adaptation of climate change within the study area. The use of GI on billboard display was effective in engaging the public in the mitigation and adaptation of climate change as can be seen in the responses of respondents.

Table 4: Responses on Mitigation and Adaptation of Climate Change

S/N	Questionnaire Item	SA	A	D	SD	UD	Mean	Std. Dev.	Remark
1	Billboard displays show unfriendly environmental activities	137	187	6	32	14	4.07	1.03	Agreed
2	Billboard displays show friendly environmental activities	135	200	16	20	5	4.17	0.84	Agreed
3.	Billboard displays encourage environmentally friendly activities	160	132	37	27	20	4.02	1.14	Agreed
4	Billboard displays appeal for reduction of gases into the atmosphere	153	154	24	32	13	4.07	1.07	Agreed
5	Images on billboard display encourage tree planting	219	124	10	13	10	4.41	0.91	Agreed
6	Images on billboard display show the dangers of cooking with firewood	166	165	18	15	12	4.22	0.94	Agreed
	Cumulative						**4.16**	**0.99**	

Benchmark: Mean ≥ 3.00 = Agree; Mean < 3.00 = Disagree

The aggregate mean responses of the capacity of respondents to participate in the mitigation and adaptation of climate change is 4.16 which is greater than the benchmark mean of 3.00 with the standard deviation value of 0.99 implying that their responses were significant.

Conclusion
Billboard display is an effective media tool in reaching out to a large audience within a very short time. For billboard display to be effective in communicating the impact of climate change, simple, clear images should be employed. There is need also for the textual messages to be brief, catchy and bold, in contrasting colours.

For billboard display to effectively communicate the impact of climate change and engage people in mitigation and adaptation processes, the display must be able to frame the information in such a way that the target audience will understand at their own level, and also provide the people with an alternate behaviour that is more beneficial.

Contribution to knowledge
The study keys into the global climate change issues and it proffers the use of existing graphic communication concepts to solve or tackle the issue of its impact on the ecosystem and human life.

Recommendation
a. Climate change billboard displays should be installed in strategic places for effective climate change communication to take place.
b. Government and the private sector should invest in the provision of alternative source of energy such as cooking gas plants and solar energy at affordable rates.

References
Akanni, D O., and Dakyes, S. U., (2017). *Symbiotic Alliance of Graphic Ideation Component in Advertising Design in Nigeria.* Maiduguri Journal of Arts and Design (MAIDJAD). Volume 1. No. 1. March 2017. Department of Visual and Performing Arts, University of Maiduguri, Borno State, Nigeria.

Alawa1, D. A., Asogwa, V. C., and Ikelusi, C. O., (2014). Measures for Mitigating the Effects of Climate Change on Crop Production in Nigeria. *American Journal of Climate Change, 2014, 3, 161-168*. Retrieved from: dx.doi.org/10.4236/ ajcc.2014.32015 Pp. 163-165.

Alfred. J., and Hyeladi, A., (2013). Assessment of Vehicular Emissions and Health Impacts in Jos, Plateau State. *Journal of Research in Environmental Science and Toxicology (ISSN: 2315-5698) Vol. 2(4)* Pp. 80-86, Retrieved from http://www.interes journals.org/JREST.

Amedu, N., (2017). *Evaluation of the Processes of Encoding and Decoding Graphic Communication Messages of Out-Door Advertisement in Zaria, Kaduna State, Nigeria.* An unpublished M.A. Thesis, Department of Industrial Design, Ahmadu Bello University, Zaria, Nigeria.

Babekir H. H., (2008). *Food Gaps in Drought Areas affected in Sudan.* Published by The Administration of Food Security, Ministry of Agriculture and Irrigation. Khartoum, Sudan.

Best, S. G. (2007). *Conflict and Peace Building in Plateau State, Nigeria.* Ibadan: Spectrum Books Limited.

Bostrom A., and Lashof, D., (2007). *Weather its climate change? In Moser S. C, and Dilling L, (Eds.) Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change.* Cambridge, UK: Cambridge. University Press; 2007, pp31–43.

Chigbu, N., (2010). *Analysis of Land Use and Land Cover Changes of Aba Main Township Using Medium Resolution Satellite Imageries.* Unpublished M.Sc Thesis, Dept. of Surveying and Geo-Informatics, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

Dakyes S. U., and Akanni D. O., (2015), Factors that Influence Advertising Design Ideation, Mgbakoigba: Journal of African Studies, Volume 4, 2015.Pp1-2 Retrieved February 3, 2018

Dewan, P. (2015), Words Versus Pictures: Leveraging the Research on Visual Communication *Vol. 10, No. 1 Reference Librarian Wilfrid Laurier University.*

Futerra. D., (2005). *The Rules of the Game: The Principles of Climate Change Communication*. Global Environmental Change 17, 445-459.

Gyang S. S., (2015). *Adapting the Concept of ISOTYPE Way-Finding Design into the Greater Jos Metropolis.* Unpublished M.A. Industrial Design Thesis, Ahmadu Bello University, Zaria, Nigeria.

Idowu, A. A., Ayoola, S. O., Opele, A. I., and Ikenweiwe, N. B., (2011). Impact of Climate Change in Nigeria. *Iranica Journal of Energy & Environment 2 (2): 145-152, 2011. IJEE.* An Official Peer Reviewed Journal of Babol Noshirvani University of Technology.

Intergovernmental Panel on Climate Change, (IPCC), (2007). *Climate change 2007. Report of Working Group II of the Fourth Assessment Report of the IPCC*. Cambridge: Cambridge University Press. Retrieved on April 12, 2016.

International Institute for Sustainable Development, (2007). Community based adaptation to climate change Bulletin. *A Summary of the Second International Workshop on Community-Based Adaptation to Climate Change.* IISD Reporting Services.

Kim, Y. O., and Kelly, J. D. (2014). *Photojournalist on the Edge: Reactions to Kevin Carter's Sudan Famine Photo.* Pp. 205-219. Retrieved from: http://http://tanfoneline.com.

Krejcie, R.V. and Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational Psychological Measurement,* 30, 607-610.

Leiserowitz A. A. (2006). Climate change risk perception and policy preferences: The role of affect, imagery, and values. *Climatic Change* 77(1–2): 45–72.

Lorenzoni, I., Jones, M., and Turnpenny, J. R., (2007), Climate change, human genetics, and post-normality in the UK, *Futures,* vol. 39, no. 1, Pp. 65-82.

Maduabum, M.A. (2004). *Fundamentals of Educational Research*. Owerri: Versatile Printers

Marx, S. M., Weber, E. U., Orlove, B. S., Leiserowitz, A., Krantz, D. H., Roncoli, C., and Philips, J., (2007). Communication and mental processes: Experiential and analytics processing of uncertain climate information. *Global Environmental Change*, 17, 47-58.

Moser, S. C., (2010), *Communicating climate change: history, challenges, process and future directions* 2010 John Wiley & Sons, Ltd. WIREs Climate Change 2010 1 31–53. DOI: 10.1002/wcc.011

O'Neill S. J., Boykoff, M., Niemeyer, S., Day, S. A., (2013). On the use of imagery for climate change engagement *journalhomepage:www.elsevier.com/locate/gloenvcha*.

Retrieved from: https://doi.org/10.1016/j.gloenvcha.

O'Neill, S. J., (2012). Image Matters: Climate Change Imagery in the US, UK and Australian Mass Media. In: *Culture, Politics and Climate Change Conference*, Boulder CO, 13-15 Sept, University of Colorado-Boulder.

O'Neill, S. J., and Hulme, M., (2009). *An Iconic Approach for Representing Climate Change.* Global Environ. Change, 19, 402–410.

O'Neill, S. J., Nicholson-Cole, S. (2009). Fear Won't Do It: Promoting Positive Engagement with Climate Change through Imagery and Icons. Science Communication 30, 355–379. Retrieved: July, 7, 2016.

Ogunwole S. O., (2018). *Principles and Issues in Design* (INDE412) Lecture Notes, Department of Industrial Design, Ahmadu Bello University, Zaria, Nigeria

Olawepo, A. O., and Enu-iyin, O., (2014). Comparative Study of Climate Variability over Two Climatic Zones of Nigeria. *Journal of Science* Volume 1, Number 1, 2014, pp. 142 - 153 (Printed in Nigeria)ISSN: 2408 – 4840 © 2014.

Rukevwe O. V., (2008). The Science of Climate Change: *Implication for Africa. J. Arid Environ.* 7(1):72- 85

Smith, N. W., and Joffe, H., (2009). Climate change in the British press: The role of the visual, *Journal of Risk Research,* vol. 12, no. 5, pp. 647-663.

Toncich, D. (2006). *Key Factors in Postgraduate Research: A Guide for Students.* (Chrystobel Engineering).

Van Der Linden, S., (2015). *Towards a New Model for Communicating Climate Change*. In. S. Cohen, J. Hingham, P. Peters and S. Gössling (Eds.). Understanding and Governing Sustainable Tourism Mobility: Psychological and Behavioural Approaches. Routledge: Taylor and Francis Group.

Yakubu, D.J.M., (2017). *Advertising Design Production (INDE 431)* Lecture Notes, Department of Industrial Design, Ahmadu Bello University, Zaria, Nigeria

Yeong, W. K. O., (2014). Our Failure of Empathy: Kevin Carter, Susan Sontag, and the Problems of Photography Think Pieces: *A Journal of the Arts, Humanities, and Social Sciences 1 (1) 'Empathy',* Pp. 9-17 Retrieved from: DOI: 10.14324/111.2058-492X.0029.

5.
APPLICATION OF SINGLE FIRING TECHNIQUE FOR EFFICIENCY IN FUEL AND TIME

ABUBAKAR Ezra / MATHIAS Helga
Department of Industrial Design, Modibbo Adama University of Technology, Yola
Department of Industrial Design, University of Maiduguri
ebubakar@gmail.com / mathias.helga@gmail.com

Introduction
For thousands of years ceramic bodies have been developed and fired to a varying range of temperature using a variety of kilns, firing fuels and techniques. During these periods, the priority of firing ceramic wares was principally the attainment of either bisque or gloss firing temperature with little or no attention paid to firing efficiency, fuel consumption or the issues of environmental protection. With the rising issues of sustainability however, fuel efficiency and sufficiency, climate change and the protection of the fast eroding ecosystem taking the center stage as topical issues for discussions in conferences, seminars and workshops globally, it is not surprising that, ceramic processing and firing is no longer business as usual. In view of this, researches in ceramics material science, fuel and firing technology are now streamlined to reflect these issues as well as other emerging concerns as they relate to sustainable ceramic practice (Abubakar & Sadiq 2018a; Abubakar & Sadiq 2018b: Englund, 1995). The thrust of this study therefore, is to develop a single fired (once fired) ceramic body and glaze with a view to making ceramic processing efficient in time and fuel usage.

Literature Review
Ceramic Glaze and Bodies
Humans by nature are inclined to add beauty to everything they make. This is illustrated by the primitive decorations found on pottery shards and metals in ancient times (Englund, 1995). Of significance to the decorative aspect of ceramic was the discovery of burnished shards in the Anatolian plateau, of Catalhoyuk Turkey dating about 7500BC to 5700BC and the application of the Egyptian white slip on red ceramic body to reduce the porosity of the ware (Englund, 1995). Although, burnishing can be done before or after firing, there was however no indication at what temperature the Anatolian Burnish or the Egyptian slip was fired to. The Fuji people have also been known to solve the problem of porosity by the use of resin; where a piece of pot is removed from open bonfire while still hot and resins are applied to the inner part of the ware (Englund, 1995). The melted resins do not only seal the porous surface of the earthen ware body but also provided lustre to its surface. It however appears that, salt glazing which involves the introduction of salt into a kiln at a high temperature, resulting in the release of sodium fog and the coating of the ceramic ware by the sodium fog has some semblance to the Fuji technique, which involve the application of resin on a hot ware. Given the similarity between the Fuji and the salt glazing technique and the fact that, Fuji technique predates salt glazing technique, it is then possible that, the Fuji technique is a precursor to the development of modern glazes.

The discovery in about 5500BC of a blue-green glaze in Egypt is believed to be the first attempt at what can now be referred to as modern glaze (Jamieson, 2003). This type of glaze, which was also known as Mohammedan blue was dominantly used in Middle Eastern ceramics. Since the discovery of primitive glazes and development of the earliest modern glazes, numerous studies have been conducted using a variety of ceramic materials to develop an array of glaze recipe for a wide range of temperature. For example Ajala (2009) reports on the development of earthenware glaze using eucalyptus leave and cullet. Isa (2018) reports on the use of cullet, maize cob ash, feldspar and

kaolin for development of earthenware glaze. Similarly, Datiri (2015) develops a glaze recipe using volcanic ash, while Umar (2000) works on the production of high temperature glazes using Alkaleri kaolin in Bauchi State.

Earthenware Ceramic Body and Glazes

The earliest ceramic wares produced, which are now known technically as earthen ware fall within the temperature range of 1150^0C -1160^0C. Unglazed earthen ware bodies are usually porous in nature, and characterized by brittleness. They were also known to chip or break easily leading to reduced functionality and lifespan. Despite these shortcomings, earthenware has been the dominant feature of the early years of ceramic production in both individual potteries and industries across the world. With the development and application of glazes to earthenware, issues of porosity were eliminated with a significant increase in strength and life span of the ceramic ware. Examples of glazed earthenware produced in Europe include the Palence of France, the Majolica of Spain, and Italy, and the Delft of Holland (Englund, 1995).

Middle fired Ceramic Body and Glaze

This class of body and glaze falls within the temperature range of 1100^0C-1200^0C (Englund, 1995). Studies on this range of glaze temperature appear to be scanty when compared with earthenware glaze and high temperature bodies and glazes such as stoneware and porcelain. An example of studies conducted on the development of middle fire ceramic body and glaze is the one reported by Englund (1995) where glaze and body were developed and fired to$1100O^C$ and 1200^0C.

High Fired Ceramic Body and Glaze

Glazes classified under this category fall within the temperature range of 1260^0C - 1300^0C (Segar cone 8-10). Beginning from the lower end of the temperature range (1260^0C) and fired upward, bodies and glazes that vitrify within these temperature ranges are technically regarded as high temperature bodies and glazes. Stoneware and porcelain body and glazes fall within this temperature range. The characteristic feature of this type of body is its high verification, which tends to close all the pore spaces within the body particles. The earliest record of stoneware ceramics was traced to the Ann- yang Honan province of China. Although, the exact period when these wares were produced is debatable, with some authors reporting 3200BC- 2900BC; 2500BC-2000BC and 1800BC, it is however clear from the carbon dating of pottery shards that, at the time pots were produced under earthenware temperatures in Europe and the Middle East, the Chinese were producing 'hard baked' and "hard white pottery" which was believed to be stoneware (Peterson, 1992, Englund, 1995)

Two Stage Firing

Two stage firing was believed to have been pioneered in Europe as a remedy to the problems of breakages and waste experienced during the firing of tin oxide (D'Souza, 2019) and Majolica (Smith, 2001). Ever since it was introduced, the two stage firing has grown in popularity and acceptability across the ceramics world. The first stage of firing is what is commonly known in the ceramic profession as bisque or biscuit firing. This firing which falls within the temperature range of 500^0C-900^0C or in some cases 1000^0C is done with the sole aim of transforming the leather hard ceramic into hard and porous material. Once the ceramic is successfully bisque fired, it is then ready for the second stage of firing, where slipped glaze is applied to the hard porous ceramic and fired to a vitrification temperature.

Two stage firing, particularly the second part of the firing, which involves the application of glaze to a porous ceramic ware and fired to a vitrification temperature was in the researchers' opinion

made more prominent by the concept of division of labour, resulting from the industrial revolution of Europe which emphasized the breaking and specialization of the pottery firing process as well as the domiciliation of gloss firing technique across European pottery canters and studios.

Once / Single Glaze Firing Technique

Once/single firing technique is not a recent development as potters around the world have been practicing it for centuries (D'Souza, 2019; Smith, 2001 & Englund, 1995). Examples of the use of 'once fired technique' include the Raku, Bonfire, Saw dust and pit firing techniques. Ceramic wares produced from once fired techniques include plant pots, tiles and sanitary wares. This class of ceramics forms the bulk of wares produced globally (Englund, 1995). Given that the once firing technique eliminates bisque firing from the firing equation, the following benefits can be accrued to the ceramicist: the removal of first stage of firing (Bisque) could result in savings in terms of the cost of fuel (reduced fuel use) and reduction in firing time (D'Souza, 2019). The elimination of bisque firing means that, time spent on setting the kiln, firing, unloading and off loading the bisque kiln could now be channelled into other productive endeavour such as the production of more ceramic wares. Once firing is also profitable to the environment; this is because as less fuel/energy is consumed, less carbon dioxide (CO_2) is released into the environment. Once /single firing also enhances the carbon foot print of ceramics processing by contributing less greenhouse gas emission into the climate system.

Efficiency of Fuel and Time in the Context of Ceramic Firing

Two stage firing has been reported above to be a time, energy and resource consuming process. For example, depending on the size of the kiln, up to 12 hours or more could be expended in a bisque firing cycle. Similarly, up to 24 or more hours could also be expended in glaze firing cycle (D'Souza, 2019). There is also the reported issue of fuel consumption and green house gas emission. This is based on the fact that, the longer the firing time, the more energy is consumed; the more CO_2 is emitted to the atmosphere and vice versa. With the current global clamour for efficiency in production and consumption which revolves around reduction in carbon dioxide (CO_2) emission, the sustainable use of natural resources as well as savings in energy usage, it is not out of place to rejuvenate and sustain the "once firing" technique by exploring the suitability of ceramic materials from Bauchi and Numan for the development of body and glaze materials capable of firing once to gloss temperature.

Aim of the Study

The aim of this study is to develop body and glaze materials suitable for once/single firing to a cone temperature of $1200^{\circ}C$ using ceramic raw materials from Adamawa (Numan) and Bauchi States.

Materials and Method

Materials

White ball clay and Siltstone used for this study were dug along the upper bank of river Benue in Numan, Adamawa State, while granite and grog were collected from the Sahel quarry site in Gudum Hausawa and the Department of Industrial Design, Abubakar Tafawa Balewa University Bauchi in Bauchi State. Prior to their use, the raw materials were washed, ground and sieved with a 200-micron meter sieve to remove stones, metals, glass shards and other impurities that may hinder the process. Other materials used in the study were digital weighing scale, 45 CF downdraft kerosene kiln, kerosene burner, thermocouple thermometer model 434 and a plastic bucket.

Methods
Chemical Analysis
The red silt stone, white ball clay and granite used for the study were analysed using Atomic absorption spectroscopy (AAS). The procedure which is based on the ability of free metallic ions to absorb light is used to quantitatively determine the volume of elements in a sample by the optical (light) radiation of free atoms in gaseous state.

Batch Formulation
The materials used for the development of body and the slip glaze recipe for once firing were formulated using trixial glaze blends of 21 titles (figure 1) as recommended by Umar (2001). From figure 1, trixial blends of tile 1, comprising 60% clay, 30% granite, and 10% siltstone were selected and used for the body while tile No 81 which comprises of 10% clay, 60% granite and 30% siltstone were used for the glaze formulation. Once firing has been attributed with flaking, the presence of high clay content in the body formulation has the tendency to eliminate this problem (Hill, 1986). Similarly, to increase the dry strength of the green ware (body) grog was added as also recommended by Hill (1986).

Clay

	1	C = 60, G = 30, S = 10	

| 2 | C = 50, G= 40, S = 10 | 3 | C = 50, G = 30, S = 20 |

| 4 | C = 40, G = 50, S = 10 | 5 | NWC = 40, G = 40, S = 20 | 6 | C = 40, G= 30, S = 30 |

| 7 | C =30, G = 60, S = 10 | 8 | C =30, G = 50, S = 20 | 9 | C =30, G= 40, S = 30 | 10 | C =30, G = 30, S = 40 |

| 11 | C = 20, G = 70, S = 10 | 12 | C = 20, G = 60, S = 20 | 13 | C = 20, G= 50, S= 30 | 14 | C = 20, G= 40, S = 40 | 15 | C = 20, G = 30, S = 50 |

| 16 | C = 10, G = 80, S = 10 | 17 | C = 10, G = 70, S = 20 | 18 | C = 10, G = 60, S = 30 | 19 | C = 10, G =50, S = 40 | 20 | C = 10, G = 40, S = 50 | 21 | C = 10, G = 30, S = 60 |

Granite   Figure 1: 21 Tiles Triaxial Blend   Siltstone
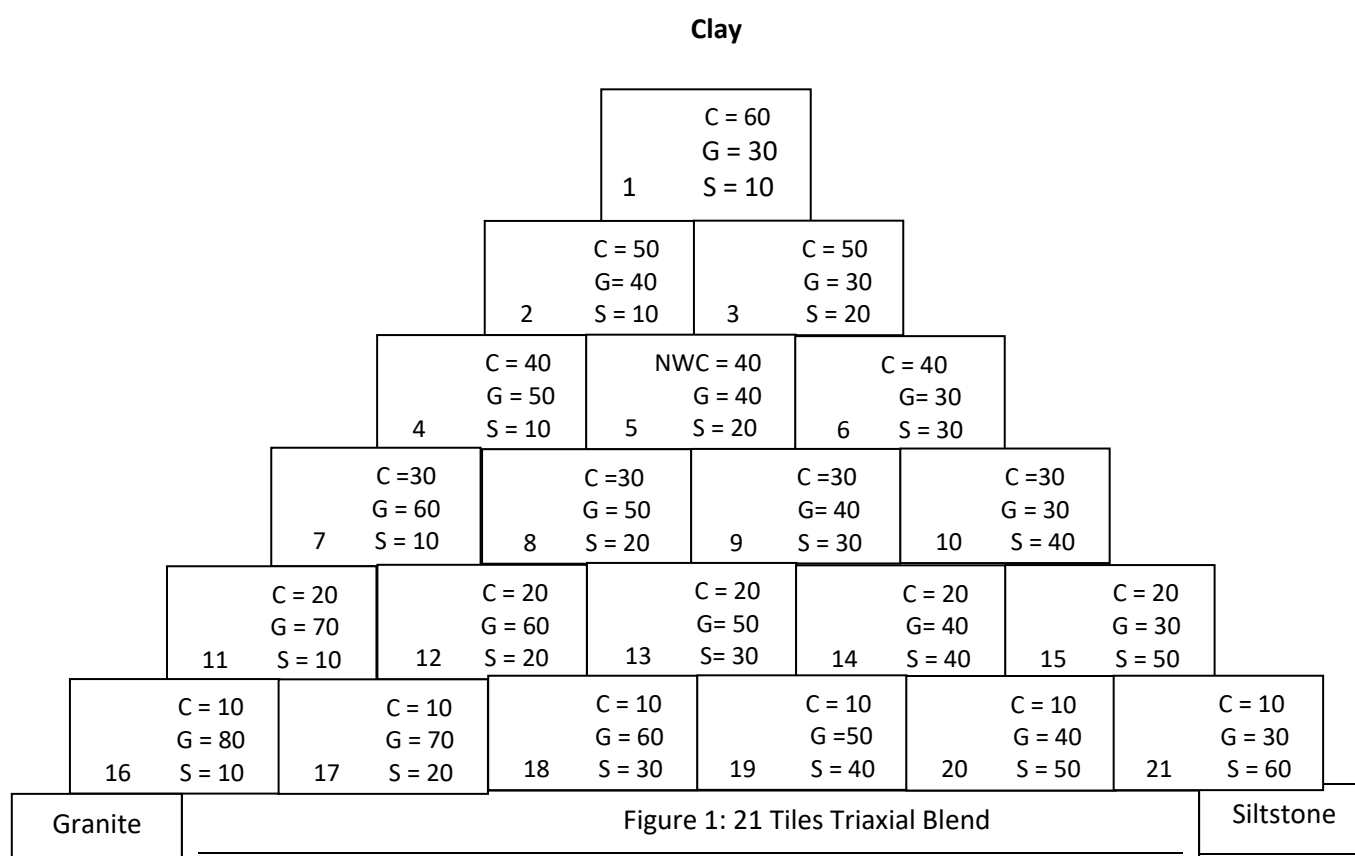
Glaze Application
The thrown body was allowed to bone dry before glaze is applied to it using the dipping technique. This was done to eliminate the possibility of the thrown ware crumbling due to water absorption and explosion during firing (D'Souza, 2019 and Hill, 1986).

Firing

The developed wares (body and glaze) were fired once in the reduced kiln atmosphere **(**Plate 1). Firing started slowly and made to increase progressively. This was done to allow for soaking of the ware and the prevention of shattering (Hill, 1986)

Plate 1: Body and glaze fired to 1200⁰C

Results and Discussion
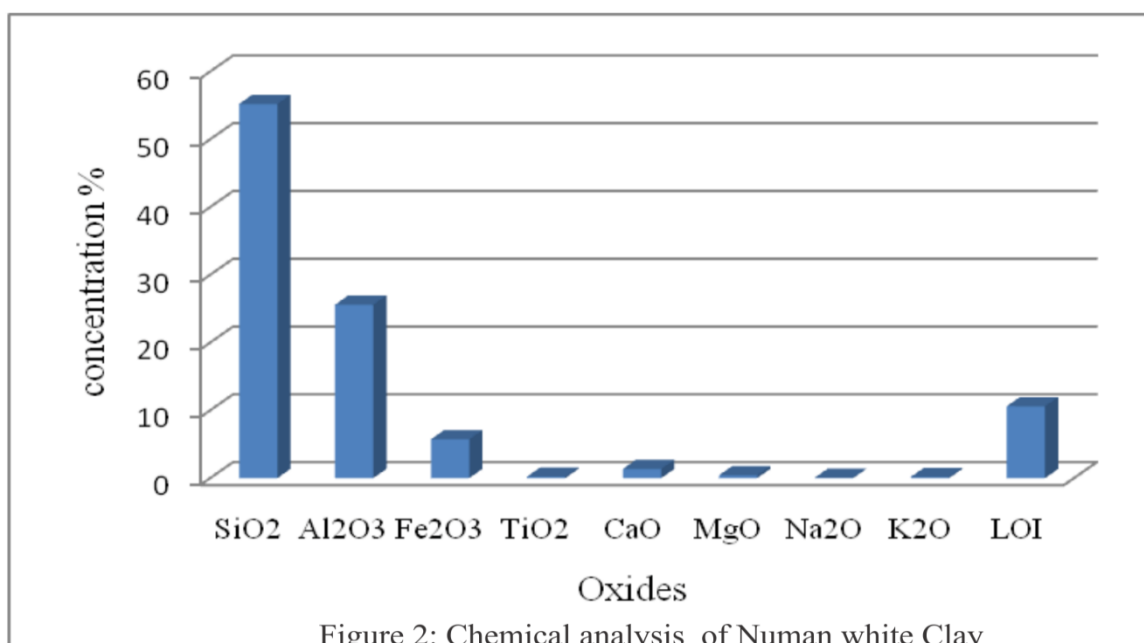
Figure 2: Chemical analysis of Numan white Clay
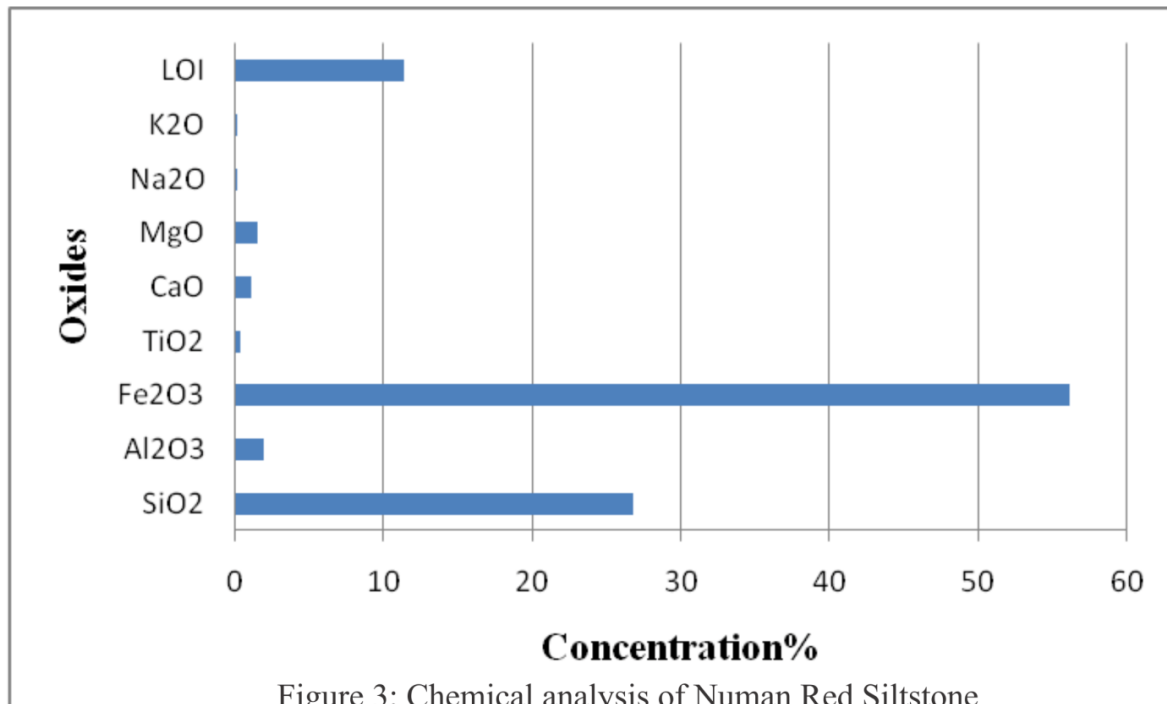
Figure 3: Chemical analysis of Numan Red Siltstone

The result of the chemical analysis indicated high percentage of SiO_2 (55.20%) followed by Al_2O_3 (25.58%) (Fig, 3). These values are a strong indication of the binding capability of the ball clay. There was the presence of other fluxing oxides such as, CaO, MgO, Na_2O and K_2O in the Numan red siltstone. The high percentage of iron oxide however, made it a dominant fluxing agent and responsible for the reddish appearance of the fired ware.
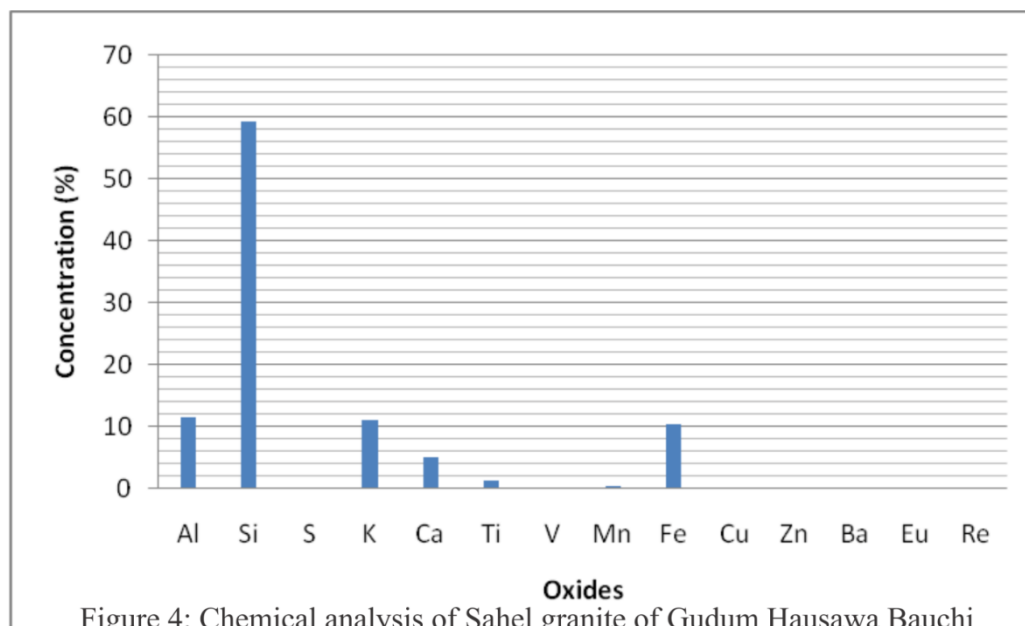
Figure 4: Chemical analysis of Sahel granite of Gudum Hausawa Bauchi

The result of the chemical analysis for Gudum Hausawa granite indicated high percentage of SiO_2 (59.10%) and Al_2O_3 (11.3%) (Fig, 4). The high content of alumina is believed to be responsible for good coefficient of expansion and contraction between the body and the glaze; hence helping the glaze to fit into the body without problems. Though, high content of flux is required to meet up with

the high content of silica (59.10%) for the formation of silicates in high temperature glazes, the low content of flux in the granite does not seem to have affected the firing of both body and glaze to 1200°C. The ability of the body and glaze to adhere was attributed to the fact that both body and glaze were formulated from the same constituent raw materials.

Firing

Figure 5: Firing Time and Temperature Relationship in Double Firing
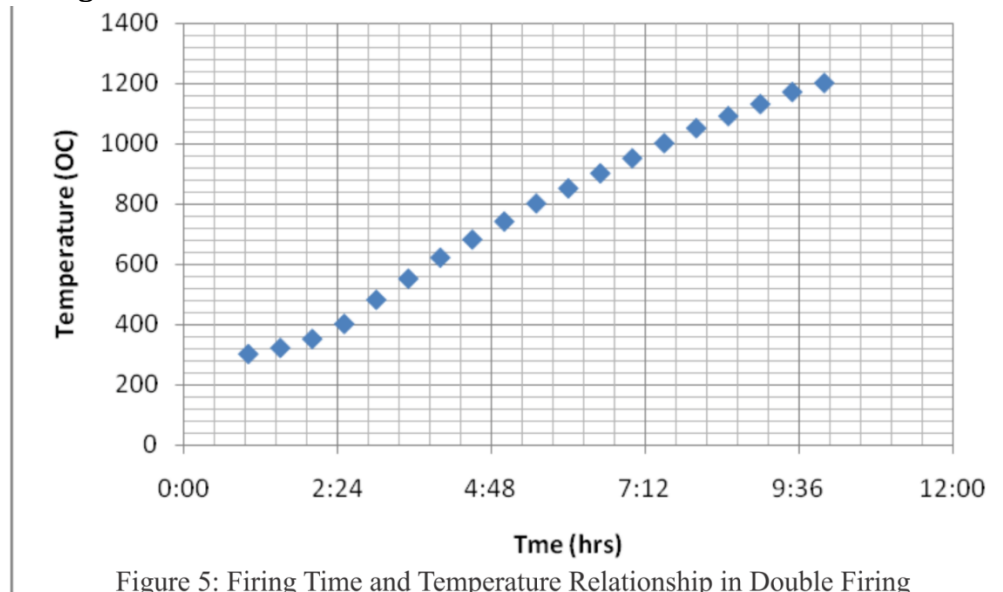
In the two-stage firing, 30 litres of kerosene was used to attain bisque firing temperature of 900°C in 4 hours while in the second phase of firing, 45 litres of kerosene was used to attain gloss temperature of 1200°C in 6 hours. This therefore, means that, a total of 75 litres of kerosene put at the cost of N1,340 firing was expended to attain a firing temperature of 1200°C in a total time of 10hrs (Fig. 4). In the single phase firing (once firing), 45 litres of kerosene was used to attain gloss temperature at 1200°C in 8 hours. This clearly shows a reduction in the volume of fuel consumption from 75 to 45litrs, which translates to a saving of 30 litres of kerosene. A 2- hour savings in time of firing was also recorded with a reduction in firing time from 10 to 8 hours. Nonetheless, it suffices to state that, apart from the tiring and demanding nature of the two-stage firing, which involves loading, preheating, bisque firing, off loading, loading and glaze firing, the entire process could take up to 60 or more hours, depending on the size of the kiln. This is aside the requirement for raw materials, energy and manpower.
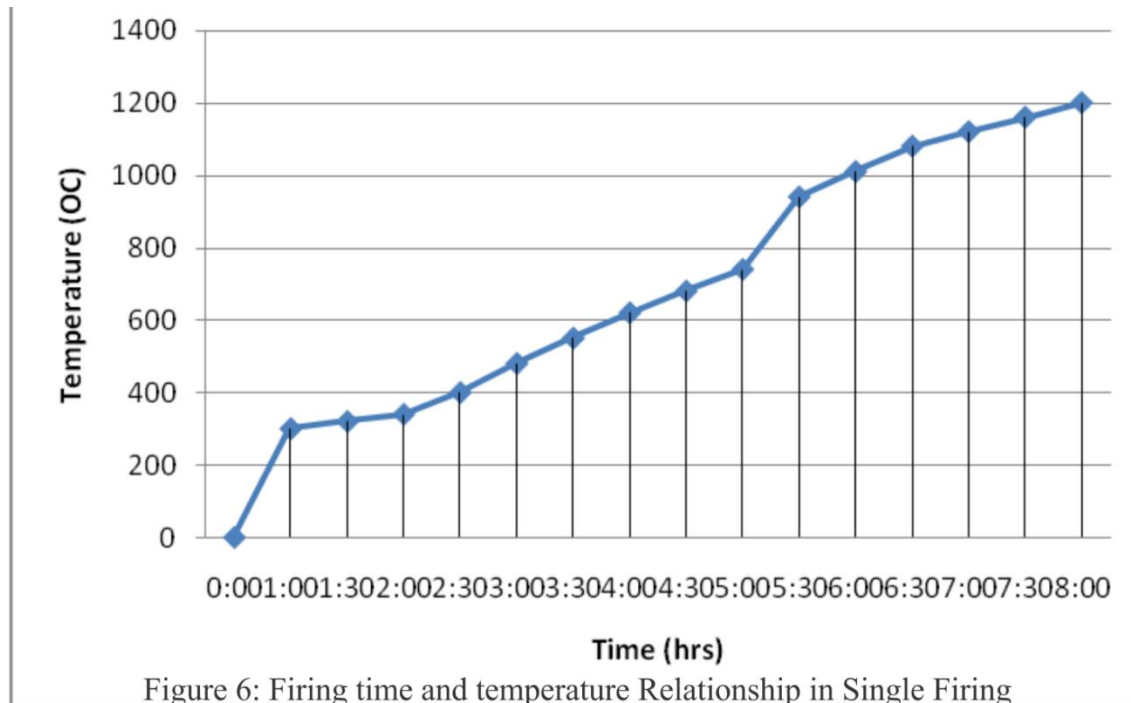
Figure 6: Firing time and temperature Relationship in Single Firing

Conclusion

The application of once firing has been shown to reduce the duration of the firing cycle and the amount of time expended in the firing process. The reductions in firing cycle and fuel usage have significant impact on reducing the emission of greenhouse gases and enhancing green credentials of ceramic firing. Similarly, the material and time spent on the 2- phase firing (Bisque and Gloss) can now be channelled into other aspects of social and economic development. In spite of the possibility of having some problems such as flaking, cracking, breaking and even explosion during the single firing when not handled carefully, the advantages seem to out-weigh the disadvantages.

References

Abubakar, E., & Sadiq, Y.O. (2018) Review of Trends and Developments in Ceramic Fuels and Application of Biogas in Ceramic Kiln Firing in Nigeria. *Maiduguri Journal of art and Design,* volume 3, Pp. 155-162

Abubakar, E., & Sadiq, Y.O. (2018). The Potential of Biogas as Fuel for High Temperature Ceramic Kiln Firing. *FUTY Journal of the Environment*. Vol.12, No2. Pp. 9-13

Ajala, A. (2009) Studies on the production of earthenware glazes from eucalyptus leaf ash and Cullet. Unpublished M.Sc. Project submitted to the department of Industrial Design, Abubakar Tafawa Balewa University, Bauchi.

Datiri, Y.C. (2015) Beneficiation of volcanic ash for ceramic glaze. Challenges and problems Ashaku Journal of Ceramics vol.12. Ahmadu Bello University Zaria

D'Souza, S. (2019) Single fire glazing in pottery. Retrieved on May, 20th, 2019 from www.hesprucecrafts.com

Englund, I. O (1995). *Glazes between 1100 (degree) C and 1200 (degree) C for studio pottery: a systematised development of raw glaze theory and practice for once fired, mid fire purpose.* Unpublished PhD Thesis. Submitted to the department of Creative Art, University of Wollongong, Australia.

Hill, S. (1986). An approach to single firing. Ceramic monthly retrieved on April, 12th 2019 from www.apprach to single firing.com

Isa, A. H. (2018) Utilization of maize cob ash for ceramic glaze formulation.

Unpublished M.Sc Thesis, submitted to the department of Industrial Design, Abubakar Tafawa Balewa University, Bauchi

Jamieson, A (2003) Egyptian faience. *Ceramics Technical retrieved on March,* 12th 2019 from
http://www.ceramicart.com.au

Sadiq, Y.O. (2004). *Exploration and Adaptation of biogas to ceramic kilns.* Unpublished PhD Thesis, submitted to the department of Industrial Design, Abubakar Tafawa Balewa University, Bauchi.

Smith, A. L. (2001). Bonfire II : The Return of Pottery Firing Temperatures Retrieved on February, 14th 2019 from https://doi.org/10.1006/jasc.2001.0713

Peterson, S. (1992) The craft and Art of Clay, Eaglewood Cliff. New York, Prentice Hall

Umar, A.D. (2000). Studies on the qualities of Alkaleri Kaolin in High Fired Ceramics. Unpublished PhD thesis, Submitted to the Department of Industrial Design, Abubakar Tafawa Balewa University, Bauchi

6.
AN ASSESSMENT OF NATURE IN CONTEMPORARY VISUAL ART

DAUDA Alabi Usman /
Department of Fashion Design and Clothing Technology,
College of Science and Technology,
Kaduna Polytechnic, Kaduna
usmandaudaalabi@gmail.com

And

ANTHONY Eleh
Department of Photography
School of Art and Industrial Design,
Auchi Polytechnic, Auchi1
elehanthony@yahoo.com

Introduction
Historically, man has been identified as a painter as early as 25,000 BC. His first pictures were of animals, (Nature.com, 2013). Despite this, it is remarkable that nature as a subject is largely being overlooked. Nature in the arts reflects in an exciting diversity of works that have been produced by artists throughout the centuries. Leica (2015,) proffers that humans created art of some sorts since the beginning of their existence, and have always drawn inspiration from nature in some way, shape or form. As cavemen, drawings of animals were made on walls to make artistic statement about the conservation of the earth.

Todd (2013,) relates that art has long been associated with nature, from the cave paintings found in Christo. An artist's interpretation of nature heightens the bond of connection and creates an unspoken, ineffable resonance with the viewers. Artists try to distill the essence of their own emotional response, and the tools they use are light, colour and mood. Oftentimes when we think about nature, there is an ambiance that lingers in our memory. The aesthetics of nature is multi-dimensional and multi-sensual and part of being human is having a conscious awareness of the beauty in nature. Artists are important interpreters and translators. The depiction of an ideal and perfect nature has long filtered into the 20th and 21st centuries. One can observe dramatic shifts in attitudes toward nature. Also, at the beginning of the 20th-century, artists appeared to be questioning academic art for its lack of freedom and flirted with so many isms: secessionism, fauvism, expressionism, cubism, futurism, constructivism, Dadaism, and surrealism. Among these isms, nature showed to be the creative energy that loomed in them. Nature and the built environment present diverse themes for artistic expression, and these have been the concern of artists throughout the ages.

Nature
Nature in the broadest sense is equivalent to the natural world, physical universe, material world or material universe. Nature refers to the phenomena of the physical world and to life in general. McArdle (2019), relates that creative exploration from nature in art can take endless forms, because nature provides us with such a vast wealth of inspiring phenomena to work with. Nature is all around us and deep within us. We are inseparable from it and artworks based on nature take many forms and serve many purposes because nature is an immense topic that encompasses so many things. Nature study provides endless list of topics and subtopics that may appear in related

artwork. Flowers, plants, trees, animals, cells, bodily systems, weather, geology, matter, energy, fossils, water, fire, environment, conservation, evolution, birth, growth, aging, decay, change and culture etc. So if an artist wants to create a work of art based on the theme of nature, the artist has a whole lot of ideas to work with.

These ideas take many metaphoric, visual forms from photorealism to abstraction. Elaine (2010) asserts, man and his relation to nature was perhaps the first theme to appear in art. This evidence is in France's famous Lascaux Caves, of 15000 BC, containing nearly, 2,000 figures grouped into three main categories; animals, human figures and symbols that are considered prehistoric observations of nature. In one way or another nature for centuries has remained the preferential theme of creative art. Brady, (2013) explains that, nature has also been a source of joy and pleasure, as well as of fear and mystery when it is given the form of earth as life's foundation; nature expresses truth and honesty though somehow being endangered by technological advancement.

In addition, with the passage of time, man's relationship with nature has been marked with creative essence in art. The concept of nature entertained by the various human communities has determined this relationship while reinforcing or transforming it. Primitive man made use of the natural elements; Baroque artists as Poussin in Elaine (2010), perceived a harmonious ideal in nature that works of art were expected to render, irrespective of incidental and temporal peculiarities. Burchfield (2010) views nature as a living wonder of endless variety and magic. For Rothko, nature represented the power of ritual that art can interpret through images and symbols (Elaine, 2010).

Nature in Visual Art
Nature in visual art becomes significant when we make an active connection with it. Like a canvas in a gallery, a landscape or aspect of the natural comes to life in the eyes of the people who look at it. The act of observation in nature and not as a virtual experience brings about a very different experience that is capable of sometimes posing questions. In return, the observer confers meaning on the works of nature and artists. Contemporary artists have increasingly thematised the threat to and human intervention in nature. This understanding of nature has, however, been observed as culturally constructed and the product of political ideologies. Nature, according to Zamora and Leao (2017), offers a multi-sensory experience and we have an everyday emotional relationship with it.

Undeniably, nature even today offers artists refuge and guidance. Brinckerhoff, in Maja and Reuben (2016), stipulate that artistic representation of nature is closely linked with the social perception of the natural world. They believe that there is a two-way process, society draws its ideas about how to view and experience nature from the conventions of visual culture, while at the same time artists reflect and react to current societal attitudes to the environment. There is a long tradition of viewing art as a mirror of nature, but what should be also recognized is the reciprocal practice of aesthetically appreciating nature in terms of art. In other words, when admiring a natural landscape, we apply the same aesthetic conventions we use for appreciating a work of art. We usually go into the country and discover beautiful views, while always remembering the criteria of landscape beauty as established by critics and artists.

Nature as a subject matter in contemporary art, according to Maja et al (2016), acts as an ecological key, while correspondingly artists contribute to a progressive shift in how we relate and envision nature. Despite the modernist principle of art-for-art's-sake, there is a clear interconnection between artistic vision and society's experience of nature in terms of alienation, separation and

distance. Suzi (1998,) stresses the interdependence of separation from nature and framing as a way of perceiving.

When we look at works of art, we think about things we have seen, heard, or experienced from our natural surroundings. Art is rarely created in a vacuum. Artists constantly reference the past built on timeless themes, outdated models, forgotten histories, or traditional methods and techniques to realize new ideas. Understanding historical precedents therefore, is an important part of providing context and informing our experiences with art. Since images were first painted in caves, artists have continued to challenge the notions of what art is and how it can be made.

Conceptually paralleling Plato's ideas, Michelangelo, believed that the image the artists produce must come from the idea in the artists mind. The idea then is the reality that the artists' genius has to bring forth. Artists are not however, the creators of the ideas they conceive. Rather they find their ideas in the natural world, reflecting the absolute idea, which, for the artist, is beauty. Contemporary visual art in Nigeria and the place of nature cannot be complete without referring to the instrumental figures who, through their solo efforts, brought Nigerian modern art into the world of art history. History reveals that contemporary Nigerian art started with Aina Onabolu (1881-1963). Onabolu did not only start the art of drawing and painting but also fought single handedly to put art in the school curriculum in 1927. Onabolu is revealed to have consciously gone into art of figure drawing and painting to prove and disabuse the minds of the then Europeans. What happened later was the discovery of other talented indigenous artists who did not only continue from Onabolu but also made their distinct landmarks in the propagation of visual art. Such notable artists include Akinola Lasekan (1921-1972), Justus Akeredolu (1915-1984), Ben Enwonwu (1921–1994), Etsu Ngbodaga and others. They are believed to have started the first decade of contemporary Nigeria art practice; having a common flair for nature in their art works (Egonwa, 2001).

The year 1950 marked the beginning of the second decade of contemporary Nigerian art led by Ben Enwonwu. These groups of artists were commissioned to execute art works more in keeping with naturalistic mode of representation that was made popular in the first decade. Nevertheless, in satisfying their clients they enveloped their own ideas and concepts in various forms of stylizations, abstracts of naturalistic inspired ideas into the different forms of their art. The leading exponent was Ben Enwonwu. They expressed themselves through painting, sculpture, ceramics, graphics and textiles. They employed modern conventional styles to reflect on their own training to synthesize and execute a truly contemporary Nigerian visual form of art, derived from Nigerian cultural milieu. The works were individualistic rather than ethnic in style or form. They were laden with inherent meanings drawn from within traditional ideologies. These ideas with naturalistic tendencies by artists of the second decade are being extended and used in various ways by today's young contemporary Nigerian artists.

Egonwa, shows that artists of the third decade are best described as experimentalists, experimenting with natural visual imagery that was derived from tradition. The idea of "Natural Synthesis" initiated by the artists of previous decades is being popularized in the Zaria School of Art, improving on the development of a truly contemporary Nigerian form of art, based on its cultural and natural environment. Among the third decade's leading artists is Bruce Onobrakpeya who is known for his unique utilization of nature in the practice of contemporary printmaking. He has not only developed new art forms inspired from nature but has brought about new terminologies, which have been accepted for inclusion in the contemporary dictionary of art.

It is argued that Enwonwu's spirit of synthesis became the compass upon which the Zarianist members based their popular theory of "Natural Synthesis". These artists influenced other followers and students who have some common and unique characteristics, which reflect in their individual works which for decades dictated the trends in Nigerian contemporary art. Their ideologies according to Filani (1998) were carried to other formal schools or workshops to create a vibrant artistic revolution.

Unseen Art Scene (2009), a situation report on Nigeria from 1950–2004, gives a comprehensive analysis of nature in contemporary visual art in Nigerian including a glimpse of the prevalent stone carvings, potteries, different forms of glass work and wood carvings. The bronze works at Igbo-Ukwu in Enugu State stand tall as some of the magnificent ancient works of Nigerian art. Famous places like Benin and Awka are regarded as hubs of woodcarving. Wood carvers flourished in these areas, making figures for temples. Some of the figures include representations of the spiritual image of nature earth, sea, sky, water, fire and thunder. Pottery received a great boost with the tireless effort of Dr. Ladi Kwali, who promoted her works in European countries, which widely enhanced the art of pottery making in Nigeria. Aronson, (2012) observes that another prominent craft of Nigeria is cloth weaving, which represents varied aspects of Nigerian life style.

Some Contemporary Nigeria Artists Inspired by Nature

Nigeria has a long history of visual arts stemming from its many ethnic groups, each with its own traditions. In the years leading up to and after independence, Nigerian artists rebelled against British colonization by incorporating African naturalistic elements into their work.

Oloidi (2011), affirms the reactions of Onabolu to the notion that the African cannot produce or appreciate art like the white people, which made him an advocate of naturalism. This, coupled with the exposure of Nigerians to European painting styles, influenced the naturalism observed in early works of modern Nigerian art. He also observes how Akinola Lasekan had distinguished himself by 1940 as a self-taught nature painter. Close study of the earlier contemporary Nigerian artists show a great preference for naturalistic depiction of nature. This seems to have been the case from pre-independence till date

Kelly and Stanley (1993), observe that Eke Okaybulu (1916-1958) was a master draughtsman whose works displayed a very high level of skill at naturalism. The lines, achieved with the pen drawing, are well calculated and ordered with a lot of patience and discipline. The perspective and depiction of nature, conveying the feeling of wide open space, is remarkable.

Ulli Beier, an ethnographer and a key player in the history of the development of art in pre and post-independent Nigeria gives a little picture of art in pre-independent Nigeria. Beier (1960) reveals that Ben Enwonwu's paintings were naturalistic, smoothly executed in rich colours and love for nature. "Jungle Landscape" is filled with fresh vegetation, and trees that suggest some imagination especially in the foreground. "Cotton Trees" is more akin at showing us the mightiness of the trees by allowing us to compare the trees with humans.

Classification of Contemporary Art Schools in Nigeria

Contemporary Nigerian artists are classified along the school from which they graduated. There are cases of few artists having distinct styles or deviating from the usual school styles. Studies show that a large number of contemporary artists in practice are the 1980s to 1990s graduates of various formal art schools in Nigeria. The term "school" is also used to describe the philosophy, styles, themes and forms that are peculiarly distinguishing of these schools. The schools that have

distinguished themselves with some nature-inspired characteristics include Zaria School. The works are characterized by elongation of forms, elegant northern architecture, human figures and northern grassland landscapes. Yaba School employs realistic art forms that are done in narrative, and descriptive style mostly in accurate photographic realism. Nsukka School explores the calligraphic nature of Uli body painting art form as espoused by Uche Okeke. It intensifies the search for Igbo–identity, using the Uli linear forms to depict radical socio-political and cultural subject matters (Adenaike, 1982). Ife School is noted with cultural inspiration drawn from the Ife location. It explores the diversity of creativity in the use of local materials, symbols and images, which developed into the exploration of Yoruba traditional symbols, motifs, structure and concepts termed "Ona". Yusuf Grillo, a very influential figure at Yaba, took over headship of the department in 1961 (after further studies in Zaria) and remained there until his retirement in 1987. He taught his students to draw and paint in strict naturalistic manner (in line with the Western academy-style curriculum in place at Yaba), allowing them some measure of freedom only during the last year of their training. "Move from the known to the unknown" became the slogan that entrenched objective or nature drawings, paintings and sculptures at Yaba. Auchi Art School is noted for its expressionism and the use of vibrant colours.

The Informal Schools and their Artists
These are art locations where artists are informally trained without following the rigid rules of the formal art syllabus. The training is acquired through apprenticeship system or workshop experience. Within the informal school, some of the artists do not obey the rules of accurate proportion, and perspective. Mbari Mbayo–Oshogbo and Ori-Olokun-Ife schools explored the workshop system. Their contribution to contemporary art in Nigeria is their deviation from the known Western style realistic form. Their art forms are original, spontaneous and naively created with utter disregard for depth, space or any expected relationship of motif. Their themes are most times derived from folktales, myths and religious stories. Adepegba (1995) observes that, "they hardly follow the cannon of verisimilitude which is common with Western Art".

Demas Nwoko (born 1935) is a Nigerian artist, protean designer and architect. As an artist, he strives to incorporate nature into his architecture and stage design to enunciate the naturalistic African subject matters in most of his works. He sees design as an ingenuous activity that carries with it a focus on social responsibility for positive influences in the environment and culture of the society. A lot of his early sculptures and paintings can be described as works that project naturalistic knowledge. His terracotta's are designs that extend and express the art forms of ancient Nok. Demas, while in the ancient city of Ibadan, was short on cash to build or buy a house and studio for his work so he decided to build his studio and house from traditional methods to complement his cash shortage. He used clay and laterite found around the site chosen and built a brick house and studio. His inventiveness in using modern and natural techniques for selected and protean African art works led to his fame.

Nnenna Okore's, art is inspired by the use of found objects, and by close attention to natural textures and forms. Using basic materials such as clay, newspaper, wax and rope, her tactile and highly evocative sculptures take on dramatic and unanticipated forms. Her work celebrates the transformation of discarded materials into cultural objects and spaces and brings a critical focus to bear on the consumption and recycling cultures in parts of Nigeria. She applies various labor-intensive and naturalistic techniques, like weaving, twisting, sewing, dyeing, waxing and rolling, learned by her watching villagers performing everyday tasks. These processes accentuate colours, textures and other visceral qualities of her sculptures. Currently she is working with shapes that explore and are inspired by intimate spaces, shelters, architectural and natural environments.

Some famous Western artists and artworks inspired by nature

The British Museum has an extensive collection of artworks covering a 1500-year time period, representing over 60 countries and cultures, devoted to nature. In addition to their permanent collection, they have special exhibitions as well as classes and events for adults and children. In these hyperrealism and digital times, it is easy to forget, and even resist susceptibility to natural forces. Art can help us become more conscious of our true relationship with nature. It is undoubtedly important to feel a connection to the natural world vital to our survival.

Van Gogh: "Irises," oil on canvas, 1889, Van Gogh wasn't famous during his lifetime, but he was way ahead of his time. He made simple things like flowers have a life of their own on his canvases, with irises in particular being a striking painting of life and air. One can feel the flowers breathing in this work.

Paul Cézanne, the Large Bathers (1898-1906): the artwork is described and analysed as a fine example of Cézanne's exploration of the theme of the modern, heroic nude within a natural setting. The series of nudes are arranged into a variety of positions, like objects in a still life, under the pointed arch formed by the intersection of trees and the sky. Cezanne was attempting a departure from the Impressionist motifs of light and natural effect and instead composed this scene as a series of carefully constructed figures, as if creating sculpture with his paintbrush. He was more concerned with the way the forms occupied space than with recording his visual observations.

Claude Monet: "Water Lilies," 1919: one of the most famous nature painting series is Monet's water lilies, which is a gentle play of light, water, and shadow. These were a series of nearly 250 oil paintings that depict the Impressionist artist's flower garden in Giverny, France. They were the main focus of his work during the last 30 years of his life. What is most inspiring about them is how they show nature as fleeting, always changing and transforming. Colours and light move in ways that can never fully be captured. Monet's work, "Impression Sunrise" (1873) shows a loose handling of paint. His focus on light and atmosphere within the landscape scene is a key characteristic of Impressionism, which is widely considered the first fully modern movement. Monet's use of abstraction evokes what the artist sensed or experienced while painting the scene, which was a highly unusual approach for a painter to adopt at the time. The title of the work, Impression Sunrise, not only provided critics with the name that the movement would later receive, but also conveys the transitory, fleeting and subjective nature of the painting.

Georgia O'Keeffe: Red Hills and White Flower II: More familiar are Georgia O'Keeffe's paintings inspired by her time in New Mexico, surrounded by a harsh but beautiful desert landscape. O'Keeffe was so tired of city living that she permanently moved to New Mexico in 1949, where she could see nature-inspired scenes in her front yard every day.

Findings and Recommendations

Painters like, Aina Onabolu, Akinola Lasekan, Adeyemi Adenuga, E. Okaybulu, D. Ebanda and Ben Enwonwu were considered as precursors of nature-inspired painters in modern Nigerian art. It is also a fact that nature in art has started for decades and has reached a standard before Nigeria's independence. It is quite clear from studies that the work of arts inspired by nature existed since pre-independent era through the 1970's onward till the contemporary times in Nigeria. Nature-inspired art has grown in number of practitioners, styles, themes and commercial viability.

The study shows the human capacity to respond visually and creatively to the social and geographical environment, which comprises of nature, the elements, tangible structures and human activities. A lot of the nature-inspired artists have not been systematically studied and documented for their contributions and influences in our contemporary art scene in Nigeria. The study shows Artists are largely aware of the legacy of nature, hence they are continuously reinventing and exploring it to produce works that are aesthetically pleasing but also address current environmental issues.

In conclusion, nature is the greatest inspiration through which beauty should be seen. It draws attention to most pressing matters in human and environmental affairs. With art as a lens, we learn to change the world. Increasingly contemporary artists have devoted and are devoting their life and art to the natural built environment because it presents diverse themes and contexts for artistic expression, and has been the concern of artists throughout the ages, especially painters. Nature in Art has much to contribute to the familiar and experiential knowledge in art and human development.

References

Adenaike, A. O. (1982). *The influence of Uli Art on contemporary Nsukka School of painting*. Nigeria Magazine, Lagos. Pp. 38-52.

Adepegba, C. O. (1995). *Modern Nigerian art: A classification based on forms;* Kurio Africana; journal of art and criticism. Ile-Ife. Pp. 111-137.

Ajiboye, O.J. (2005). *Nature in Nigerian Art: A Study of Three Nigerian Contemporary Painters. Nigerian Journal of the Humanities*, Faculty of Arts, University of Benin, Benin City, Retrieved from https://www.questia.com>library>journal

Aronson, L. (2017). Weaving in Southern Nigeria. Art & Life in Africa. The University of Iowa. Retrieved from https://africa.uiowa.edu

Beier, U. (1960). Art in Nigeria, Published in collaboration with the Information Division, Ministry of Home Affairs, Ibadan and Cambridge University Press.

Burchfield, C. (2010). The Landscape in Art: Nature in the Crosshair of an Ade-Old Debate. Retrieved from: www.artsmagazine.com.

Egonwa, O. D. (2007). *Writing About Art and Making Art in Nigeria: Many Legs How Much Movement.* Abraka: 14th Inaugural Lecture of Delta State University, Abraka.

Egonwa, O. D. (2001).*The Evolution of the Concept of Natural Synthesis in* USO, National Gallery of Art Journal, Lagos: Vol. 3.

Elaine A. King (2010); *The Landscape in Art: Nature in the Crosshairs of an Age-Old Debate*. Artes Magazine. November 16, 2010. Carnegie Mellon University a paper delivered on 22 October at the Mid America College Art. Retrieved from www.artesmagazine.com

Filani, K. (2005). *Patterns of Culture in Contemporary Yoruba Art*. Lagos: Symphony Books. (P. 26-36).

Jenny, H. (2007). *Contemporary Art in Context "Truisms*," Times Square, New York.

Kelly, B. M. & Stanley J. L. (1993). *Nigerian Artists:* A who's who and Bibliography, Great Britain: Smithsonian Institution Libraries. P.22

Leica, B. (2015). 10 famous artworks inspired by nature. Tentree. Retrieved from: https://www.tentree.com.

McArdle, T. (2019). Nature in Art. Art is fun.com, Retrieved from https://www.art-is-fun.com

Maja, C. & Reuben F. (2016); *Nature as Mirror Unframed Landscapes*: Humakyl 'Nature: The Natural World. Indiana University. Retrieved from greenmuseum.org> generic content

Nature.com (May, 2013) *'The Earliest Known Cave Paintings Fuel Arguments about* Okwuos

Oloidi, O. (2011). *Art and Nationalism in Colonial Nigeria in Seven Stories about   Modern   Art   in   Africa*. Retrieved from www.africaresource.com.

Suzi, G. (1998). *The Re-Enchantment of Art, Thames and Hudson*: London and New York. p.125

Todd, W. (2013), Art and Nature. Wildlife Art Journal. P. 1

Unseen Art Scene (2009); The Invisible Made Visible: Contemporary Nigerian Art |1950 - Present. Retrieved from: africanartists.blogspot.com.

Wikipedia (2019). Cave painting of a dun horse (equine) at Lascaux. https://en.m.wikipedia.org/wiki/Lascaux

Zamora, M. and Raisa, L. (2017). Lens of Adventure. Retrieved from: https://monzamora.com

Appendix of Some Nature Inspired Paintings

Appendix 1: Ben Osaghae, The Last Mushin Bus, 2004, oil on Canvass, 210x140cm https://artfield.com.ng/the-making-and-unmaking-of-group-styles-in-nigerias-art-departments-at-yaba-and-auchi/

Appendix 2: Claude Monet; Sunrise, 18.9 in × 24.8 in, 18.9 in × 24.8 in, Oil on canvas, Musée Marmottan/Monet, Paris. Wikipedia. Retrieved from https://en.wikipedia.org› wiki

Appendix 3: Jimoh Braimoh. Fishes Ocean in the Ocean, 1999, Bead and Acrylic on Board, 26.50x32.50 inches. Retrieved from https://www.icollector.com › Jimoh

Appendix 4: Mike Omoighe, Oge-Survival Romance, 1998, Oil on Canvas, dimensions unknown, https://artfield.com.ng/the-making-and-unmaking-of-group-styles-in-nigerias-art-departments-at-yaba-and-auchi

Appendix 5: Claude Monet, Water Lilies, Oil on Canvas, 1919: Metropolitan Museum of Art, New York City. www.wikipedia.com, Retrieved from https://en.wikipedia.org › wiki.

Appendix 6: Vincent van Gogh, Irises, Oil on canvas, 1889, J. Paul Getty Museum, Los Angeles, California. Retrieved from www.vincentvangogh.org/image/painting/Irieses.org

7.
SCULPTURE AND ADAPTATION; EFFECTIVE FORMS IN *ALLO*

ASOGWA Ifeanyichiukwu Fidelis

Sculpture Section,
Department of Fine Arts,
Faculty of Environmental Studies
University of Maiduguri, Nigeria.
ifeanyichiukwuasogwa@gmail.com

Introduction

With the growing religious intolerance, coupled with general change in the socio-economic order in the modern society, acts of misconception, hostility and neglect on sculpture and craft abound; and so are calls for the protection of noble civilizations (Heathcote, 1976; Whitehand, 2009). Generally however, the generation of intriguing physical forms for aesthetic enhancement of the environment has been the primary responsibility of sculptural art in human development; and this should not change under any disguise. In order to cope with this responsibility, different methods or techniques of generating forms, using different materials, have been developed in sculpture. Beautiful forms are, for instance, generated through modeling, casting, carving, construction, and installation of familiar and unfamiliar objects or materials. This way, sculpture bridges civilizations (Stokstad, 2008; Whitehand, 2009).

One technique of sculpture in which contrasting view-points are correlated in a form is adaptation. Adaptation can simply be described as a kind of installation in which forms of craft and found-objects are adapted or presented and regarded as sculptures (McEvilley, 1999; Buhari, 2015). In it, substantial qualities of the original object or craft remain noticeable and assimilated in an unusual disposition. Craft and objects that are usually associated with a singular functionality would start to be considered in ranges of possibility. According to Sullivan (2010), sculptors have thus, continued to adapt objects into sculpture, not only to generate new forms but also to blend conceptions. Believing that the merger of craft and art, like in the traditional African society, would save the status-quo, therefore, the artist attempted to adapt wooden slate, *allo* (a relatively flat wooden board on which Arabic-Quranic verses are written, in practice by traditional Muslims), into sculpture. World Bank Education Programme (2015), notes that, indigenous knowledge system enhances general development.

In the research, effective sculpture forms inherent in *allo* were explored for increased appreciation of the subject. It was expected that its outcome would help in bridging the gap or diffusing controversy in the perception of traditional craft and modern sculpture, especially in regions where great value is attached to *allo* and sculpture is misconstrued.

Work Procedure

Practice-based research method, involving observation, sketching, and studio-manipulations, was the type of research adopted in this work. According to Candy (2006), practice-based research is most suitable for a research in which inference is drawn from created physical form, as is the case in this work. In the preliminary work, before the production of the sculptures in the studio, research-subject, *allo*, was examined via observation of forms. The examination was done first at the natural school setting (*Makarantan Allo*) where the characteristic qualities, especially the placement styles of the board, were studied in relation to forms, and secondly in isolation where a piece or form was left to physical distressing and weathering effects.

A*llo* was then burnt, cut, soaked in water, and chipped. All these actions produced diverse effect on the physical form of the board. The result of this exercise was sketched out and incorporated in the planning and execution of the main practical works. The techniques of work adopted in the studio were carving, burning and modeling.

All woodwork in this research was realized through carving and burning processes. Cuts and lines were made on wood to form a design and when a desired design was reached, the surface was burnt in fire especially the incised and lower parts. After burning, the plane or top areas were sand-papered clean, leaving the soot or effect of the fire at the low areas. Before carving started, however, elements and forms observed from *allo* were composed onto other pieces of wood. Here, sketches were first made on paper and pieces of wood that could suit the design sought and the sketch was transferred onto the wood and carved out. In some cases, pieces of wood were critically observed and *allo* forms and characteristics found on them were defined. Tools used for the woodwork included power saw, grinder, drill, router, handsaw, hammer, knife, chisel, gouge, fire and water.

Some other works in this research were realized through modeling. Works were modeled through three methods of direct material modeling, indirect-cast material modeling and direct-cast material modeling. In direct material method, observed forms of *allo* were modeled with the final medium (concrete mixed at a ratio of three cement to one sharp sand) direct onto an armature to achieve the desire design. Similarly, the desired design was modeled direct with clay and the leather-hard green was scooped, bone-dried and fired in a kiln into terra cotta. In indirect cast, the desired design was modeled with clay and cast into another material (concrete mixed at same ratio as direct method), discarding the clay model. Waste mould technique of casting was adopted in all such works. For the direct cast method, the design was basically modeled with clay and stone chips bound with cement and water at a ratio of four to one to half respectively. It was applied direct on the clay to reach the complete desired size and details. The clay core was removed after three days.

The immediate environment provided sources of inspiration for the choice of the subjects or themes in the execution of the works. The dressing style and the general out-look of the Hausa, which can easily be related to the forms of *allo*, influenced the figures expressed in the works. Social issues like prayer, charity, unity, and search for knowledge as expressed on *allo*, as well as contemporary politics and conflicts among the people, formed most of the subjects considered in this research. Arabic letters and numbers as written on the board were adapted to enhance aesthetic qualities of works produced. Most titles for the works are in Hausa, the language of the people. The actual execution and realization of works followed two approaches: direct and indirect explorations.

Direct Exploration: In the beginning of the studio work, observed characteristic features of *allo* were adapted directly in their natural forms into sculpture, using different materials as media via the techniques given above. Most of the works in this category are relief and in wood.

Indirect Exploration: In this second category, forms, possibilities and characteristic features of *allo* as observed in the first approach were related or associated to other natural objects. Attempts were made to adapt the forms in representing figures at different postures. Here, figures were reduced to basic shapes and represented in simple (few) *allo*-forms. Attention was also given to adaptation of *allo*-forms to create sculpture composition. Natural *allo*-forms were further transformed in stylized and rhythmic application to handle artistic subjects and themes in a group composition. In some cases, *allo*-forms were combined with forms and structures of other crafts in

a single composition. Sometimes, a rhythm was achieved by repeated placement of a particular form, depending on the nature of the problem the work was geared to solve.

Finishing: Woodwork was finished by smoothing its surface with sand-paper and spraying it with varnish. Before spraying however, the work was deepened into a solution of insecticide to prevent insect attack. Work on fresh wood was allowed a period of about eight months to season before the finishing. It seems there is no finishing really in woodwork; new ideas kept coming and most of the finished works were retouched, adjusted and finished again and again; some were finished up to four times.

For works in concrete, finishing was done by polishing the surface with emotion paint; some in white and some in mixed colours. Polishing with mixed colours was done in a wash manner with kerosene in order not to completely hide the natural character of the medium. In both wood and concrete works, polishing was not made to shine; colours were rather diffused to be recessive and friendly to the environment.

Results of Preliminary Studies

The results of the preliminary works which gave rise to the development of the main sculpture pieces in this research are documented in forms of sketch. After careful observation and physical tests of *allo*, (figure 1), the following discoveries were made: *allo* is made of a plane board with three projections (one at the top and two at the lower end); there is a protrusion at the centre which makes the plane body roundish; *allo* can warp, crack, decay or burn if "miss-handled"; sculpture processes that can take place directly on *allo* are carving, installation and construction; and different placement styles of *allo* create different impressions to the artistic sensation.

Bouwmann (2006) gives a detailed description of allo:

> A wooden piece on which both sides are written on in a handwriting. Other texts that have been washed away are also still visible. The front is nicely cut and polished and shows a slight rounding. The back is likewise polished but the grains of the wood are clearly visible. The text shows the beginning verse I till 3 from the first 'sura' of the Quran.

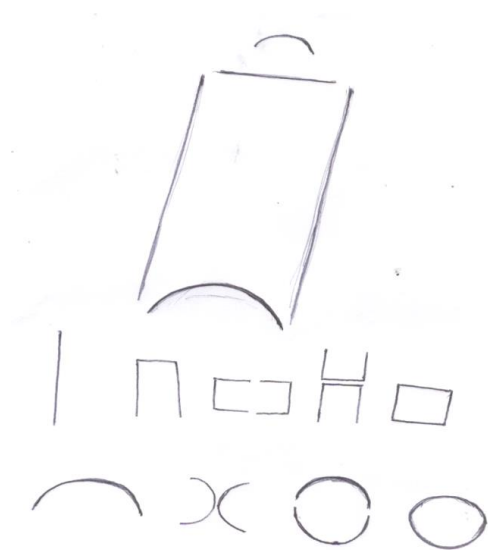**Figure 1: A Cross Section of Weathered Allo Forms, Wood, 2002, Researcher's Collection.**
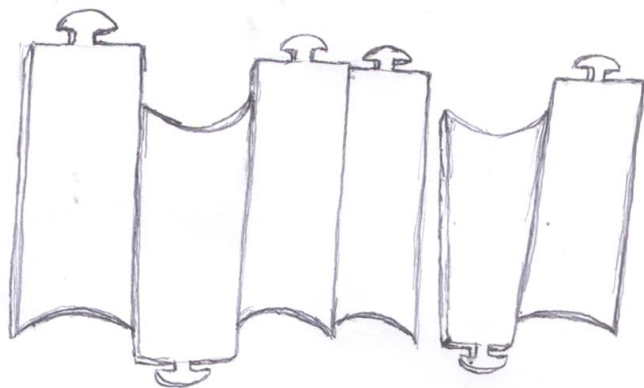
Figure 2: Forms and Lines in Allo, Ink on Paper, 2002.

Figure 3: Placement Pattern of Allo, Ink on Paper, 2002.
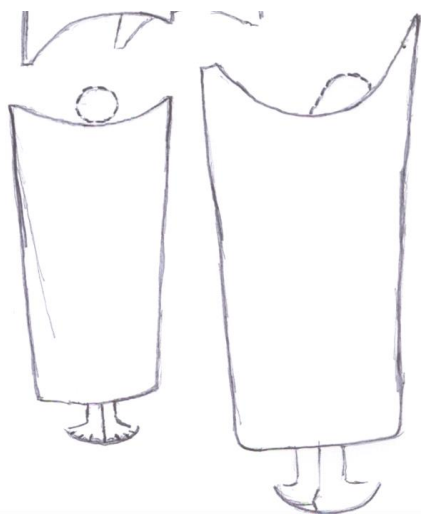

Figure 4: Associating *Allo* with Figure, Ink on Paper, 2002.

The physical structure of *allo* was also analyzed (figure 2) and it was discovered that the plane body of *allo* is made up of three structural lines and one curved line. Two of the structural lines run vertically and meet one horizontal line at about angle 90°, forming two square shoulders at the upper part. The curved line is almost a semi-circle with both ends blending into the vertical lines, creating two pointed ends used as the stand at the lower part. In some *allo*, the handle is a piece in a crescent form, carved separately and fixed on the body support at the position of head and neck. In other cases, the handle is a small square attached to the center of the horizontal line at the position of the head in a figure. Both concave and convex lines as well as plane-geometric lines are obtainable in *allo*. Manipulation of these lines creates a variety of forms like square, rectangle, triangle, circle, and semi-circle. Most times, the physical structure of *allo* creates an impression of perspective as the width of the board appears wider at the lower end, and gradually reduces to the "shoulder".

It was discovered that at each position, *allo* appears like a different natural object and can symbolically be used to represent such an object in sculpture; with or without supplement. Positioned to stand up erect, *allo* looks like a man walking and wearing a free gown (agbada), with a hat on his head. When different sizes are placed to over-lap in this position, the collection of *allo* would look like an academic procession. When placed side by side (figure 3), it looks like a prayer session of some clerics. When *allo* is turned up-side-down (figure 4), with a little manipulation, it looks like a person standing up erect, wearing free-gown, with his two hands raised up, and the handle forming the feet. Any small supplement at the center of the upper curve, which appears like raised hands, would represent the head. When an *allo* is placed horizontally, it looks like a bird flying. The curved handle, when placed, with the two end-points pointing up, looks like a crescent. If two of it are placed together, with two ends of each being at the tip of the other, it appears like a full moon.

This association readily provided symbolic forms with which natural objects were represented in sculptures designed in this research. Attempts were also made at this stage to adapt these observed characteristic features of *allo* in their natural forms into sculpture. This stage indeed laid the foundation on which further works were developed.

Results of Direct Exploration
For the purpose of modesty, only three works produced at each stage of the exploration techniques are presented in this paper. Although most of the works in this category were wood, a piece of modeled relief (figure 5), is included to capture its full scope.

Figure 5: *Majelisa*, **Concrete, 40cm X 46cm, 2002.**

Figure 5 is titled *Majelisa*, and it is a direct-cement modeling used to adapt the overlapping placement and natural weathering processes of *allo* (tilting, cutting, cracking, and decaying) on a non-wooden medium. The work suggests three figures in alignment and the individual tendency to tilt from one group and align to another, typical of our political assemblies, the *Majelisa*. The work, measuring 40 x 46cm, is proposed to decorate the wall of a state or national assembly chamber.

Figure 6: *Ilimi*, **Wood, 91cm X 58cm, 2002.**

In figure 6, forms of *allo* were carved and burnt on wood to suggest three figures gazing at heavenly bodies. The heavenly bodies like the star, moon, and sun are also suggested with *allo*-forms. The simple placement style of *allo* pieces represents the figures in a kind of academic procession. The

general disposition here highlights the importance of in-depth study (*Ilimi*) in the overall well-being of mankind.

Figure 7: Ranka Shi Dade, Wood, 127cm X 61cm, 2002.

Figure 7 is a nine-piece work made to consider the effect of *allo*-forms with other crafts in a single design. The work shows planes, curved and structural lines of *allo* mixed with pieces of calabash. It shows *allo*-forms turned with the curved stands upward and the handles downward, symbolizing a session of a musical group. A piece of calabash (tilted like *allo*), placed at the upper end of the *allo*-form suggests the head. The bigger piece of calabash around the center part of the work suggests a musical instrument. The curved and structural lines looking like the head and neck of an *allo*-handle, suggests a hand on the musical instrument. The forms representing the *allo*-handle at the lower part of the work, suggest the feet of a figure. The work symbolizes a collective good wish and respect of a leader (*Rankashi dade*) always demanded on the subjects by religion. The proposed location for the work is the palace of a traditional ruler.

Results of Indirect Exploration
Works in this category are mainly modeled concrete in the round. Three pieces are also presented and discussed here.

Figure 8: Meditation, Concrete, 38cm X 28cm X 36cm, 2006.

In figure 8, the concave and convex natures of allo-forms are adapted to suggest a kneeling figure realized in concrete. The form of allo-handle is placed at an unusual position, suggesting a head of a figure in meditation. The work measuring 38cm x 28cm x 36 cm, also explores the standing ends of allo, in which one is usually more pointed and a little longer than the other.

Figure 9: *Mai Gida*, Stone Chips, 56cm X 42cm X 20cm, 2004.

In figure 9, the curving, structural, and protruding features of *allo* are adapted in realizing a simple reclining figure in stone chips. The perspective tendency of *allo* is particularly explored in the work which measures 56cm x 42cm x 20cm.

Figure 10: The Story that Kevin Told, Concrete, 43cm X 41cm X 28cm, 2002.

The work shown in Figure 10 is a round cement-cast, influenced by the forms and placement styles of *allo*. It suggests multiple figures in variety of sizes, lumped together like pieces of *allo* after a study session. A circular form (generated by joining two curved *allo*-forms) perforates the chest area of each figure in a position little different from the other, creating yet a difficult task in casting. This problem was solved by adopting the semi-circle curve of *allo* in partitioning of the clay-model during mould-taking. The work symbolizes holocaust; currently perpetrated at all corners of our country. It is proposed to be sited at the front space of a war museum.

Conclusion

The aim of this research was to aesthetically adapt forms generated from allo in the creation of sculptures. In the process of work, *allo* was observed and its forms and associated elements were directly and indirectly adapted in production of 24 works out of which six were presented and discussed in this paper. Two of those presented are wood, and the other four are concrete and compressed stone chips. They are mainly abstract representations and symbolism of some social concepts used in highlighting chastity and condemning crime (which *allo* is committed to) in human relation. Characteristic features of *allo* are observable on each of the works.

Analyses of the works showed the following findings: At any position and at any slightest touch, *allo* suggests one object or another, aesthetically rich in sculpture composition; *Allo* possesses forms which could be used in realizing most postures and other features of figures in simple ways; *Allo* harmonizes easily with other crafts and its forms are adaptable to many media and processes of sculpture. Both relief and round sculptures in wood, concrete, stone and terra cotta produced in this research have forms of *allo.*

It was concluded that there is only a thin line, which separates *allo* as craft and *allo* as art. Natural weathering processes like cracking, tilting, burning, decaying and physical actions of carving, modeling, casting, and placement style transformed *allo* into sculptures. The works have stood both academic and professional exhibitions and attracted great appreciation and commendation. Thus, *allo* and sculpture are well related both in structure and essence; harmonizing conceptions of them is possible and resolving the controversies about them tenable.

Recommendations

Based on the outcome of this research, the following recommendations are made:

(a)   Artist-researchers should look more into the possibilities in *allo* and execute public sculptures that are influenced by its features as the exhibitions of the results of this research have mainly been indoors.

(b)   There are still many other traditional crafts that have not been related to art. Artists should be encouraged to adapt them, craft being a good complement to art.

(c)   Exploration of local crafts should be made compulsory in art institutions in order to blend civilizations and save noble cultural identities from being completely eroded.

References

Bouwmann's oriental book (2006). *Wooden slate with Quranic texts in Arabic*. (Online). Available: www.bouwmanbooks.com/viewitemdetails.php?return accessed 20 April 2006

Buhari, J. (2015). (The) Visual Arts as Knowledge Production; Inaugural Lecture. The University Organised Lectures Committee, Ahmadu Bello University, Zaria, Nigeria. Pp. 45-51

Candy, L. (2006). Practice-based Research; A Guide. Retrieved Online, July 20, 2012, From: http://www.creativityandcognition.com

Heathcote, D. (1976). *The Arts of the Hausa*. University Press, Chicago, USA. Pp. 10- 62.

McEvilley, T. (1999). Sculpture in the Age of Doubt. New York, USA; Allworth Press. Pp. 1–30

Stokstad, M. (2008). Art History; Third Edition. New Jersey, USA; Pearson Education Ltd. Pp. 17 – 1174

Sullivan, G. (2010). Art Practice as Research: Inquiry in Visual Arts (2nd Edit.). Los Angeles, USA; Sage Publications Inc. Pp. 62 – 79.

Whitehand, D. (2009). Evoking the Sacred: The Artist as Shaman. Exegesis for Award of the Degree of Doctor of Philosophy; Arts Academy, University of Ballarat, Australia. Pp. 40 – 104

World Bank Education Programme (2015). What is Indigenous Knowledge? Retrieved 17 April, 2015 from http://www.worldbank.org/afr/ik/basic.htm

8.

AESTHETIC RECYCLING OF PLASTIC BASED WASTE AS ADAPTABLE MEASURES TO CLIMATE CHANGE: A PROACTIVE REVIEW OF ADENLE'S PLASTIC ART WORKS

ARUEYINGHO, Geoffrey Ajemijoye
Department of Fine and Applied Arts
Federal College of Education
Abeokuta.

And

ADENLE John Oyewole
Department of Creative Arts
Faculty of Arts
University of Lagos
Nigeria
adenlejohn2000@gmail.com

Introduction
Nearly all human societies are experiencing climate change one way or the other. Since the climate is an inherent variable for natural reasons, human societies have always had to develop coping strategies in the face of its unwelcome variations or because of weather extremes. Confirming this, United Nations on Intergovernmental Panel on Climate Change (IPCC, 2001), proclaims that there is now little doubt that, human induced climate change is happening. All societies consequently need to learn to cope with the changes that are predicted. The predictions, such as warmer temperatures, drier soils, changes in weather conditions and rising sea levels are being experienced now in Nigeria and many other parts of the world.

Climate Change
According to Idowu, Ayoola, Opele and Ikenweiwe (2011), "Climate change is an adverse environmental phenomenon that is causing enormous concern all over the world. It refers to some anomalies in the climate system that is a result of human activities. It also refers to a long-term shift in the statistics of the weather'. IPCC supports the above assertion, that the most general definition of climate change is a change in the statistical properties of the climate system when considered over long periods regardless of cause. IPCC further describes it as changes in patterns of temperature, precipitation, humidity, wind and seasons, which often affect more than just a change in the weather but seasonal changes over a long period. Such climate patterns play a fundamental role in shaping natural ecosystems, human economics and the cultures that depend on them. Idowu, Ayoola, Opele and Ikenweiwe further narrow it down specifically to changes in climate caused by human activity as opposed to changes in climate that may have resulted as part of earth's natural processes. Such activities that contribute to an increase in greenhouse gas levels, environmental and health hazards therefore include- burning of fossil fuels: oil, gasoline, gas, and coal; Industrial processes and mining, landfills, open dumps, septic and sewer systems; agricultural practices: fertilizer application and management and land use practices, such as deforestation.

Discussing the effects, Henderson, Reinery, Dekhtyar and Midgal (2018) infer that, "Global temperatures are expected to continue to rise as human activities such as bush burning, gas flaring, deforestation, continuous combustion in incinerators and open dumps, continue to add carbon dioxide, methane, nitrous oxide and other dangerous gases to the atmosphere causing ozone layer

depletion, leading to global warming". While the scientists, researchers and agencies proffer solutions and adaptability to unavoidable changes, society must wake up to important externalities in creatively managing its waste stream. This is because the effects of climatic change can be directed towards positive dimensions which can reverse the tide of toxic, non-biodegradable pollution, so that it will not overtake the planet.

Chris and Roger (2005) argue that, nine out of every ten dustbins are emptied into a landfill or dumpsite. In fact, nothing can be thrown away; we only succeed in moving it from one place to another. This paper therefore seeks to proffer aesthetically permanent solutions to streams of plastic wastes to support existing efforts of government in the campaign for reusing, reducing, recycling and redirecting.

Plastic Waste
"Plastics" is the term commonly used to describe a wide range of synthetic or semi-synthetic materials that are used in a huge and growing range of applications. A plastic material is any of a wide range of synthetic or semi-synthetic organic solid used in the manufacture of industrial products. Plastics are typically polymers of high molecular mass, and may contain other substances to improve performance and /or reduce production costs. Monomers of plastics are either natural or synthetic organic compounds (Woodford 2019)

Their malleability or plasticity during manufacture allows them to be cast, pressed, or extruded into a variety of shapes such as films, fibers, plates, tubes, bottles, boxes and much more.

There are two types of plastics noted by Arueyingho (2011) namely, Thermoplastics and Thermosetting polymers. According to him,

> Thermoplastics are the plastics that do not undergo chemical change in their composition when heated and can be molded repeatedly; common examples of thermoplastics include acrylic, polyester, polypropylene, polystyrene, nylon and Teflon. While Thermosets can only melt and take shape once; after they have solidified, they stay solid, examples are epoxy resin, polymer resin, urea formaldehyde, silicone, polyurethane and phenolic.

Plastics offer advantages such as lightness, resilience, resistance to corrosion, color fastness, transparency, ease of processing, etc. These possibly might be the reason people tend to use them uncontrollably. Among this waste stream, plastic wastes, that are non-biodegradable, constitute 7% to 10%, this makes it a great concern to government, agencies, non- governmental organizations and individuals to recycle re-use and reduce the menace. Creatively adapting non-biodegradable plastics, which Okebukola (2008) referred to as a type of pollution caused by substances, on which biotic and abiotic agencies of decomposition are ineffective, will aesthetically enhance our environment in reducing the rate at which poisonous gases negatively affect nature and humans. Both degradable and non-degradable are part of the collection of plastics used in the creation of his works in this study.

Aesthetic Creativity from Environmental Waste:
Adenle John Oyewole has joined scores of artists to stem the vast rate of environmental pollution in a different style. His desire is propelled by the readily available stream of plastics at every meter of the environment. His works turn plastic waste into aesthetic and functional creations instead of allowing them to degrade the environment, create economic burden, consume growing amounts of energy and other natural resources and subsequently create health hazard to marine and human

life. Adenle's medium is mainly plastic wastes i.e. cellophane, plastic bags and bottles, kegs, bowls, buckets (otherwise known as domestic plastics), automobile plastics and industrial wastes. These waste materials were sourced from the community's automobile shops and plastic industries to convert their uses to art. With this effort, Adenle has succeeded in cutting short the usual chain of recycling of materials, which eventually end up in the dustbin.

The negative effect of this on the environment is huge, considering the plastic's average life span of 20 to 1,000 years before decomposition. In the selection of this medium to display visual dialogue, the waste stream of plastics do not go through the normal industrial recycling process as domestic items, but more importantly, they are recycled to translate them into aesthetically permanent art works that go beyond millions of years without any negative effect on human and marine life, environment and atmosphere.

Structurally, Adenle's plastics are adopted from a mixture of geometric and organic shapes juxtaposed and superimposed or surmounted to form a visually pleasing and aesthetically acceptable whole. He was able to do these through the processes of melting, gluing and assemblage. Some of these works have the features of relief: low, medium and high in nature, which are achieved through drilling, engraving, grating, burning and bolting. The combination of parts of different plastics find parallel with some functional African sculptures. Sometimes, these combinations produce shadows, which add solidity, depth and embellishment to each of the compositions. Formalistically Adenle's creative exploits on recycled plastic wastes have many technicalities that could inhibit the aesthetic enjoyment of an "uninformed" onlooker. Some works created from the adopted plastics have recognizable shapes that the viewer could give or gain personal interpretation from. Although his adaptations could make comments on events in his environment and global issues – social, religious, economic, political, insecurity, terrorism etc., most times, the viewer is allowed to have his or her personal and aesthetic enjoyment, depending on how visually informed he or she is.

Plate I, Title: "Sacrifice", Size: 93cmx 78cmx 12 cm, Artist: John Adenle, Date: 2011, medium: Industrial and Automobile plastic wastes, Source: Adaptation 2011 exhibition catalogue

"Sacrifice" is a depiction of what majority of people in the country go through or have to endure, in order for peace to reign. Symbolically, one finds that while the revenue of the country is being shared by the leadership class, the masses are encouraged to follow due process for whatever is their legitimate right. These under privileged masses send their children to schools in remote villages that are still many years behind science and technological developments (their sacrifice), while the rich send theirs to private institutions with up-to-date advancement in science and technology. Sacrifices of the masses are felt in their socio-political and cultural lives, while the leadership does not appreciate the commoner's efforts.

Plate II, Title: "National Cake", Size: 61cmx 61 cm x 7cm, Artist: John Adenle, Date: 2011, medium: industrial plastic wastes, bones, Source: Adaptation 2011 exhibition catalogue

This is a mixed media of industrial waste, plastic, and bones, in a radial arrangement. Conspicuously and intentionally located are the bones at the four edges of the artwork. At the center is the common Treasury, "Soup Pot". After all the scrambling, diversion and looting of money and properties by the privileged few in the society, the consequences are glaringly exposed-unemployment, under-funded projects, unpaid salaries and allowances. Offshoots of the afore-mentioned are kidnapping, armed robbery, militancy, prostitution and other vices. These are common in Nigeria today, generating unpleasant forces.

Plate III, Title: "Force in Flight", Artist: John Adenle, Date: 2011, Medium: Automobile plastic wastes, Source: Adaptation 2011 exhibition catalogue

"Force in Flight" is a combination of automobile plastic and metal. A cursory look gives one the impression of an object in flight probably coming home for a rescue. Today in Nigeria, especially in the past three years, the forces and counter forces in the country (Niger- Delta Militants and Boko Haram), are things of concern. Symbolically, Adenle seems to be saying that Nigeria needs a higher and greater force to neutralize and normalize these diverse and destructive forces in flight, so that we do not drive the vehicle of the nation in reverse gear.

Plate IV, Title: "Reverse Gear", Artist: John Adenle, Date: 2011, medium: Industrial and Automobile plastic wastes, Source: Adaptation 2011 exhibition catalogue

"Reversed Gear" is a conceptualized work created from melted plastic and acrylic binder. The work is created to interrogate the nation, Nigeria. If Nigeria gained independence several decades ago, has she made any appreciable progress? Are Nigerians convincingly ready for growth and development? Are our leaders ready for meaningful progress? The inverted map of Nigeria as depicted by this visual document succinctly appears to reveal the stone-heartedness and negative acceleration of our vehicle of progress. Nigeria needs to annul the effect of "Reverse Gear", so that, like other nations we would be able to see Day –light or Light of Day, progressively and not "Day-light devil".

Plate V, Title:-"Day-Light Devil", Artist: John Adenle, Date: 2011, medium: Automobile plastics, Source: Adaptation 2011 exhibition catalogue

"Day-light Devil" shown in Plate V is a composition of industrial plastics. Structurally, the artwork reveals a composition with three major outlets of attack- a tripodal arrangement. The beauty of the arrangement is reflected in the unification of its tentacles of attack. Today, in Nigeria the militants in Niger Delta and several of their Boko Haram brothers in the North do not wait for the fall of darkness before they unleash terror and destruction. Similarly, modern day armed robbers and kidnappers, including others that do devilish things, do such things during the day. They are Day-light-Devils. Nigeria needs divine intervention to arrest these dangerous trends.

Plate VI, Title:-"Force in Flight", Artist: John Adenle, Date: 2011, Medium: Automobile plastics, Source: Adaptation 2011 exhibition catalogue

"Force in Flight" is an assemblage of automobile plastic, used torch light and used bulbs. There was a time in this nation, Nigeria, when people studied and passed their examinations using streetlights. The lights were always there and regularly too. Streetlights in most towns in Nigeria, today, are cosmetic installations. Adenle reminds us through this work of the inaccessibility of the common man to light (NEPA or PHCN), while the privileged have assorted power-generating plants, which may be triggered on, as soon as that of government goes off. Foreign companies that would have assisted this nation industrially relocated to smaller but more accommodating countries with effective power generation for business. Nigeria is assumed the giant or light of Africa. It is a paradox.

Plate VII, Title:-"Who Killed Me?" Artist: John Adenle, Date: 2011, medium: Industrial waste plastic, Source: Adaptation 2011 exhibition catalogue

"Who Killed Me?" reminds the viewer of the Biblical story of Abel in the Holy Bible (Gen. 4 verse 10) whose blood cried to God from the ground on which it was spilt. The work is a purely plastic composition which is melted. This is hinged on African cosmology that believes that the world is peopled by living and spiritual beings. These spiritual beings are believed to be intermediaries between the living and the gods. When someone dies, he or she goes into the spiritual realm. When such death is accidental or untimely, like that of Dele Giwa, Murtala Mohammed, Alfred Rewane etc. the spirit of those killed is restless and could ask "Who killed me"? In Nigeria today some people see themselves as dead or killed. For example some years ago, microfinance banks were prevalent and customers were wooed and lured with enticing interests on capitals deposited. Some people lost up to twenty million naira of their life savings. They were 'killed'; some committed suicide while others could not and may not be able to recover from that loss or seeming "death".

Plate VIII, Title:-"Angels Visit?", Artist: John Adenle, Date: 2011, Medium: Industrial waste plastic, Source: Adaptation 2011 exhibition catalogue

This is an assemblage of different coloured plastics obtained from the factory. "Angel visit" is arranged on a long-shaped background showing a major figure as the central piece, in a supplication mood. Other objects surrounding the central figure are either assistants or objects of obeisance arising from the aftermath of sharing of the *national cake, forces in flight*, driving in *reverse gear, day light devil* and other vices in this nation. Adenle is convinced that Nigerians need "Angels" to visit, so that through them God's mercy and blessings would rain on us all.

Plate IX, Title:-"Breading 2010", Artist: John Adenle, Date: 2011, medium: Automobile plastic wastes, Source: Adaptation 2011 exhibition catalogue

This is an assemblage of automobile plastic resembling a monster. Adepegba (2011) opines that this hydra-headed figure is **policy summersault**, meaning that life is full of unending problems. Each bigger problem has smaller ones as walking sticks. For instance in Nigeria, committees upon committees are inaugurated, probe panels upon probe panels to investigate grafts and crisis are formulated but shoddily implemented.

Plate X, Title:-"Black and White?" Artist: John Adenle, Date: 2011, medium: Automobile plastic, Source: Adaptation 2011 exhibition catalogue

Plate X shows another art piece in bass relief. In this work, Adenle John reveals a forgotten truth. Black and White are neutral colours. No human being resembles any of these colours above. The real Black and White is what you have in Adenle's piece. Sometimes people believe or perceive that the races of the world are just two-the white and the black races. The white race seems to denote people that are more honest and truthful socially, politically and economically advanced. These are perceived as the Europeans, Asians, and Americans while the backs are predominantly Africans who are believed not to think of anything good.

Plate XI, Title:-"Tensed", Artist: John Adenle, Date: 2011, medium: Discarded pieces of wood and melted plastic, Source: Adaptation 2011 exhibition catalogue

This work is a fabricated plastic from industrial waste achieved through cutting, gluing and bolting. The arrangement of the artwork outlines the Map of Nigeria showing jumbled components of all States. Confusion – upside down, inside out, a near anarchy situation. It is like children's "jig-saw puzzle" but this time it has become a cabal's toy, because personal interests override collective interests. Hope is not lost, however, because our God is able to handle any adverse situation by dousing or relieving our tension.

Conclusion
All art works shown from plate I- XI are made of plastic waste materials gathered from three sources: domestic plastics, automobiles plastics and industrial plastic waste. It is the opinion of these authors that plastic and cellophane waste recycling in an aesthetic manner may be able to complement the international concerns for a better environment and our government's campaign against deforestation and Ozone layer depletion that lead to climate change. It will reduce environmental pollution caused by empty water bottles, sachet water packs, broken buckets, cups, bowls, kegs, automobile and industrial plastic littering the streets, dumpsites, landfills, bus-stops and blocking our drainages or washed into bigger bodies of water heading into the Ocean and causing havoc to aquatic life and supply of water.

Recommendation
Global temperatures are expected to continue to rise as human activities such as bush burning, gas flaring, deforestation, continuous combustion of non- biodegradable plastics and cellophane in open dumps and incinerators continue. It is therefore, wise for government to take appropriate legislative measures on the production of plastics regarding chemical composition, reducibility, reusability, recyclability biodegradability of plastic products.

Government should educate the society on the need to sort their waste accordingly; it should use waste trucks designated to remove wastes on the streets; create landfill for degradable wastes, dumping yards for all kinds of wastes to be recycled or reused like metal, plastic, cans, glass and paper. It should also provide enabling environment for artists and other people interested in creativity to explore the waste and turn them into aesthetic spectacles and forms. This will in turn provide economic gains for the nation. Government, NGOs and other agencies should fund art residencies, after which the products should be showcased. Through this approach, human activities that have tendencies of affecting climate change especially through plastic pollution will be minimal.

References
Adenle J. O. (2011) 'Adaptations' An exhibition of experimental body of works on Waste. Lagos, De Kings Communications

Adepegba K. (2011) Adenle's Adaptations: A Reflection on Nigeria's Socio-political Deflections. Adaptations: An Exhibition of Experimental Body of Works on Waste. Lagos, De Kings Communications, Pp. 19-20.

Arueyingho G. A. (2011) Adaption: Connecting research works for the past Ten years Adaptations: An Exhibition of Experimental Body of Works on Waste. Lagos, De Kings Communications, Pp. 11-16

Idowu A.A., Ayoola S.O., Opele A.I. and Ikenweiwe N.B (2011) Impact of Climate Change in Nigeria in Iranica Journal of Energy & Environment 2 (2).

Intergovernmental Panel on Climate Change (IPCC 2001b) Climate change 2001. Impacts, Adaptation and Vulnerability: Cambridge University Press.

Henderson, R., Reinery S., Dekhtyar P. and Midgal A. (2018) Climate Change in 2018: Implications for Business, Harvard Business School. https://www.hbs.edu/environment/Documents/climate-change-2018.pdf

Kelvin T.P. & Lewis A. O. (1995) Acid Rain: An Introduction to Global Environmental Issues. New York, Routledge 29 West 35th Street.

Okebukola P. and Akpan B. B. (2008) Non-degradable Pollutants Strategies for Environmental Education: Focus on Land and Water Pollution. STAN Environmental Education Series No12. Ibadan Science Teachers Association of Nigeria.

Woodford C. (2019)Plastics https://www.explainthatstuff.com/plastics.html

9.

AN EXAMINATION OF ANTHROPOMORPHIC TERRACOTTA SCULPTURES FROM THE NOK CULTURE.

AGADA, Ladi Onyi Andrea
Department of Fine Arts,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria
agadaladi@yahoo.com

And

BOYI, John Mallam
Department of Fine and Applied Arts
Kaduna State College of Education
Gidan Waya – Kafanchan
Kaduna State
boyijohn25@gmail.com

Introduction

Art is one of the oldest professions and it has been a part of expression by different people and ethnic groups since the evolution of humans. Different ethnic groups around the world have their own kind of art, which has been used to express their culture, tradition, and belief system. Many of these ethnic groups have experimented with different materials, ranging from stone, marble, wood, bronze and terracotta among others. The Nok culture is one among the ethnic groups in Nigeria that have experimented and adopted terracotta as medium of artistic expression.

Sculpting in clay is one of the most common traditional materials used in the past, which dates back to the Palaeolithic era and the Stone Age. Terracotta according to Richard (2015) and Alok (2017) was one of the very first technologies conceived by mankind, predating the use of bronze and iron. Rajesh (2018) affirms this by stating that, terracotta was widely used in ancient art, notably in Chinese, Greek, Mesopotamian, Egyptian, Italian, and Etruscan art. Rathus (2010) observes that, "the prehistoric people also created sculptures called the Venuses by the archaeologist who first found them. It is considered as one of the oldest and the most famous of the prehistoric female figures". A good example of such is the Venus of Willendorf, named after the site at which it was unearthed. This prehistoric and ethnic art is a source of inspiration as it revives the submerged memories, and awakens primordial records.

Nok culture is a culture, which provides evidence of an ancient civilisation in West Africa. The art works of the Nok people reflect what they do, what they think, how they live, what values they hold, what joy and sorrow they shared. Nok culture is named after the town, Nok, in the present day Kaduna State where the first finds or objects of art were excavated by archaeologists in 1929 and 1943. The discovery of Nok terracotta sculptures which is regarded as the oldest sculptural tradition in Nigeria brought global attention to the village as archaeologists, tourists and scholars paid visits to have a first-hand encounter with one of Nigeria's best kept artefacts. Other art centres of Nigeria include Benin, Ife, Owo, Igbo-Ukwu and Esie.

Nok culture according to Mannel and Breunig (2014) is the first complex civilisation in West Africa existing from 900BC to about 200AD. Their terracotta sculptures are some of the most iconic

ancient objects from Africa. They are one of the first societies to have contributed to the origin, development and spread of West African Iron Age. Abdallah (2017) and Hirst (2018) describe Nok culture as a culture, which provides evidence of the earliest ancient civilization in Nigeria. It has a narrative character that shows the everyday lives of the people. In view of this therefore, the paper discusses the historical background of the Nok and analyses the anthropomorphic terracotta sculptures with a view to providing information not previously encountered.

The Study Area
Nok is a village in Jaba Local Government Area in the southern part of Kaduna State, Nigeria. Nok village shares boundaries with Kwoi, Chori and Sambang communities. The people in the present-day Nok village speak the language called Ham otherwise known as Jaba in Hausa. Sani and Ibrahim (2015) state that, "the Ham is one of the major ethnic groups in Kaduna State Nigeria, and majority of them are Christians, estimated to be about 95% in number". The Ham ethnic group, also referred to as Jaba, are the inhabitants of the present day Jaba Local Government Area of Kaduna State in northern Nigeria. Hayab (2017) also notes that, the Ham is not only confined to Jaba Local Government Area alone, but also found in large numbers in Kachia Local Government Area. They are also sparsely found in Jema'a and Kagarko Local Government Areas all of which share boundaries with Jaba Local Government Area.

According to Jemkur (1995), Breunig, (2014) and James in Hayab (2017) Nok village and it's environ is surrounded by mountains and hills. It is from some of these hillsides that the deposits of the artefacts referred to as *Nok culture* were discovered, beginning from the early part of the 20th century. It is now over a century since the Ham people left the hills to settle on flat lands, but relics of life and existence are still visible all over the area. The Nok region is located in the Savannah belt. According to Neumann and Alena (2014), the region falls within the Guinea zone with an annual rainfall of 10,000 to 15,000mm. Due to the relatively high precipitation, the savannah here is known as a "Wet Savanna and forms a transition into the rainforest. Grasses in this region are perennial and can grow up to 4 in high."

The Nok people according to Samuel and Agada (2007) were highly skilled in terracotta production, iron smelting and stone implements. Their technological advanced position in Africa raised scholarly enthusiasm. Their striking craftsmanship and intricate use of miniature terracotta of human and animal's forms are things to marvel at. The Nok terracotta sculptures produced by this people bear an in-print of history through the manner in which they represent their subject, the ornamentation and the general presentations of an organized and civilized society. They excelled in terracotta sculpture exploration and this enabled them to employ a great variety of styles and ideas in their art, just like the Greek, thereby creating terracotta sculptures that were outstanding compared to other sculptures. More so, many of the well-known terracotta figures were made from local clay and traditionally baked. This process of production is responsible for the preservation of Nok artefacts for many years before they were been discovered.

Concepts of Terracotta, Sculpture and Anthropomorphic Trait
Terracotta: Terracotta according to Griffen (2018) and Amber (2018), is an Italian word which simply means "baked earth". It is mostly and commonly used to describe a type of sculpture, unglazed ceramic art or decorative architecture, made from a coarse, porous clay which is noted for its versatility, cheapness and durability. Terracotta is usually made from a family of coarse, porous type of clay. This is first shaped or sculpted, then fired to a high hard form. In the ancient world, it was left to harden in the sun and later, fired at about 1000^0C in special ovens, known as Kilns. Once it is fired, the clay assumes a brownish orange colour, ranging from earthly ochre to red.

Prathyaksha (2016) adds that, "terracotta refers to a high grade of weathered or aged clay, when mixed with sand or with pulverized fired clay, can be moulded and fired at high temperature to a hardness and compactness obtainable with brick". Terracotta clay varies in colours depending on the geographical location where it is found and also depending on the type. They range from red, brown to white. Prathyaksha further stresses that clay can be considered as one of the oldest building materials in the history of man after terracotta was and is being used for all conceivable purposes due to its abundance and universal supply. Terracotta objects are far simpler and cheaper to create, replicate and decorate, than stone or bronze objects; even moulds can be re-used.

Sculpture: Sculpture is an artistic form in which hard or plastic materials are worked into three-dimensional art objects. The designs for the sculptures may be embodied in free- standing objects, in reliefs or surfaces. According to William in Lamidi (2018), the early sculptures were created specifically for the purpose of ensuring fertility, good hunting, sanctuary of the soil and worshipping the gods. The artists were creating inherently aesthetically pleasing objects, with functionality in mind. Sculpture is versatile in nature and can be created with different materials such as clay, cement, wood, paper, plastic and metal etc. depending on the design and the purpose of its creation.

Anthropomorphic Traits: The word anthropomorphic means human shape; it is used to describe human characteristics to non-human beings. It is mostly used in reference to deities, which are usually given the form of humans. Anthropomorphic also means giving human traits or attributes to animals, objects, or other non–humans. It could be seen as relating to an idea of an animal, a god, or an object that has characteristics like that of a human being. Some of the Nok terracotta sculptures are anthropomorphic and therianthrophic in nature, which describes creatures that portray animals and partly shaped like humans.

Anthropomorphic Terracotta Sculptures of Nok
Many works of art in ancient times were represented in anthropomorphic form. One of such is the oldest known ivory called Lowenmennsch, in Germany, it is a human–shaped ivory figurine with the head of a lion or lioness, which is about 32,000 years old (Anthropomorphic, Wikipedia, 2019). Zimmermann (2014) also asserts that, Nok culture also produced well–known figurines of humans and animals, and such images and figures are of high aesthetic value, which frequently contained social and religious information about the society in which they originated. These anthropomorphic terracotta sculptures will also help to interpret the behaviour of the people of Nok in the past as either secular or religious. The author further gives reasons why images of humans and animals were created or incorporated into the Nok culture by stating that they were created to appease the ancestors or super natural powers for aid, healing practices, offerings in the hope of economic success, magic as a weapon against enemies, transitional rites between youth and adulthood or between life and death.

Breunig (2014) observes that, "most experts agree that the Nok people did not just create terracotta sculptures for art sake, to please or to enjoy, neither did pieces of art serve the artists fulfilment." It is believed that they had a different purpose for producing these objects which is most likely to fulfil a social or religious function which is evident on how these sculptures were produced. More so, some of the terracotta sculptures portrayed people and they were found or discovered at burial sites in some places.

Zimmersmann (2014) further notes that, in the Nok culture, the people are sometimes faced with many situations in the course of time or in life, and when such situations happen the people tended to feel if they could not achieve their desired results by their own personal effort, they would rely on super natural powers. It is as a result of this development that the Nok people produced terracotta sculptures with anthropomorphic forms in order to enhance their religious practise. Many of such terracotta sculptures depict or represent ancestors. That is why the producer or makers of these terracotta sculptures depicted beings with related or personified supernatural powers. Some of such figures are having partly human and partly animal features belonging to some other non–human sphere.

Breunig (2014) also confirms that, the human figures from the Nok people are usually represented in a stylised manner, whereas the animals were singled out and given special treatment in a very complex way. Example of such works is the Shamanic Birdman with elaborate hairstyle, a bird with a human face with a cap. The author further affirms that, the Nok people practiced totems, where a person or a group has a special mystical relationship to a totem. In the Nok culture the ancestors or totem are venerated in religious rites, which are often organised by the representative clan or settlement. The ritual itself however, tends to be performed by elders of the group. Both human ancestors and the totemic animals are subject of artistic representation.

Interestingly, therianthropes are figments of the imagination. They are said to have descended from a spiritual realm, where partly human and partly animal forms can transform into animals or where the boundaries between humans and animals is abolished. The Nok terracotta sculptures are depicted either in sitting, kneeling or standing positions, depicting multidimensions proportions.

Gillion, (2009) and Breunig, (2014) observe that, the Nok people made terracotta representations of animals in their art and most of the animals are ticks, snakes, and lizards all in anthropomorphic form and in a naturalistic style. Ticks are however, unusual subjects to the Nok artists, while snakes feature quite often even in the prehistoric era. In Ife and Benin, snakes are also depicted in their art. The depiction of snakes was very important to the people of Nok Culture, and when we go into ethnographic literature, one will see that the mixture of man and animals also occurred widely in African rock art and in the art of the European Ice Age. This practise shows an indication of their worldview and ritual practice, which is ascribed to as "shamanism". The term Shamanism refers to one entering the supernatural realm in a state of trance. In the past, the people of the then Nok Culture tended to obtain, for instance, the power to heal members of the community that have fallen ill through this practise.

1; A Shamanic Birdman, Terracotta, 30cm, 900BC - 200AD, Jema'a, Nok Area. Source: pinterest.com/nokworichard/No

Plate 1 is a terracotta sculpture of a shamanic birdman from Nok culture; it is about 30cm in height. The figure depicts a bird with human and animal characteristics. The terracotta sculpture shows a bird with a human feature, having eyes, nose and instead of a mouth, what one can see is the beak of a bird. The eyebrows and the eyelids are connected, while the middle of the eyes has a dark hole, same with the nose. The functions of the holes were to allow air pass through for easy firing. The figure has a remarkable hairstyle hanging on both sides of the head, thereby covering the ears from being seen. It is also depicted with a cap on its head. The figure is shown with a thick short neck and with a layer of decorative beads round its neck and both legs. The legs look very short and thick; they have four well-detailed hooves like those of an animal. The two legs of the figure appear to be resting on an upturned vessel; part of the vessel is broken as can be seen. An unknown object is decorated with a groove which is placed on the left shoulder. In traditional African art, the head is usually bigger than the entire body. This has been the practice from time immemorial. This figure is however, entirely different from other terracotta sculptures of the Nok culture, where the body is bigger than the head.

Plate II: A Human Head with an Elaborate Hair Style and a Beak, Terracotta, 17.5cm, Pangwari, Nok Area, Source; pinterest.com/nokworichard/Nok/

Plate II shows another anthropomorphic terracotta sculpture from Nok culture depicting a figure with human and animal characteristics. The figure is about 17.5cm in height, and depicted in abstract form showing man and bird as one. The eyes are very expressive with big ears and it has a distinctive hairstyle on the upper portion of the head, which appears human, while the lower part of the face or lower jaw is shown having a large beak.

The eyes are triangular and appear to look downwards. The eye brows are connected giving the impression that they were formed from a single piece of round clay. The middle of the eyes is hallowed out to form a dark hole in the face whereas the triangles or half circles frame the eyes. The nose of the figure is flat and broad and the ears are quite exaggerated. The terracotta figure has a head gear which looks like a bun at the back of the head and a horn-like shape in front of the head. The top knot is a style of hair twisted to form buns. It also has about five layers of lines round the head as part of Nok adornment. There is a crack on the side of the head, which can be seen and the cracks runs from the ears to part of the forehead and towards the back of the head meaning this piece might have undergone fusion.

Plate III: A Terracotta Head Like a Horse, Terracotta,35cm, 900 BC -200AD, Jema'a Nok, Source: http//2a. Pinterest.Com//12face76secgyya Nok-Terracotta.

The figure in Plate III is another therianthrophic terracotta sculpture from Jema'a. It possesses human and animal features. The figure is 35cm in height and was produced between 900BC - 200AD. The figure has an oblong shape of the head with two projections on its head and having the resemblance of a horse as an animal and a bun or hairstyle in between the two projections. The projection on the left side of the head is bigger and higher than the one at the right hand side. Both sides of the head show a hairstyle, which runs down from the ears by the eyes.

The face of the figure is quite expressive; the figure's eye sockets are triangular in nature with well-defined eyebrows, which show a resemblance to a horse. The shapes of the eyes were incised into the clay and the middle of the eyes has a dark hole. The treatment of the nose is different from those of other Nok terracotta sculptures. There is something in between the eyes that looks like a protrusion on the face. The nose is wider and broader, making it look like the nose of an animal with close resemblance to a horse. The mouth is shown open with thick lips. The figure is decorated with beads round its neck and on its left short arm that is broken. The figure is resting on a pedestal made up of wood with an iron at the middle to give it balance.

Plate IV: A Bird with a Human Face and a cap, Terracotta, 35cm, CA 500BC-500AD, Nok, Source: http//arthade.com/en/object/U1432/nok figure –

The figure in Plate **IV** is a bird with a human face wearing a cap on its head. It is a terracotta sculpture of a bird with an anthropomorphic/zoomorphic form from. It may be regarded as zoomorphic having more of animal form than that of a human. It is dated between 500BC-5000AD and is about 35cm in height. The sculpture is produced from terracotta (baked-clay) using the subtractive technique of modelling. The sculpture depicts a bird with a human face with pierced eyes, nose and mouth. The figure is depicted sitting on an upturned ceramic vessel, with a cap on the head. The terracotta figure has a triangular eye. The middle of the eyes has a dark hole, so also the nostril of the broad nose. The figure has a long neck with layers of decoration of beads around the neck. The feather and the tail of the figure appear very short with incised horizontal lines on them depicting a bird like image. It has short thick legs, wearing rings of decorated beads on them.

The terracotta sculpture is depicted having a relaxed and balanced sitting posture. This figure looks different from other terracotta sculptures from the Nok culture in terms of proportion, where prominence is not given to the head compared to other parts of the body.

Plate V: Terracotta Figure with Chin Resting on its Knee in Three Different Position, Terracotta, 38cm, 500BC-500AD, Nok village, Source: http//www.nigeriagalleria/Nigeria/State-Nigria/Kaduna/Ancient-Nok/Kaduna/htm

Plate **V** shows an anthropomorphic terracotta sculpture from Nok culture in three different views. The terracotta is dated between 500BC-500AD and it is about 38cm in height. This terracotta sculpture remains one of the most remarkable and unique works from the Nok culture because the figure has a complex hairstyle or headdress, which makes it outstanding. The figure is shown to have a round shape of head with an oblong face, while the eyes are positioned in triangle with holes in their middle and in the nose. The mouth of the figure looks thick with well-defined and parted lips. The nose is flat and broad with holes in them. The ears are not seen because the hairstyle running on both sides of the head covers them.

The chin is resting on the knee, while the left leg is resting on the floor of the platform as seen in the side view. Also the right hand of the figure is bent toward the shoulder, while the left hand is stretched to the left thigh of the figure, which is partially broken. The terracotta figure is highly adorned with beads around the neck, head, waist, ankle, wrist and upper arms. There is a slight projection around the lower part of the jaw looking like a beard. The hairstyle depicted is a bun on the head supported with beads.
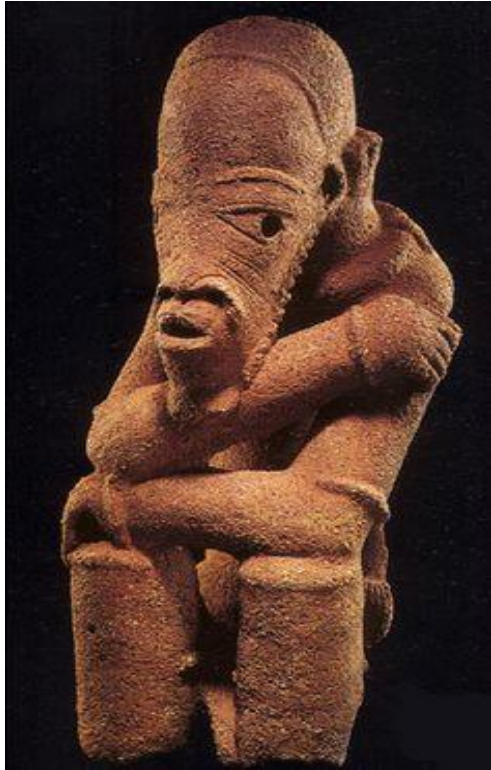
Plate VI: Nok Terracotta, Seated Male Figure: Terracotta, 53cm, 500BC-200AD, Nok, Source;http//www.nigeriagalleria/Nigeria/State-Nigria/Kaduna/Ancient-Nok/Kaduna/htm

Plate VI shows a terracotta sculpture that has close resemblance to a man and monkey. It is about 53cm in height. The facial expression or appearance of the figure is monkey-like in nature. The figure is depicted sitting with the chin of the figure resting on the right hand. Its right hand is also bent towards the left shoulder and the elbow of the right hand is shown resting on the left hand. It is obvious that the figure is depicted with a beard and shaped like a human being. It has short ears and the nose is flat and broad, while the mouth is open. The figure is shown to have a very rough texture and the triangular eyes and eyebrows are not well defined and detailed compared to other terracotta sculptures from the Nok Culture. The eyes and mouth have holes in them like the other Nok art pieces. From every indication, this is one of the terracotta from Nok culture that is not heavily adorned or decorated.

Plate VII: Nok Terracotta Figure of a Ram Head, Terracotta, 25cm, Source: http//2a.Pinterest.Com//12face76secgyya Nok-Terracotta.

Plate VII shows an anthropomorphic terracotta sculpture from Nok culture depicting human and animal features combined. The shape of the head and ears is like that of an animal with a resemblance of a ram. It has the facial features of a human being. The head has an oval shape, which is one of the three basic geometric forms in which Nok artists created the human head. This is one terracotta figure from the Nok culture that stands out because of its uniqueness, style and treatment of the human facial expression. The eyes, mouth, eyebrows, ears and the moustache look very expressive.

This figure from the Nok culture is highly stylized. The eyebrows, instead of being separated from the eyes, are joined together. The ears are short and stand erect like that of an animal, and they are not placed where the human ears are naturally placed. The triangular shape of the eyes is well defined and the mouth looks very thick like that of a human. The middle of the eye socket is hallowed out to form a dark hole in the face depicting the pupils; the same thing is done on the nose to project the nostrils. The authors observe unlike other terracotta, the nose of this one is flat. The figure is shown on a pedestal.

Conclusion
From the foregoing discussions made so far it is obvious that terracotta was used in the past by the people of the then Nok Culture who created or moulded anthropomorphic sculptures in their time, where humans and animals are incorporated into their art. Such figures are of high aesthetic value, which carries religious connotations. This study has further revealed that terracotta was one of the very first technologies conceived by humans, which predates the use of bronze and iron. It was also widely used in ancient art by different societies and civilizations, notably in Chinese, Greek, Mesopotamian, Egyptian, Italian, and Etruscan art. The Nok culture is a culture, which provides us with evidence of ancient civilization through its unique terracotta sculptures that were made for thousands of years. The paper further reveals that animals illustrated in Nok art include snakes, and lizards. They are said to have descended from a spiritual realm, where the boundaries between humans and animals are abolished.

References

Abdallah Y. U (2017) Nok within the Context of Nigerian Art Traditions, Exhibition Guide, Abuja A. Publication of National Commission of Museums and Monuments

Abdallah Y.U. (2014). Nok Terracotta Sculpture in the Context of Ancient Nigeria's Art Traditions: Nok African Sculpture in Archaeological Context, Germany Africa Magna Verlag, Frankfurt am Main Pp. 285-386.

Aliyu M.K. (2014). The Neighbours of Nok African Sculpture in Archaeological Context, Germany Magna Verlag, Frank Font, a Mann Pp. 279-282.

Alok, B. (2017). 29,000 Old Venus of Dolni Vestonice, The Oldest Known Ceramic Artifacts Reveals Some of its Secrets. Retrieved on the 2nd October, 2018 from http//www realmofhistory/com2017/09/01venus-of-dolni-vestoric.oldest-ceramic-artifact.

Amber, P. (2018), What Is Terracotta Retrieved on 25 June, 2018,
From: http//wwww.worldatlas.com/articles/what-is- terracotta.

Breunig, P. (2014). Research Restarted the Frankfurt Nok Project. Nok African Sculpture in Archaeological Context, Germany, Africa Magn Verlog, Frankfurt A Main Pp. 104-106

Brinkman V. (2014) .Discovering Worlds. Distant Lands in the Eyes of the Greek and Egyptians. Nok African Sculpture in Archaeological Context, Germany, Africa Magna Verlag, Frankfurt a Main Pp. 27.

Gillion, W., (2009). A Short History of African Art, U.S.A, A Penguin Publishers University of Michigan. Retrieved on 12 September, 2018, from http//dept.wofford.edu/Art History// html.

Griffen, W. (2018). What Is Terracotta, Retrieved on 23 July from http//wonderpolis.org/wonder/ what –is terra cotta.

Hayab, P.J. (2017). Narratives of Identity and Socio-cultural World View in Song Texts of the Ham of Nigeria: A Discourse Analysis1 Investigation. Unpublished PhD Dissertation, Faculty of Arts and Social Science at Stellenbosch University, South Africa.

Hirst, K. (2018). Nok Art: Early Sculpture Pottery in West Africa. Retrieved on July, 15, 2018
From: http//www.thought.com/nokearliet-sculptural-art-west-africa.

James, I. (1997). The Ham: It's People, Their Political and Cultural History. Jos University Press.

Jemkur, J.F. (1995). The Beginnings of Iron Metallurgy in West Africa "In Bocoum, H. (2004). The Origin of Iron Metallurgy in Africa: New Lights on Its Antiquity, West and Central Africa, UNESCO.

Mannel T.M. and Breunig, P. (2014).The Nok Culture's Terracotta Figures. Nok African Maina Verlag, Frankfurt A Main Pp. 189-194.

Neumann, K. and Alena, H. (2014). The Nok Region. A Savanna Landscape and its History. Nok African Sculpture in Archaeological Context, Germany Africa Magna Verlag Frankfurt A Main Pp. 41-42.

Prathyaksha (2016) Terracotta Work in Historic Buildings. A Case of Islamic and Hindu Architecture in West Bengal Retrieved on the 3rd March, 2019
From: http//Artageweb.Worldpress.Com/2016/09/04/Blog.Post Title

Rajesh, G. (2018). The Untold Story. Retrieved on 28th September 2018, from http//craftmanindia.blogspot.com 2015/12/ancient-terracotta-artfinding-its-way.

Rathus, L.F. (2010). Understanding Art Ninth Edition USA, Wardsworth. Pp. 274-275.

Richard, H. (2015). Yogyakarta Terracotta Biennale Celebrate Ancient Artistic Root Retrieved on 26th September, 2018

From: http//jakartaglobe.id/arts/Yogyakarta-terracotta-binnale-celebrates.ancient/artistic-roots.

Samuel, C. and Agada L. (2007). A Second Look at the Nok Art Ideology, Identity and Oral Tradition The Studio Journal, A Journal of Contemporary Art Practice and Theory. A Publication of Department of Fine Arts Ahmadu Bello University, Zaria, P. 44-50.

Sani, G.H. and Ibrahim, Y.H. (2015).The Ham. An Introduction to their Culture and Traditions, Kaduna, Published by Global Christian Communications.

Wikipedia (2019). Seated Woman of Catalhoyuk, Retrieved on the 18th October, 2018 from http//en.m.wikipedia/seated-woman-catalhoyuk.

Zimmermann, A(.2014), Interpreting From Within Material Culture ;Nok African Sculpture in Archaeological Context, Germany, Africa Magn Verlog, Frankfurt A Main Pp. 60-67

10.

DESIGN AND DEVELOPMENT OF CERAMIC POUR FLUSH SQUAT PAN FOR SUSTAINABLE WATER USE AND ENVIRONMENTAL HYGIENE

MATHIAS Helga,
Department of Industrial Design,
Faculty of Environmental Design,
University of Maiduguri
mathias.helga@gmail.com

ABUBAKAR Ezra
Department of Industrial Design,
Modibbo Adama University of Technology, Yola
ebubakar@gmail.com

And

ABDU Sheikh Ubale
Department of Fine and Applied Arts,
Aminu Saleh College of Education, Azare

Introduction
The provision of affordable housing, portable drinking water and sanitation facility such as toilets is a basic requirement of the Sustainable Development Goals target 6. Increasing population, poor governance and the rising level of poverty however, appeared to be militating against access to these basic amenities in most communities in Africa, especially Nigeria. The non-availability of sanitation facilities in schools, homes and public places is responsible for the high rate of open defecation (UNICEF, 2015, UNICEF, 2016) and increased cases of diarrhoea among adults and mortality among children as a result of ingesting contaminated food and water (Federal Ministry for Water Resources, 2018).

In the few places were public sanitary facilities are found, the volume of water required to flush and keep the facility clean combined with water scarcity have impaired their use. Given the increasing pressure on water arising from the rapidly growing population and the threat of climate change, the need for sustainable water use is evident. In view of these, high tech water efficient toilet systems such as the dual flush system have been produced to replace the non-efficient single flush system which require up to 9 litres of water per flush. Nonetheless, the high cost of these systems couple with the rising level of poverty in Nigeria means that, these systems are out of reach of most Nigerians especially those in the rural areas.

It is against this background, that this study was designed with the objectives of developing a cost efficient, affordable and water efficient Pour Flush Squat Pan toilet to curtail the economic, environmental, social, and health consequences of open defecation as well as boost Nigeria's target of ending open defecation by 2025.

Current State of Open Defecation in Nigeria
Open defecation is a major social issue in Nigerian that is impacting negatively on human health and the environment. With more than fifty million of Nigeria's population practicing open defecation, Nigeria is ranked third globally in open defecation (Federal Ministry for Water

Resources, 2018). The driver to open defecation in most urban and rural areas of the country has been linked to lack of adequate sanitary facilities (Federal Ministry of Water Resources, 2018).

The available data on open defecation across the country indicate conflicting figures, for example, data from National Demographic and Health Survey (2003) reveal that, roughly 18% of households use improved sanitation facility such as flush toilet, while 56% and 26% use traditional pit latrines and practice open defecation respectively. The same source also reveals an increase in household's use of improved sanitation facility and open defecation to 30% and 29% respectively and a decrease in the use of traditional latrines to 37%.

Despite the discrepancies in these data, the general consensus is that, there is a decline in access to improved sanitary facility and an increase in the rate of open defecation in Nigeria (Federal Ministry for Water Resources, 2018). The data also show that open defecation is a serious environmental problem that needs to be tackled urgently by providing affordable and accessible sanitation facilities in homes, schools and all public places (Demographic and Health Survey 2013; JMP, UNICEF 2016; WHO, 2015). Figure I shows the rate of open defection across some states of the federation.
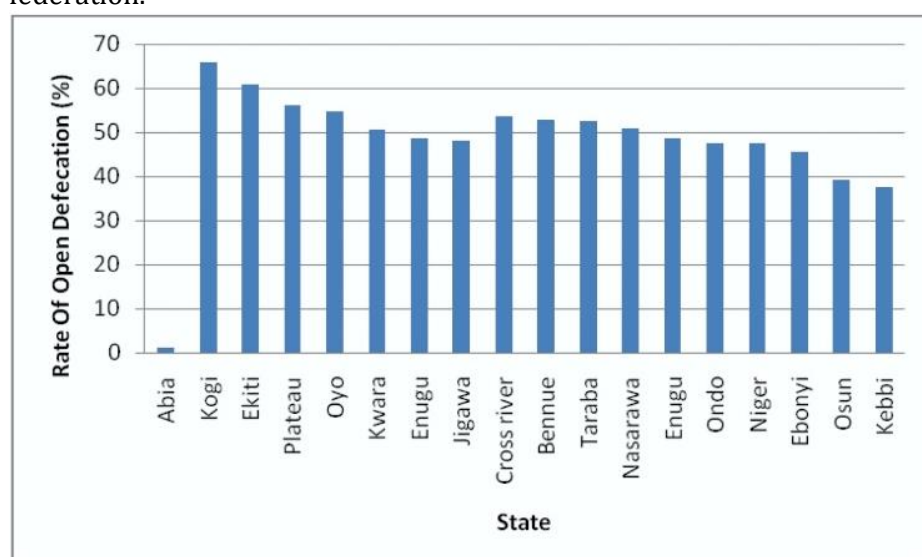
Figure I: Percentage rate of open defecation across some states in Nigeria

Impact of Open Defecation
Open defecation is a social, economic and environmental problem that is impacting significantly on the health and wellbeing of Nigeria's population particularly children and pregnant women. For example reports have indicated that, 121,800 Nigerians, including 87,000 under the age of five, die yearly from diarrhoea resulting from contaminated water, poor hygiene and sanitation (Federal Ministry for Water Resources, 2018).

Similarly, it is estimated that, Nigeria loses around ₦455 billion (US 3.6 billion dollar) a year due to activities associated with open defecation such as time spent searching for convenient places to defecate, loss of productivity due to sickness, seeking medical care, consultation and treatment and premature deaths (UNICEF, 2016). Open defecation has also exposed young girls and women to harassment, intimation and in some cases rape (Federal Ministry for Water Resources, 2018). Given the economic and health impact associated with open defecation in Nigeria, a report by JMP (2015), UNICEF (2015) and WHO (2015) recommend the provision of toilet facilities to an estimated 102,

088 million (56, 350 additional population plus 45, 7380 million currently defecating openly) Nigerians to curtail the aforementioned consequences and loses.

The provision of adequate and affordable sanitary facilities will therefore not only boost government's efforts to end open defecation by 2025 but will also aid Nigeria in meeting the United Nations revised target of open defecation free societies as well as the commitment to meet United Nations Sustainable Development Goal 6 and Partnership for Sustainable Water Supply and Sanitation Strategy.

The Quest for Toilet Efficiency and Sustainable Use of Water
Water is an essential part of human existence, which is said to be 'life' itself. Rising global population, the growing need for water couple with global climate change is however, a threat to global water supply. These bring to the fore the need to make human activity more sustainable and water efficient. One such human activity that needs to be made water efficient and sustainable is toilet flushing, which consumes between 25-35% of total indoor water use (Zaied, 2018). In view of this, studies have been carried out to reduce water wasting in toilet flushing (Zaied, 2018; An, Lee, and Kim 2014; Suratkon, Chee, and Rahman 2014; An, Lee, Jo and Kim, 2012) by advocating the installation and use of toilet systems that are water efficient such as the dual flush water closet which uses between 4.5 to 3.5 liters of water per full flush against the non-efficient ones that use 9 or more litters of water per flush.

The Impact of Cost on Accessibility of Toilet Systems
The choice of sanitary facility to install by individuals or households has been linked to economic status and level of education. For example, a study revealed that 95% of rich households with some level of education use improved highly efficient toilet facilities while only 12% of the poor use improved latrines (Federal Ministry for Water Resources, 2018).

The same study also shows that, urban dwellers with some level of education use either flush toilets with septic tank or latrine with slab while in the rural areas where level of education is generally low, pit latrine or open defecation are the most common options, while only 3% of the population without any form of education use toilet facilities, with the vast majority practicing open defecation. The study also reveal that, educated households or individuals whose income is usually high would normally install high-tech toilet facilities in their homes while those individuals who earn less will opt for the use of less efficient toilet systems or even pit latrines.

Given the rising level of poverty in Nigeria, the high cost of efficient toilet systems, which range between ₦50, 000 to ₦85, 000 depending on the brand (Table 1), couple with the fact that, majority of Nigerians live below the dollar, it is evident that, for Nigeria to successfully end open defecation, there is the need to provide affordable, efficient and sustainable alternative toilet systems for the majority of Nigerians who live below the dollar.

Table 1: Price range of different brands of toilet systems

Toilet Systems by Brand	Price range
A &C WC Seat	N50,000 - N60,000
Sweathone	N50,000 -N75,000
Nismad	N50,000 -N75,000
Virony	N65,000 - N85,000
Twyford	N45000 - N80000
Twyford squat pan	N4000 – N5000

Source: Researchers field work (2019)

Aim of the Study
The aim of the study is to develop a ceramic pour flush squat pan using local ceramic raw materials for sustainable water use and environmental hygiene.

Materials and Methods
Materials
Clay, kaolin, grog and Feldspar were used in the study for the formulation of a suitable body for the development of a ceramic squat pan. Prior to the development of the squat pan, normal procedure for raw material preparation such as grating, washing, grounding and sieving was carried out with a view to eliminating impurities such as stones, metals, glass shards that might interfere with the production process as well as providing a suitable particle size for good compaction and tensile strength. Other materials used in the study were digital weighing scale, 45 cubic foot downdraft kerosene kiln, Kerosene burner and thermocouple thermometer model 434.

Method
Design
Free hand sketches (Figure 2a & 2b) of the proposed squat pan and the mould were made for observations, alterations and modifications to ensure functionality and reliability. This was followed by full dimension drawing (Figure 3)
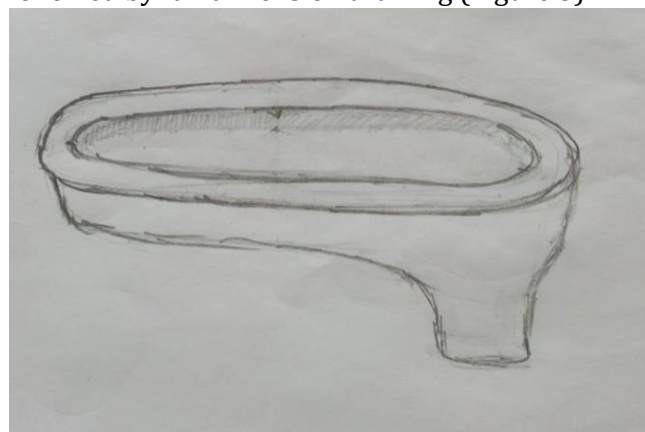
Figure 2a: freehand sketch of squat pan
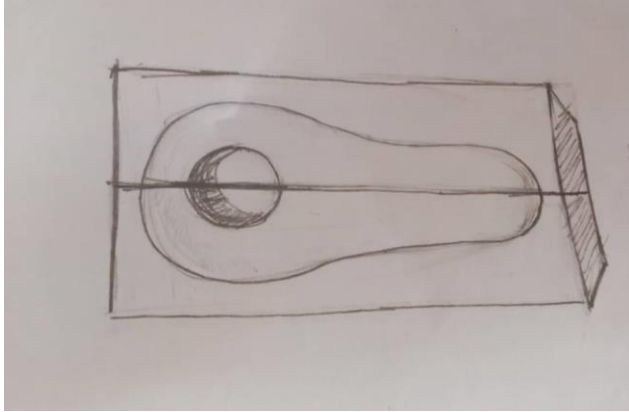
Figure 2b: freehand sketch of casting mould
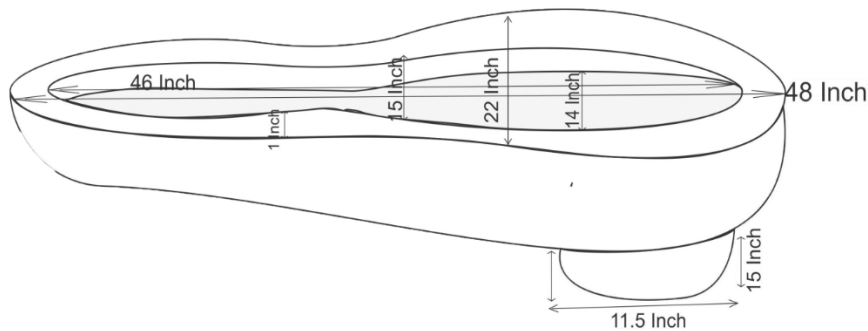
Figure 3: Dimensioned drawing of a squat pan

Batch Formulation

Quadriaxial blend of 16 tiles (Figure 4) were used to develop a body for the ceramic squat pan as recommended by Umar (2000). Quadriaxial blend of tile 3, which comprises of 32% Clay, 48% kaolin, 8% grog and 12% feldspar was selected. The choice of tile 3 was based on the outcome of a pre-test which indicated that, the body had the required plasticity and workability, mechanical strength and vitrification property for the production of sanitary ware capable of firing up to 1250ºC (Fortuna, Fortuna & Martini, 2017). These properties were derived from clay, kaolin, and feldspar. Kaolin improves the whiteness of the body, alumina rate and resistance to deformation at high temperature. To increase the flexural strength, green body grog was added (Hill, 1986).

Given the fact that both quartz and grog can perform the same functions, in the study, grog was used in place of quartz. The replacement was based on the availability of grog over quartz, and the fact that both grog and quartz can be used to reduce thermal expansion coefficient of the body as well reducing the firing cycle of the body resulting in reduced fuel consumption.

C- 64% K- 16% G- 16% F-4%　　1	C-48% K-32% G-12% F-8%　　2	C- 32% K- 48% G- 8% F- 12%　　3	C- 16% K- 64% G- 4% F-16%　　4
C- 48% K- 12% G- 32% F- 8%　　5	C- 36% K- 24% G- 24% F- 16%　　6	C- 24% K- 36% G- 16% F- 24%　　7	C- 12% K- 48% G- 8% F- 32%　　8
C- 32% K- 8% G- 48% F-12%　　9	C- 24% K- 16% G- 36% F- 14%　　10	C- 16% K- 24% G- 24% F-36%　　11	C- 8% K- 32% G- 12% F-48%　　12
C-16% K- 4% G- 64% F-16%　　13	C- 12% K- 8% G- 48% F-32%　　14	C- 8% K- 12% G- 32% F-48%　　15	C- 4% K- 16% G- 16% F- 64%　　16

Figure 4: Quadriaxial of blend of 16 tiles

The squat pan was then formed from a blend of materials on tile 3 using slip casting technique and a mould developed from plaster of Paris (Plate 1a & b).

 Plate 1a: Front view of a plaster mould

Plate 1b: Rear view of a plaster mould

Shrinkage, Water Absorption and Flexural Strength
To comply with international safety and hygienic requirements, parameters such as shrinkage, water absorption rate and flexural strength were determined based on ASTM standards C-373-72 and C-326-76.

Glaze composition
To enhance the aesthetic quality of ceramic pour flush squat pan and make it impervious, a glaze composition of 50% feldspar, 30% kaolin, 15% ball clay and 5% zircon was made and applied to the squat pan and fired to a gloss temperature. The aforementioned glaze recipe was chosen to ensure compatibility between body and glaze with a view to eliminating crazing and peeling.

Firing
The developed squat pan was fired to bisque and gloss temperature in a reducing kiln atmosphere (Plate 2a & b)

Plate 2b: Bisque fired Squat Pan

Plate 2b: Gloss fired Squat pan

Results and Discussions
Flexural Strength, Water absorption and Shrinkage Rate of the Squat Pan Body
The result of the flexural strength indicated that, the body has the capacity to withstand a pressure of 40.50 Mega Pascal (MPa). Similarly the results of shrinkage level and water absorption revealed that, the body has 10.95% and 0.4% shrinkage and water absorption rates respectively. These values are comparable to the international standards that require a flexural strength of above 40 MPa. If the ware is to withstand the rigor of handling and use without brakeage, water absorption rate of less than 0.5% and a shrinkage rate of less than 12% (Martini, Fortuna, Fortuna, Rubino & Tagliaferri, 2017) are to be ensured.

Firing
The developed Ceramic Pour Flush Squat Pan was first fired to a bisque temperature of 900^{0}C in 5 hours (Figure 5) and then to a medium stoneware temperature of 1220^{0}C in reducing atmosphere for 7 and the half hours (Figure 6)
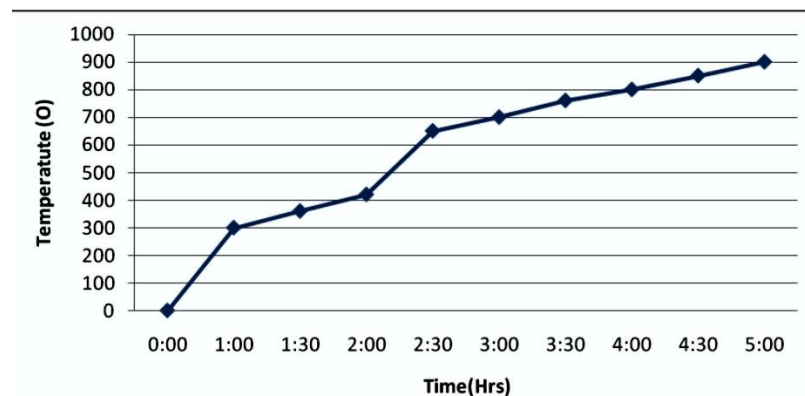
Figure 5: Bisque firing temperature and time relationship
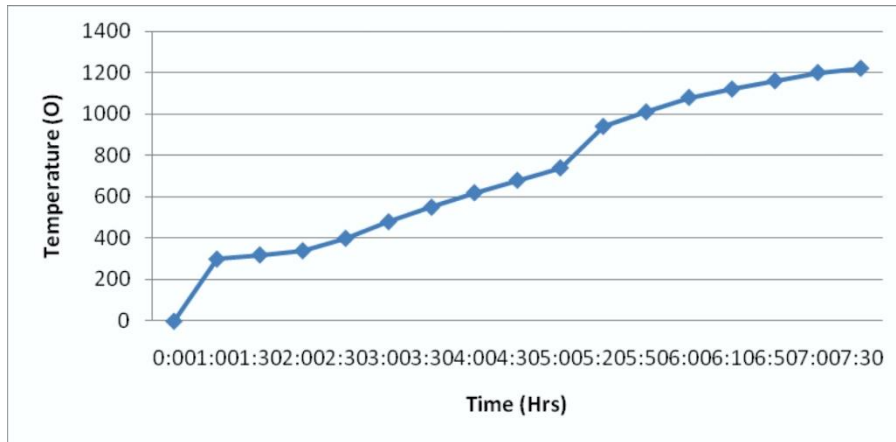
Figure 6: Gloss firig temperature and time relationship

The result of the firing also indicated that, the replacement of quartz with grog did not appear to affect the physical and mechanical properties of the squat pan. Based on the material composition of the squat pan, however, it was expected that, the body vitrified at 1250⁰C instead of the recorded 1220⁰C. The reduction in firing temperature was attributed to reduction in the silica content of the body resulting from the replacement of quartz with grog. This is consistent with Martini, et al. (2017) who also report a decrease in firing temperature when quart and feldspar were replaced with recycle glass.

Functionality and Water Efficiency Test
The squat pan produced from a blend of ball clay, kaolin, feldspar and grog was tested for functionality and water efficiency and the result indicated that the recorded flexural strength, water absorption and shrinkage rate made the pan hygienic, with a capacity to withstand pressure from usage. In terms of water efficiency, the test showed that, only 1 litre of water was required to flush the developed pan (Plate 3) against the 4.5 to 3.5 litres of water required to flush a dual flush toilet system (Plate 4), the two litres required to flush an imported squat pan (Plate5), or 1 bucket of water required to flush dual pit off-site flush flow latrine. The result also revealed that, the cost price of ₦2, 500 for the developed squat pan made it cheaper than the ₦4000 to ₦5000 cost price of imported squat pan.

Plate 3: Developed squat pan

Plate 4: Dual flush toilet system

Plate 5: Imported squat pan

Conclusion

A blend of clay (32%), kaolin (48%), grog (8%) and feldspar (12%) was found to be suitable for the production of ceramic squat pan. Similarly, the flexural strength of 40.50%, water absorption rate of 10.5% and shrinkage level of 0.4% recorded were enough to provide the standard hygienic quality and strength required for sanitary ware to withstand the rigor of handling and use. The developed pour flush ceramic squat pan is cost effective and more water efficient than the dual flush system which require up to 4.5 litres of water per flush. The adoption of the squat in both rural and urban areas will boost the effort of the federal government of Nigeria in ending open defecation by 2025.

References

An, I.Y., Lee, Y.L., Jo, W.S, & Kim, J.H. (2012) A study on development of high efficiency toilets with VOF numerical analysis. *J Korean Soc. Manuf. Technol Eng*., volume 21, No6, Pp. 946-953

An, I.Y., Lee, Y. L., Kim, J-H, (2014) A study on the characteristics of a super water-saving toilet with Flexible trap way by measuring accumulated flow rate. *J Mech. Sci. Technol,* Volume 28, No. 8, Pp. 3067-3074.

Dean, T. (2014), UN vows to eliminate open defecation by 2025. United Nations University retrieved

November 16, 2019 from https://ourworld.unu.edu/en/un-vows-to-eliminate-open-defecation-by-2015

Fortuna, A., Fortuna, D., M. & Martini, E. (2017) an industrial approach to ceramics: Sanitary Ware. *Plinius*, Volume 4, Pp. 138-145

Federal Ministry for Water Resources (2018) Quality control and sanitation retrieved November 16, 2018 from https://waterresources.gov.ng/water-quality-control-and-sanitation

Hill, S. (1986) an approach to single firing. Ceramic monthly retrieved on April, 12th 2019 from www.apprach to single firing.com

JMP (2014). Key fact from JMP annual report Retrieved September 10, 2019 from https://www.who.int/water_sanitation_health/publications/JMP-2015-keyfacts-en-rev.pdf?ua=1

National Demographic Health Survey (2013) Nigeria's demographic health survey retrieved November 8, 2019 from https://dhsprogram.com/pubs/pdf/GF5/nigeria2003generalfactsheet.pdf

Martini, E., Fortuna, D., Fortuna, A., Rubino, G. & Tagliaferri, V. (2017). Sanister, an Innovative sanitary ware body formulated with glass and recycled materials. *Ceramica*, Volume 63, No, 2017, Pp. 524-528

Umar, A.D. (2000) Studies on the qualities of Alkaleri Kaolin in High Fired Ceramics. Unpublished PhD thesis, Submitted to the Department of Industrial Design, Abubakar Tafawa Balewa University, Bauchi.

UNICEF, (2015) Progress on sanitation and drinking water. Retrieved October 9, 2019 From:www.https://data.unicef.org/wp-content/uploads/2015/12/Progress-on-Sanitation-and-Drinking-Water_234.pdf

UNICEF, (2016) Making Nigeria Open defecation – free: A national road map retrieved from November 8, 2019 from www.https://unicef.org/nigeria/reports/making-nigeria-open-defecation-free-2025-national-road-map

Suratkon, A., Chee, M. C. & A. B. Rahman T. S. T., (2014). Smart WUDHU: recycling ablution water for Sustainable living in Malaysia. *J Sustain Dev., Volume* 7, No 6, Pp. 150-157

WHO/UNICEF (2015) Joint monitoring programme for water supply, sanitation and hygiene Retrieved October 10, 2019 from: http://www.unwater.org/publications/whounicef-joint-monitoring-program-water-supply-sanitation-jmp-2015-update/

Zaied, R A. (2018) Development of water saving toilet flushing mechanism. *Applied Water Science,* Volume 8, No 53, Pp. 2-10.

11.

AN EVALUATION OF DIGITAL PHOTO-MANIPULATION SOFTWARE USE AMONGST GRAPHIC DESIGN STUDENTS OF AHMADU BELLO UNIVERSITY, ZARIA

PALNAM Ijudai Musa,
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
ijudaimusa@yahoo.com

And

AZI J.I.
Department of Industrial Design,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria
azijoe86a200@yahoo.com

Introduction

To make a graphic design work remarkable, artistic and marketable; images or photos used in designs deserve a closer study. The appearance of an image on a graphic design is a key virtue in visual impact. Images used are the principle part in a design that is most advantageous in commercial competition because of their significant influence on viewer responses. According to Azi (2013), Digital photo-manipulation is the application of image editing techniques to photographs in order to creatively develop an idea in contrast to mere image enhancement or correction, through digital means.

This paper primarily explores the significance of digital photo-manipulation as a creative tool for expression, with specific reference to graphic design students of Ahmadu Bello University, Zaria. With the advancement of technology, photo-manipulation has opened a limitless pathway to creative expression for graphic designers (Azi, 2013). Photo-manipulation as a work of art promotes creativity, helps support media articles, promotes product advertising, tells a story, brings the viewers in, sells a product or an idea and induces positive consumer response, as a latent art and design tool.

This paper advocates for the enhancement of creative craftsmanship of graphic design students in Nigeria, using digital photo-manipulation techniques to meet global standards in digital art improvements especially in graphic design studies. Anthony (2013) explains photo-manipulation to be a form of art, where either images or photos are changed or several photos combine to create a new one, to depict concept as a creative designer. Photo-manipulation is a tool used by photographers, photo journalists, photo editors, graphic designers, curious imaging artists, mass media, visual artists, just to mention a few.

Statement of the problem

The problem of this study arises because of the fact that, in spite of the limitless potentials and advantages of photo-manipulation techniques as a tool for enhancing creative expression skills, this art form seems to be under-explored and underutilized. Photo-manipulation is seen to offer graphic design students and graphic designers the tool to be able to freely express their inner creative skills. Low confidence level, poor technical competency and lack of proper sensitization on photo-

manipulation techniques may be major contributory factors. Image editing has become a common activity that every designer seems to be indulging in, including non-professionals, a development that is seen as one of the most significant benefits of the digital age. Irrespective of the opportunities provided by such digital technology tools, the quest for interest and competency amongst graphic design students remains unfulfilled.

Objectives of the study
The objectives of the study are to:
    i.   examine the role of photo-manipulation as a tool for creative expression
    ii.   examine the importance of photo-manipulation skills in graphic design

This study is significant, as it provides guidance and additional literature on photo-manipulation as a tool for enhancing creative expression amongst graphic design students. It also advocates for the enhancement of creative craftsmanship of graphic design students by integrating photo-manipulation using software like Photoshop to improve the current state of computer graphics in Nigeria.

What is Photo-manipulation?
Photo-manipulation involves making changes to the appearance of a photo for various purposes, such as advertisements, magazines, books, package designs and gallery artwork. Images are altered with the use of computer software, producing images that are visually appealing, surreal, striking, humorous or eye-catching in some way (Azi, 2013). Multiple images are often combined to create a juxtaposing collage or unique image.

Photo-manipulation is as old as photography itself, and its history can be seen as part of the history of image manipulation in general, which can be found in Ancient Egypt. Before computers, photo-manipulation were achieved by retouching with ink, paint, double exposure, piecing photos or negatives together in the dark room. Darkroom manipulations are sometimes regarded as traditional art rather than job related skill. In the early days of photography, the use of technology was not as advanced and efficient as it is now. Results are similar to digital manipulation but they are harder to create back then. An early example of tempering was in the early 1860s, when a photo of Abraham Lincoln was altered using the body from a portrait of John C. Calhoun and the head of Lincoln from a famous seated portrait by Mathew Brady, the same portrait which was the basis for the original Lincoln five-dollar bill.

The 1980s saw the advent of digital retouching with Quintal computers running Paintbox and Scitex imaging workstations being used professionally. Silicon Graphics computers running Barco Creator became available in the late 1980s, alongside other contemporary packages, which were effectively replaced in the market by new software packages such as Adobe Photoshop.

The Role of Photo-Manipulation in Graphic Design
Employing photo-manipulation or photo-editing techniques empowers the designer with the capacity to reshape a photographic image to fit specific media needs like newspapers, magazines, posters, product advertisement or web publication at a point in time. David (2010) asserts that, photo-manipulation is one of the most creative forms of expression to come out of the digital age. It offers an ever evolving collaboration between photography and graphic design, combining certain elements to create a unique image that can convince even the most experienced set of eyes and requiring very creative skills.

With the expansion of new technologies in the production and use of computers that assist in design and societal advances in the fields of visual arts, architecture and design, emphasis is now placed on acquisition and application of information towards new aesthetics within the visual arts professions. In design and architecture professions, the major focus today is no longer on pure form generation, which has been the case in the past. A more comprehensive position relative to user needs and involvement, affordability, resources, environmental conservation and the ability to produce through industrialized manufacturing methods has been established.

Advantages of Photo-Manipulation in Graphic Design
Photo-manipulation is a tool used by photo editors, graphic designers and others working in visual communications, communication design, visual arts, mass media, content design and related fields. Katie, (2014) observes that photo-manipulation is creative and imaginative, producing photos that are unexpected, visually appealing, surreal, striking, humorous or eye-catching in some way. Photographs are modified to develop magazine covers, page layouts and album or book covers. Multiple images are often combined to create a juxtaposition, collage or unique image.

Photo-manipulation uses a mixture of photography and graphic design. Thus, a photo that underwent this procedure offers an illusory appeal similar to photo art. One of the easiest photo manipulation methods is known as image warping. Photo-manipulation uses creativity to put together and change certain areas of a picture to create a photo that is true-to-life. It takes a photo to another level by making it appear real instead of just an image (Megan, 2012).

Potentials of Creative Expression in Graphic Design
It is popularly said that, "what we see has a profound effect on what we do, how we feel and who we are" (Science Daily, 2005). Through experience and experimentation, humans continually increase in the understanding of the visual world and how we are influenced by it (Mike, 2012). Studies (Science Daily, 2005) reveal that the human brain deciphers image elements simultaneously, while language is decoded in linear, sequential manner taking more time to process.

Our minds react differently to visual stimuli. Relatively speaking, in terms of communication, textual ubiquity is brand new. Thanks to millions of years of evolution, we are genetically wired to respond differently to visuals than text. For example, humans have an innate fondness for images of wide, open landscapes, which evoke an instant sense of well-being and contentment. American psychologists hypothesize that this almost universal response stems from the years our ancestors spent on the savannahs in Africa (Mike, 2012). A child is capable of looking and recognizing shadows and images before he/she is able to speak real words. Creative expression in design is very important and cannot be over emphasized because it plays a crucial role in graphic design and communication.

Some Basic Techniques That Are Essential for Successful Photo-Manipulation
Photo-manipulation techniques are used by designers in developed countries to create extremely creative works of art. Once the key techniques in photo-manipulation are understood, creating designs that are imaginary to the simplest idea can be conveyed using photo-Manipulation (Anthony, 2013).

i. **Rendering and Combining Multiple Images:** Photo-manipulation takes various images (either stock images or photographed) and merge them together, using any photo-manipulation software package; for example a tool called vertus fluid mask in Photoshop helps render out images in a matter of minutes using special masking tools.

ii.   **Colour Blending:** This process helps images blend easily with one another and most importantly, form a nice coherent work of art.

iii. **Proportion:** Proportion is probably one of the most important techniques in photo-manipulation, if a design is going to be extremely farfetched, then it has to look realistic and proportion makes a huge difference in how realistic an artwork looks.

iv.   **Emphasis on Detail:** When creating a piece of art or design, one area has to be the focus. This is aimed at drawing the viewers' attention instantly to the spot. There are many techniques to doing so, one of which is to work on focusing attention on the most vibrant, colourful, or sharp area in an artwork or design.

A Review of Photo-manipulated Art and Design Works
Find below an overview of some designs from the print media that have been produced using photo-manipulation techniques.

Fig. I, Title: Creative 7UP Advert, Artist/Designer: Garrigosa Studios,
Source: http://mymodernmet.com/10-incredible-photo/

Fig I above shows a typical example of digital photo-manipulation in advertisement. Instead of just displaying the product (7up) image alone, the designer went further to add a creative image of lemon using water splash effect, which further makes the product attractive, captivating and eye catching, which in turn promotes the product.
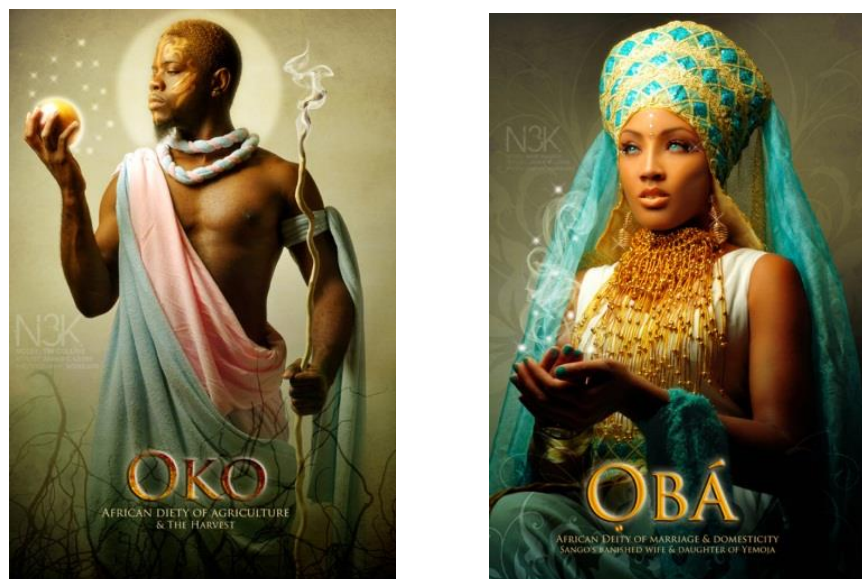
Fig. II, Title: African Yoruba Orisha, Artist/Designer: James C. Lewis
Source: http://africanluxurymag.com/the-orisha-experience/

Fig II above shows an artwork designed by James C. Lewis entitled Yoruba Orishas. Lewis was intrigued with the story, characters and regality of the Orishas and embarked on an inspiring and creative digital photo-manipulation photography project to express some of the Orishas the way he saw them. He employed photo-manipulation techniques to render images of Sango, Obatala, Ogun, Oya, Osumare, Babalu-aye, and a host of others. This is a typical example of works that could be done by indigenous artists and designers in Nigeria to promote our cultural heritage, by taking advantage of the advancement of technology with specific reference to photo-manipulation in our age and time.

Methodology
Primary data were sourced through the use of structured Likert-scale questionnaires, interviews and observations. The target population for this research includes both Undergraduate and Diploma Graphic Design Students of Ahmadu Bello University, Zaria. The sample was attained using simple, random sampling technique to ensure every individual had an equal chance at selection. A simple percentage was used to analyse the data collected. This method of data analysis is considered suitable, because the results can be represented graphically and distributed in tables using percentages.

Results

Table I. Distribution of Respondents by software experience level

Software experience level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Beginner	10	33.3%	33.3%	33.3%
Intermediate	15	50%	50%	50%
Professional	5	16.7%	16.7%	16.7%

Questions		Response									
		SA		**A**		**D**		**SD**		**U**	
		F	%	F	%	F	%	F	%	F	%
1	Photo-manipulation helps to induce positive consumer response?	13	43.3	17	56.7	0	0	0	0	0	0
2	Does photo-manipulation have the capacity to induce variety in a photo viewing experience?	14	46.7	15	50.0	0	0	1	3.3	0	0
3	Should Photo-manipulation software be a creative art tool utilized by graphic designers?	17	56.7	12	40.0	0	0	0	0	1	3.3
4	Photo-manipulation techniques help to make objects in a photo more visually interesting?	13	43.3	16	53.3	0	0	1	3.3	1	3.3
5	Have you used photo-manipulation techniques before?	8	26.7	11	36.7	2	6.7	7	23.3	2	6.7
6	Do graphic designers have the potentials of acquiring and mastering photo-manipulation techniques?	6	20.0	12	40.0	3	10.0	3	10.0	6	20.0
7	Does photo-manipulation skills require basic graphic design knowledge?	9	30.0	11	36.7	4	13.3	4	13.3	2	6.7
8	Is photo-manipulation creatively combining and modifying elements of Photos to produce a unique design that is convincing to a viewer?	13	43.3	9	30.0	3	10.0	2	6.7	3	10.0
9	Is Photo-manipulation a tool used by communication designers?	5	16.7	19	63.3	1	3.3	3	10.0	2	6.7
10	Are you aware of any photo-manipulation design in print media?	5	16.7	19	63.3	1	3.3	2	6.7	3	10.0
11	Do you think that Photo-manipulated images relay intended messages or ideas effectively at a glance without the aid of text?	10	33.3	15	50.0	0	0	0	0	5	16.7
12	Are you aware that many successful graphic designs in advertising are subjected to photo-manipulation techniques?	6	20.0	16	53.3	2	6.7	3	10.0	3	10.0
13	Is photo-manipulation technique being taught in the department?	8	26.7	0	0	10	33.3	9	30.0	3	10.0
14	Are photo-manipulation tools such as computer systems and software packages made available to graphic design students in the department?	1	3.3	12	40.0	10	33.3	4	13.3	3	10.0
15	Do graphic design students in the department have access, one way or the other to basic photo-manipulation tools, such as a computer system and software packages?	10	33.3	18	60.0	2	6.7	0	0	0	0

		SA		A		D		SD		U		
16	Can Photoshop and CorelDraw be used in photo manipulation	21	70.0	9	30.0	0	0	0	0	0	0	
17	Have you used Photoshop or CorelDraw for at least six months of your study?	24	80.0	6	20.0	0	0	0	0	0	0	
18	Have you used Photoshop or CorelDraw to make designs as a graphic design student?	23	76.7	6	20.0	0	0	0	13.3	0	0	

SA: Strongly Agree, **A:** Agree, **D:** Disagree, **SD:** Strongly Disagree, **U:** Undecided

Major Findings
From the data gathered on graphic design students, within the Department of Industrial Design, Ahmadu Bello University, Zaria, the following findings were established.

I. Photo-manipulation is seen as a trendy computer graphic design skill that warrants free creative expression.

II. Photo-manipulation is underexplored and underutilized amongst graphic design students of Ahmadu Bello University, Zaria.

III. Photo-manipulation is flexible in enhancing the appearance of an image on a graphic design work.

IV. Graphic design students of the Department of Industrial Design require more exposure and sensitization on the benefits of this graphic design tool, towards enhancing their competence in computer graphic design.

Conclusion
From the data collected through questionnaires administered to graphic design students within Ahmadu Bello University, Zaria the following conclusions were made. The data analysed, revealed that the respondents (graphic design students) have access to computer graphic design tools at their disposal, but have underexplored and underutilized such in enhancing the aesthetic and functional characteristics of their designs due to lack of awareness.

The data analysed also revealed photo-manipulation technique is not incorporated in the syllabus of the respondents. The combination of appearance with aesthetic standards is a major function of a graphic designer's skills. Photo-manipulation makes photos visually appealing, surreal, striking or eye-catching, which makes this tool significant in graphic design.

Recommendations
The following recommendations are suggested in view of the findings and conclusion of this study:
1. Photo-manipulation is a creative art tool that should be utilized by graphic designers given its flexibility and freedom.

2. Graphic designers should carefully and creatively take advantage of this technique, in strengthening and possibly repositioning their practice in this digital age.

3. Photo-manipulation techniques should be inculcated in the syllabus of all graphic design schools in order to enable graphic design students to learn, towards enhancing their skills and professional competence and making them competitive after graduation.

4. Graphic designers in Nigeria should keep abreast of trends in graphic design and computer technology in order to ensure their place is not taken by other professions and non-professional designers especially in multimedia communication environments.
5. Graphic designers in Nigeria especially undergraduate graphic design students should keep up with new and updated computer graphics and design software either on their own or with the help of formal software training programmes. Graphic designers must be creative and able to communicate ideas visually.

References

Azi J. I., Dakyes S. U., and Ogunwole S. O. (2013). Use of Photo-Manipulation Techniques in Enhancing Magazine Cover Portraiture: Lessons for Journalistic graphics in Nigeria. International Journal of media and Communication Studies. Vol 5. http://www. academicjournals.org. Retrieved September 14, 2014.

Anthony. C. (2013). What is Photo-Manipulation? Editing Photographs to Create Illusions and Enhance Story Telling. http://www.google.com/what is photo-manipulation. Retrieved August 10, 2014.

David, O. (2010). Taking Graphics to New Heights: African Artists Digital Art. Bookmarked the Permalink. http://www.google/taking graphics to new heights. Retrieved July, 2015.

Katie, P. (2014). The Advantages of Photo-Manipulation: One link Solution. http://www.google /the advantages of photo-manipulation. Retrieved August 15, 2014.

Megan (2012). Photo-Manipulations in Advertising: Make Something Mondays. http://www. Google/photo-manipulations in advertising. Retrieved April, 2015.

Mike, P. (2012). The power of Visual Communication: Do-It-Yourself Billion Dollar Graphics. http://www.google/the power of visual communication. Retrieved July, 2015.

Science Daily (2005). Understanding Visual Processes for Visual Communications. http://richardBinhammer.com/understanding-visual-processes-for-visual- communications/. Retrieved 19th December, 2015.

12.

THE RELEVANCE OF EBIRA TAO WEAVING TECHNIQUE IN SOCIO-CULTURAL INTEGRATION AND SUSTAINABLE IDENTITY OF THE EBIRA PEOPLE IN NIGERIA

SALAWU Nanahawa
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri,
Borno State Nigeria
salawunana@yahoo.com

Introduction
The clothing need of man has been satisfied over time through a variety of textiles (woven, knitted, felted and so on), from the very crude to the now sophisticated types. The most important of these all is of course, the woven textiles. As reported by Kureave and Audu (2005), woven textiles are not only the earliest types, but also the most important and most commonly used the world over. They are principally used for the purposes of covering nakedness, adornment of the body, identification and so on. Most importantly, woven textiles are found to shape the social, cultural and economic lives of many ethnic groups and societies of the world.

Like any other traditional African society, the Ebira people in Okene, Okehi, Adavi, and Ajaokuta have over time depended on Arts and Crafts of various shades for socio-cultural and economic subsistence. Crafts that have featured prominently in shaping the socio-cultural and economic lives of the Ebira People include: pottery, basketry, mat weaving, wood carving, cloth weaving, dyeing and so on. More than any of these crafts, the Ebira people in Kogi State of Nigeria have depended on cloth weaving (especially the "Ebira-Tao" woven fabric) for centuries.

The "Ebira-Tao" fabric has since been adapted by the Ebira as their cultural symbol. Ebira weaving has been observed as one of the major crafts in Nigerian society since ages to date. Nigeria has many ethnic groups that are blessed with one form of traditional occupation or the other. Such traditional occupations are few and they can be easily identified with a particular community. Ebira-Tao people of Okene have such occupation in Cloth Weaving. Okene traditional cloth weaving is so special that its products have been observed as outstanding among others wherever one comes across them (Salawu, 2014).

Cultural and Social Identity
Identity is a term that is widely used and, as a consequence, can mean many different things to different people. Identity is sometimes used to refer to a sense of integration of the self, in which different aspects come together in a unified whole. This intra-psychic emphasis is often associated with Erik Erikson, who introduced the term "identity crisis" as part of his stage model of psychological development. Another common use of the term, particularly in contemporary times, is identity politics, where the reference is typically to different political positions that are staked out by members of ethnic and nationality groups.

The term "social identity" refers specifically to those aspects of a person that are defined in terms of his or her group memberships. Although most people are members of many different groups, only some of those groups are meaningful in terms of how we define ourselves. Identity, according to Given (2008) is a social process involving perception and differentiation. It can be defined as the

ways in which individuals and groups regard themselves as similar to, or different from, each other. These perceptions can change over time, so identity is a fluid construct rather than a static one (Sherry, 2008).

Social Identification is the process by which we define ourselves in terms and categories that we share with other people. In contrast to characterizations of personal identity, which may be highly idiosyncratic, social identities assume some commonalities with others. For many people, ethnicity is a central element of self-definition and becomes an important social identity. In the past, social scientists categorized human beings in terms of basic racial categories, such as Asian, Caucasian, and Negroid. With increasing awareness of the arbitrary nature of the social construction of race, these categories are less frequently used. More common today is categorization on the basis of ethnicity, defined in terms of culture, language, and country of origin (Deux, 2009).

Cultural Social Integration
According to United Nation (2005), Social Integration can be seen as a dynamic and principled process where all members participate in dialogue to achieve and maintain peaceful social relations. Social integration does not mean coerced assimilation or forced integration. The need for social integration from the perspective of the United Nation was premised upon the need to move toward a safe, stable and just society by forming and mending conditions that could lead to social disintegration.

The Copenhagen Declaration on Social Development according to Jeannotte (2008:6) bears some resemblance to the conceptualizations described above in that it explained social integration as:

> the process of fostering societies that are stable, safe and just and that are based on the promotion and protection of all human rights, as well as on non-discrimination, tolerance, respect for diversity, equality of opportunity, solidarity, security and participation of all people, including disadvantaged and vulnerable groups and persons.

In other words, social integration should be seen as the process of promoting the values, relations and institutions that enable all people to participate in social, economic and political life on the basis of equality of rights, equity and dignity. This definition excludes process of social integration based on force or that attempt to impose unitary identities on reluctant populations. Promoting social integration requires attention to different, but inter-linked, processes that shape the extent to which people are able to live and work together on an equal basis: Recognition of diverse social groups, cultures and identity in order to promote respect, dignity and co-operation.

Social integration moves the community towards peaceful social relations of coexistence, collaboration and cohesion. Social integration is the process of building the values, relations and institutions necessary to achieve that society. Social integration is about making societies more equitable. It requires actions to renegotiate and redefine existing social contracts which define the rights and responsibilities of citizens, states and the private sector. In the broadest sense, the term integration is used to define developments that determine connections of related diverse elements into the social whole, system, community, or other unit. The concept of integration is a fundamental one in functionalist theories, and it defines a mode of relations of the units of a system by virtue of which, on one hand, they act to avoid disrupting the system, and, on the other hand, they cooperate to promote its functioning as a unit.

The conception of integrity is important in other theoretical perspectives that use other concepts as well, e.g. consensus, solidarity, correspondence, etc. When discussing ethnic processes, the concept of integration is not just closely related to the processes of socialisation, acculturation, and assimilation, but it is also an inseparable part of the course and result of these processes. Every phenomenon of social integration is conditional and insufficient because it is a continuous process, a certain level of which is necessary for the functioning of every social system.

Considering the concept of integration in the context of the theories of ethnicity, relations among ethnic groups, conceptions of integration, assimilation or pluralism can be discussed in a broad continuum, i.e. different aspects provide a great variety of possible interpretations. identities, attitudes, behaviour, and participation in the social sphere of ethnic groups are influenced not only by the matters that take place within the boundaries of ethnic groups or in relation to other groups, but by the processes that take place in the broader society.

What matters is how ethnicity will be treated in the future, how it will affect social mobility and participation in majority society. On the other hand, social integration is related to an individual's position in the social topography and an individual's capabilities and opportunities to apply those capabilities. Also, it is very important to consider the status or position in the social topography that an individual ascribes to her/himself, how s/he perceives her/himself in the social context. In addition, an important matter is what could be defined as an individual's "visibility" in the social topography, i.e. the symbolic significance of the position held.

Traditional clothes and Social Interaction, identity and Integration
Arnold (2001), Edensor (2001), Maurin (2001) Derrett, (2003), Jeong and Santos (2004) and Lade and Jackson, (2004) assert that Cultural Clothing is an avenue for cultural exploitation, manifestation and enculturation among the people of the community whose cultural values, norms and shared beliefs are a subsidiary. As a people whose ways of life is uniquely and deeply rooted in culture, festivals become a veritable platform through which they socialize and integrate. Festivals afford the audience a first-hand, interactive experience with culture, as the source of thematic choices in the performing arts is essentially cultural. Thus, the people's culture ensemble through the traditional weaved clothes becomes one of the drivers of cultural creativity and sensitivity that are appreciated by the people who are directly and indirectly connected to the depth and insights of the people's way of life (Coker and Coker, 2009). Social and cultural interaction between immigrants and established residents creates the cross-cultural understanding that helps all community members gain a level of comfort with one another and widens their appreciation for all cultures. It has the potency that can unite, rather than divide. Culture plays a significant role in defining our identity and worldview.

A sense of community cultural identity and integration is an almost invisible yet critical part of a community. Though hard to define, it includes a community's image, spirit, character, pride, relationships, and networking (Bush, 2000). A sense of community comes from a shared vision, where a clear sense of purpose, individual's ideas and contribution involve working together on community issues, celebrations, and problem solving. Developing a sense of community is challenging. It involves long-term work, building levels of connectedness, belonging, and support (Derrett, 2003).

The organizations and civic institutions managing the Ebira Tao cloth offer a spatial boundary in terms of place, which harnesses the community's vision of itself and provide participative opportunities to nurture and sustain what is important to the community. The use of the Ebira Tao

traditionally weaved cloth provides an opportunity for community cultural development (Enrique, and Herrero, (2004). It can reflect the dynamic value systems of individuals united by the same customs, images, collective memory, habits, and experiences. This tradition can be replicated and each generation can pass on something of its experience to the next. This is of particular interest to families that use the production process as a form of social communication and transfer of knowledge.

Bringing people back to generously share their special space and favourite places with visiting friends and relatives assists in healing, awareness raising, and through understanding issues of sustainability associated with some delicate environments. Values and beliefs held by individuals in a community are inextricably linked and shape people's attitudes and the way they act in specific situations. Under scrutiny in these regional communities is how the values, interests, and aspirations of individuals are influenced by their bio-physical environment (space and place) which leads to a sense of community that influences how the community celebrates that which affects the community's well-being that in turn informs the environment in which individuals and groups define their values and beliefs.

Ebira Tao
Okene Weaving Techniques
Spinning is one of the processes often undertaken in many traditional hand woven fabric productions. Okene handcrafted cloth weavers carry out local spinning to obtain the necessary yarns that enable them produce their variety of woven fabrics. As observed by Mukaila (2011), this is the actual process in which the Okene weavers spun manually. Adediran (2015) states that the early weavers were not limited to the natural colour of the spun cotton when they moved, as there were plants available to make vegetable dyes to colour the thread either yellow, brown, black and blue.

There were Professional women who specialized in dyeing of the thread only, while others went into the field of weaving and spinning. Women from Magongo Ogari District did the dyeing mostly. The women of Magongo-Ogari, are not historically Ebira, they do not engage in weaving, but they are very good in the dyeing of cotton thread. One type of dyeing that is historically and presently popular in traditional society is the indigo dyeing. This type of dye produces shades of colours. The Magongo see the shades of indigo colours as blue, black and green colour etc.

Hand-spun threads are usually dyed in indigo blue colour and are still being used. Since the indigo coloured threads have specific important use in certain ceremonial cloths in Ebira culture, they are highly respected in the society. Women in Okene were weaving with hand-spun dyed threads until the second decades of the twentieth century. Around the year 1920, the British agents began exporting yarns of multi-coloured cottons and wools to Nigeria and Okene in particular. Alhaji Ibrahim Atta II the former Ohinoyi (Chief) of Okene had the foresight to realize the value of these yarns and how they could be improved toward the quality and quantity of weaving in Ebira Land. He regarded the cloth weaving as a valuable Ebira talent and used his many wives to demonstrate expert and proficient weaving talents (Ododo, 2001:30).

The Use and Relevance of Ebira-Tao Weaving
Ebira Tao cloth weaving was in existence before 13th century. The first known material used by An'ebira to weave cloth by the 13th century was raw cotton spun yarn which was used as fibre for cloth weaving as reported by Weise, (2013). There were two types of cotton both of which were locally grown. The cotton comprised of the pure white cotton and a brown variation. Other colours

are blue, black, and red, which were obtained by dyeing the white cotton through dipping it into a mixture of already prepared dyes. Today, traditional cloth weaving is one of the major occupations engaged in by Ebira women (Okene). Cloth weaving serves as one of the major sources of revenue generation to about 80% of the women folk in Ebira Tao land.

Ebira-Tao people in particular are predominantly farmers and one of their major cash crops is cotton. Cotton serves as raw material for weaving. This enables a number of women to engage in weaving production. Another vital factor is that, there is a cultural importance attached to Okene weaving by the people. For instance, the cloth is used for burial and for festivals, which are acknowledged by the people. Most elderly persons use the cloth for body covering, and others use them to make easy chairs for relaxation after a day's work. Most importantly, the woven cloth is used as a prayer mat (Yaro and Ebuga, 2013). In recent time, a lot of designs towards modernization of the techniques have been introduced into the art of weaving in Ebira land. The Okene women in particular can now weave different sizes and designs and can inscribe into the woven fabric various forms of writing and symbols.

Several factors have been adduced to have contributed to the development of the cloth weaving culture of the people in recent time. Firstly, hand woven textiles have always been a rich source of one's tradition. The women folk both elderly and the young have been practicing weaving in Okene Town from time immemorial. Secondly, the traditional hand woven textiles of Ebira Tao are said to have rapidly changed in terms of designs, motifs, yarns and processes. Thirdly, local patronage and the traditional disposition of the people towards the use of the woven cloth are seen as contributing factors to the development and growth of Ebira Tao cloth weaving culture. Adeniran (2010:23), Cyril-Egware, and Peters (2016:146) corroborate this point. The need to empower women and the youth economically as a way of generating income to meet immediate basic needs as well as invest on material and equipment were factors that greatly influenced the Ebira Tao cloth weaving culture in recent time.

The Sustainability of the Ebira Tao Textile Technology.
Modernization as well as the accessibility to advanced weaving materials and technologies have greatly enhanced the growth of the textile industry. The ability to aptly bring about new designs that were beautifully made and produced by weavers through the fusion of the old and new processes of designs and productions could be said to have significantly contributed to the sustenance of the cloth weaving industry so far. Changes in taste in textiles, adornment and hairstyle have however, affected and almost substantially altered the traditional dress code of many ethnic groups in Nigeria as peoples' preferences for lighter, brightly coloured machine woven fabrics become more obvious.

Significantly, textiles have relevance in the culture of a people. The major way of improving and sustaining the traditional woven structures and maintaining their degree of observable traits is by its application into contemporary fashion as fashion extensions and accessories rather than completely as fashion wears or attires. The richness and variety of such fashion extensions and accessories would be exciting not only to fashion designers but to everyone who comes in contact with the innovative work. After many years of neglect, a nurtured and well-structured traditional weaving entrepreneurship with the younger generation will contribute to providing an opportunity to achieve the goal of grass-root related development. This will resuscitate, revive and set the traditional textiles on the part to economic recovery as well as bring back the lost glory.

Conclusion

Cloth and dress have been described as a mirror of the culture of the people in any society (Perani and Wolff, 1999: 25). They symbolize the practices of the society, bounded by the same geographical location, sharing the same cultural values. In the cultural context cloth serves basic needs as clothing and shelter (Payne, 1965). The function of cloth and dress has however, been encapsulated within boundless limits by Perani and Wolff (1999) thus:

"Beyond basic role in shelter and protection, cloth and dress have overlapping mediating functions including:

(1) Measurement of self and personal worth;

(2) Indicator of occupation;

(3) Measurement of social value;

(4) Standard of economic value;

(5) Definition and negotiation of political power;

(6) Religious signifier and repository of supernatural powers;

(7) Indicator of culture and change."

There is therefore, the need to produce cloth that would not only be appreciated by the people but replicated to sustaining and satisfying the local consumption and drive towards economic self-reliance and sustainability in the face of the implosion of the textile industry in Nigeria due largely to influx of foreign apparel in a globalized economy or market place.

References

Adediran, A. (2015). Fine and Applied Arts: Lubricant To The Wheel Of National Development. Retrieved from http://globalacademicgroup.com/journals/nard/Adeniyi%20%20Adediran.pdf

Arnold, N. (2001). *Festival Tourism: Recognizing the Challenges; Linking Multiple Pathways between Global Villages of the New Century* in Faulkner, B., Laws, E. & Moscardo, G. (Eds.) *Tourism in the 21st Century; Lessons from experience*. London: Continuum.

Chudi-Duru, C. C. (2017). Exploration of Akwete Weaves Motifs for Adaptation on Printed Textiles for Apparel Production. Zaria: Department of Industrial Design, Ahmadu Bello University.

Coker, O., and Coker, A. (2009) "Cultural Exploration as Alternative Route to National: Insights from Yoruba Verbal Arts," *Kemanusiaan 16:1–11*

Cyril-Egware, P. I., Peters, E. E. (2016). Design and its Application in Ceramics and Textiles: Similarities and Divergences. *International Journal of Innovative Research and Development, 5(8):142-149.* July. Retrieved from http://www.ijird.com/index.php/ijird/article/viewFile/99799/72095

Derrett, R. (2003) Making Sense of How Festivals Demonstrate A Community's Sense of Place. *Event Management, 8; 49–58.*

Deux, K. (2009) *Social Identity*. Retrieved from http://www.utexas.edu/courses/stross/ant393b_files/ARTICLES/identity.pdf

Edensor, T. (2001) Performing Tourism, Staging Tourism; Reproducing Tourist Space and Practice. *Tourist Studies*, 1 (1):59-81.

Enrique, E., and Herrero, J. (2004). *Determinants of Social Integration in the Community: An Exploratory Analysis of Personal, Interpersonal and Situational Variables, Journal of Community and Applied Social Psychology,* 14: 1–15.

Given, L. M. (Ed.) (2008). *The Sage Encyclopedia of Qualitative Research Methods. Volume 1 & 2.* Thousand Oaks, California: Sage Publications Inc.

Jeannotte, M. S. (2008). *Promoting Social Integration*: A Brief Examination of Concepts and Issues. Retrieved from *http://www.un.org/esa/.../social/...social integration/.../Jeannotte Concepts.pdf*

Jeong, S., and Santos, C. A. (2004). Cultural Politics and Contested Place Identity. *Annals of Tourism Research*, 31(3):640-656.

Lade, C., & Jackson, J. (2004) Key Success Factors in Regional Festivals: Some Australian experiences. *Event* Management, 9:1–11.

Ligom, A. A. (2017). An Examination of Cloth Weaving and Its Socio-Economic Impacts in Ushongo Local Government Area of Benue State, Nigeria. Zaria: Department of Industrial Design, Ahmadu Bello University

Maurin, F. (2003) Festivals. *Contemporary Theatre Review*, 13(4):5.

Mukaila, M. (2011). How Okene Women Are Weaving Their Way To The Bank. *Daily Trust Newspaper Online,* June 25. Retrieved from http://www.dailytrust.com.ng/weekly/index.php/features/10624- how-okene-women-are-weaving-their-way-to-the-bank#QQ3BdZJKDxCohuYk.99

Ododo, S. E. (2001). Theatrical aesthetics and functional values of Ekuechi masquerade ensemble of the Ebira people In Nigeria. *African Study Monographs,* 22(1): 1-36, May.

Payne, B. (1965), History of Costume: from Ancient Egypt to 20th Century. New York: Harper & Row.

Perani, J., and Wolff, N.H. (1999), Cloth, Dress and Art patronage in Africa, Berg N. Y. Washington.

Salawu, N. (2014). The Study of Ebira-Tao Cloth Weaving Techniques in Okene and Adavi Local Government of Kogi State Nigeria. Zaria: Department of Fine Arts, Ahmadu Bello University.

Sherry, M. (2008) Identity in L. M., Given. (Ed.) *The Sage Encyclopedia of Qualitative Research Methods. Volume 1 & 2*. Thousand Oaks, California: Sage Publications Inc.

United Nations (2005) *Working Definition of Social Integration*. New York: United Nations Department of Economic and Social Affairs- UNDESA.
Retrieved from   http://www.un.org/esa/socdev/sib/peacedialogue/soc integration.htm

Yaro, O. O., & Ebuga, E. A. (2013). An Assessment of the Development Potentials of Nasarawa State in Nigeria *IOSR Journal of Environmental Science, Toxicology And Food Technology (IOSR-JESTFT), 6(6):1-5. November – December. Retrieved from:* http://www.iosrjournals.org/iosr-jestft/papers/vol6-issue6/A0660105.pdf?id=7730

13.

ARTPRENEURSHIP IN WASTE REPURPOSING: AN EXPERIMENT WITH PLASTIC WASTES FOR PAVING STONES

ADENLE John Oyewole
Department of Creative Arts,
Faculty of Arts,
University of Lagos,
Nigeria
adenlejohn2000@gmail.com

Introduction

Interlocking stones (blocks) are paving stones made from concrete aggregates like granites, stone dust with water and cement (which serves as bond agent). There are specialized plastic mould designs for producing the blocks, which are arranged repeatedly and rhythmically such that the shapes interlock without the aid of mortar during the arrangement on the floor (Adenle, 2007). These paving stones are found everywhere today especially in public places, and highbrow residential areas. People have gone a step further to experiment using locally sourced materials like gravel with soft sand to replace the quarried granite and dust. Exploring the potentials of our waste streams to recycle as substitute entirely for granite and stone dust using plastic waste is the concern of this experiment. Giving redirection to what is otherwise called waste takes creative and innovative efforts of a stable mind.

Kasturi (2012) observes that, "artpreneurship" or art and entrepreneurship "allows us to see something new in the existing material, or creatively adapting existing works". Waste plastics of all sorts pose a great challenge to the socio-economic and health life in Nigeria. Many attempts have been made to reduce the waste stream through recycling for the purpose of domestic usage. Despite this, the products of such still find their way back into waste streams, hence the need for this study that gives innovative redirection to plastic wastes for making paving stones. This study therefore dwells on the choice and tendering of industrial plastic wastes that otherwise serve as environmental pollution and hazard, to repurpose and reuse them in uncommon ways.

Literature Review

Erwin and Haley (1990) state that, "society's expectations related to environmental protection continue to rise. Methods used even a decade ago for disposing of waste are unacceptable today". This gives further impetus to recycling as a means of getting rid of waste since it is accepted to be more environmentally friendly than other methods of waste disposal. Once plastic materials enter the waste stream, they pose great treat to humans, animals and the environment hence recycling is seen as the next option. Maryruth (2011) lends credence to this by identifying areas of hazard from the pre-production of plastic chemical, the manufacturing, consuming to its being discarded. He notes that Plastic materials are "non-renewable, toxic, ending up in the ocean and non-degradable. Some plastics are non-renewable because they are made from crude oil. We have only a limited supply of the resources we need to make plastics.

They are toxic because creating plastics from crude oil requires the use of toxic chemicals that are then washed into our waterways, our soil, and emitted into the air thus causing toxic pollution to land sea and air. Also much of our plastic ends up in the ocean where it is gathered into what is now known as the plastic island in the Pacific. The plastics are also non-degradable because most of them take more than a hundred years to do so. That means resources are locked up in landfills for

centuries, unusable and wasted. If these plastic wastes that are ending up in waste garbage and landfills are properly channelled and recycled however, much resources will be conserved. Sharma (1995) observes that "recycling is increasingly being regarded as the preferable option of disposing waste for the promise it brings of saving resources and energy and reducing pollution".

Recycling is clearly a waste-management strategy, but it can also be seen as one current example of implementing the concept of industrial ecology, whereas in a natural ecosystem there are no wastes but only products (Frosch and Gallopoulos, 1989; McDonough and Braungart, 2002). Industrial ecology and natural ecosystems share the same idea with Conceptual Art that sees products from wastes or worthless things and also has zero tolerance for wastes. Jefferson, Robert, and Edward (2009) and Godwin (2011) reiterate that recycling of plastics is one method for reducing environmental impact and resource depletion. He submits that, "Fundamentally, high levels of recycling, as with reduction in use, reuse and repair or re-manufacturing can allow for a given level of product service with lower material inputs than would otherwise be required."

This infers that reuse or reabsorbing of waste materials that would have otherwise constituted environmental hazards, into permanent aesthetic, utilitarian or environmental work by artists especially sculptors, seeks to work in tandem with the goal of becoming more environmentally friendly to conserve natural resources and protect the environment, which is "Going Green". Engaging waste this way, one would have succeeded in cutting short the usual chain of recycling.

Jefferson et al (2009) further observe that recycling of packaging materials has seen rapid expansion over the last decades in a number of countries; they note that the quantities that are recycled vary geographically according to plastic type and application. Though many of the factors associated with recycling are of social or environmental factors, however for most artists and creative individuals, the motivation to recycle and reduce the plastic wastes come from our desire to protect the environment. This is revealed in the words of Nelson Boateng who said "Working towards a cleaner environment is my heart" (Kwasi and Commentary 2018). Boateng, an entrepreneur from Ghana, produces paving blocks using all kinds of plastics except PVC pipes. The plastic waste material is first shredded to a particular size using a shredding machine, melted and mixed in ratio with sand and red oxide.

Plate I, Laying the recycled plastic-infused blocks. Source: NELPLAT

The 21st century has witnessed a lot of creative ingenuities from pro-active entrepreneurs who keep on researching into how best going green can be achieved. Recent studies in this direction have shown some hope in terms of using plastic-waste in road construction. According to Aparna (2016), "the technology for this was developed by the 'Plastic Man' of India, Prof Rajagopalan Vasudevan, Professor of Chemistry at Thiagarajar College of Engineering, Madurai. Vidhisha (2014) corroborating this point, states that the first road using waste plastics was laid in Kovilpatti village of Tuticorin district in October 2002.

Plate 2, A road made of waste plastic in India, Photo Source: walkabilityasis.org

The methods used in plates 1 and 2 slightly differ, even though both used melted plastics. In Plate 1-sand and red oxide were additional components in which heated plastics served as the bond whereas in Plate 2 heated plastic is mixed with bitumen to achieve the tar. This study provides a different approach to achieve the result. All plastic types (thermoplastics and thermosetting) are worked into the experiment in this study. This is because the study did not undergo heating or melting of plastic but made use of cement as bond agent.

Conceptual Review

Waste has been defined as something that is not or no longer useful and is to be thrown away or disposed of. In the words of Ogwueleka, (2009) "wastes are materials that are not prime products (that is products produced for the market) for which the generator has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose." Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. From the standpoint of this work, wastes are materials lacking direct value to the producers or consumers and so must be disposed of. If wastes are managed properly however, they could turn the tide of a downtrodden economic.

It is common sight in Nigeria today to see heaps / accumulation of festering waste dumps in our urban and commercial cities. All sides of residential apartments, the drains, the highways, corners of major and minor streets, undeveloped plots of land have all become waste dumps for many households. As Peter (2011) puts it, "waste increases in a geometrical progression and collection and disposal is at an arithmetical progression." This infers that generating wastes is an easy and unstoppable phenomenon while disposing the wastes is a challenge. Waste, explains Bashorun is seen not only in the volume of disused materials littering the Nigerian landscape but also as a

symbol of "...our indifference to our wasteful lifestyles...we are a nation that wastes everything; human lives, time, minds, words, energy, natural resources, food, money, population, land, knowledge, culture, tradition, spirituality and more" (Bashorun in Onipede 2018).

Plastic material is any of a wide range of synthetic or semi-synthetic organic solids used in the manufacture of industrial products; it falls among non-degradable categories of wastes resulting from production mistakes in the factory, wastes due to disuse or expiration of products and domestic wastes. Arueyingho and Adenle (2012) affirm that, "plastics are typically polymers of high molecular mass, and may contain other substances to improve performance and or reduce production costs". Plastic materials that allow objects to be cast, pressed, or extruded into a variety of shapes – such as films, fibres, plates, tubes, bottles, boxes and much more are of two types and are called "Thermoplastics and Thermosetting polymers" (Arueyingho 2011).

Arueyingho also notes that thermoplastics do not undergo chemical change in their composition when heated therefore, they can be used and be reused. This is the type commonly scavenged (from dust bins, water ways or streets and landfills), sorted and recycled by industries for domestic uses. Thermosetting on the other hand can only be melted and shaped once, hence its permanence, inconvertible almost non-recycled state. The thrust of this study is hinged on the flexibility provided by the reuse of Thermoplastics and Thermosetting wastes to produce interlocking paving stones.

Theoretical Framework

This study adopts the Theory of Waste Management to expound its objectives. The Waste Management Theory is hinged on the considerations that waste management is to prevent waste causing harm to human health and the environment, and application of waste management leads to conservation of resources (Pongrácz, Phillips and Keiski, 2004). The study fits into class 1, 2 and 3 of the classes of wastes in Table 1 below as propounded by Pongrácz and Pohjola (1997).

Table 1: Classes of waste

Class 1	Non-wanted things, created not intended, or not avoided, with no purpose.
Class 2	Things that were given a finite purpose, thus destined to become useless after fulfilling it.
Class 3	Things with well-defined purpose, but their performance ceased being acceptable due to a flaw in their Structure or State.
Class 4	Things with well-defined purpose, and acceptable performance, but their users failed to use them for their intended purpose.

Source: Pongrácz and Pohjola 1997.

Relating the table above to this study, Class 1 consists of unwanted plastics Pellets/chips and dusts spilling off the production line or deformed plastics. Classes 2 and 3 consist of household plastics such as creams, pomades, water bottles, packaging, domestic buckets, bins, storage plastics, plastic bottles, pots, tubs and trays, plastic film, rigid plastics, crates, pipes, mouldings, plastic foams, such as expanded polystyrene (EPS), flexible plastics, such as strapping and cable sheathing.

The waste plastics would undergo crushing or worked on with machine to produce varying grades (sizes) such as dusts, shaven and ½ inch. These formed the 3 aggregates used in this study, which agrees with one of the Principles of Industrial Ecology. It states that, "Every product should be designed so that it can be used to create other useful products at the end of its life" (Pongrácz, 1997).

Method
The method used was the usual method of casting concrete. Three experiments were made using 3 different aggregates and specified ratios. The ratio of each aggregate was mixed thoroughly with cement and water to achieve mortar; this was poured into moulds already primed with oil and little cement slip. It was allowed to set and removed after twenty four hours.

Materials Substitutes for the Experiment
The materials used for this experimental research are:
- Cement
- Plastic dust
- Shredded Plastic or shaven
- Plastic pellet
- Water
- Plastic mould – mould used for making conventional paving bricks

Plastic dust, shaven and pellet are used in this experiment substitute to granite, sharp sand and stone dust that are conventionally used for paving stones or interlocking blocks.

Plate 3, Plastic Dust (PD) (fine aggregate), Source: John Adenle

It is the Industrial Crumbs or waste that fall during production at the finishing stage, usually dusty, light and often times with small pellets.

Plate 4, Plastic Shaven (PS) (Shredded aggregate), Source: John Adenle

The shaven or shredded derived from cutting of lump of plastic with shredding machine.

Plate 5, Plastic Pellets (PP) (coarse aggregate), Source: John Adenle

Pellets are small grains from bigger lumps of plastic that enable easy melting, usually a little above the size of rice grain.

Composition of materials and outcome
The following ratio was adopted to arrive at the products shown in the table below.

Table 2

	Aggregate Ratio	Cement Ratio	Behaviour/Observations
A	PD 3	2	Easily mixed
B	PS 3	3	Does not mix easily manually when water is added, needs additional efforts.
C	PP 3	3	Does not mix easily manually when water is added, needs additional efforts.

Note: PD =   Plastic Dust,   PS= Plastic Shaven,   PP= Plastic Pellets

Results

Plate 6, Plastic Dust (PD), Source: John Adenle

This is a mixture of cement and plastic dust.

Plate 7, Plastic Shaven (PS), Source: John Adenle

A mixture of cement and plastic shaven.

Plate 3, Plastic Pellets (PD), Source: John Adenle

A mixture of cement and plastic pellet

Conclusion and Recommendations

Generally, the outcome of the three experiments are successful, they have the same outlook, but vary in weight. Even though the cement ratio of A, B, C are equal, the weight of C is the heaviest followed by A and B respectively. The reasons for these are due to the weight of the aggregates, C (plastic pellet) is heavier than "A" (plastic dust) while "A" is heavier than "B" (plastic shaven).

In conclusion, plastic aggregates with cement are also suitable and can be used as substitute for traditional aggregates (granite, stone dust and sand) used for interlocking blocks. If this is encouraged, it will reduce the waste stream of plastics in our environment.

Considering the impact of plastic waste in the environment and its non-biodegradable nature, Government should encourage reusing of plastics through provision of supports and grants for industries, which recycle and reuse wastes in order to drastically reduce plastic pollution. Creative individuals like sculptors should engage in exploring this or other possibilities because using plastics in such way (for interlocking blocks) keeps them from ending up in the landfill. It is also suggested that the 3 products from the experiments would further be subjected to various stress tests in collaboration with relevant engineers.

References

Adenle J.O. (2007) Cost effect of producing Interlocking Tiles with Locally sourced Materials. Presented at 5th Annual national conference on Culture &Creative Arts forum. Federal Abeokuta 6th – 9th November. 2007.

Aparna M. (2016) Roads Made of Plastic Waste in India? Yes! Meet the Professor Who Pioneered the Technique.

Arueyingho G. (2011) Adaptations: Connecting Research works for the Past Ten Years, in "Adaptations" 2011 an exhibition Catalogue of Experimental Body of Works on Wastes by Adenle John.

Arueyingho G. and Adenle J. (2012) Aesthetic recycling as adaptable measure to climate change: a proactive assessment of Adenle's plastic works of art. Conference paper presented at 2012 International Conference and Chinua Achebe Annual Lectures Faculty of Art, University of Nigeria Nsukka, 22nd and 28th, April 2012

Frosch R., Gallopoulos N. (1989) Strategies for manufacturing. Sci. Am. 261, 144–152

Godwin J. I. (2011) New Jobs Industry: Consider Recycling Our Plastic Wastes http://pmnewsnigeria.com

Jefferson H., Robert D., and Edward K. Plastics recycling: challenges and opportunities

Kasturi B. (2012) Do you know what 'artpreneurship' is? Retrieved from http://zingcc.blogspot.com/2012/02/do-you-know-what-artpreneurship-is.html

Kwasi G. A and Commentary (2018) How a Ghanaian entrepreneur Uses Recycled Plastic to Make Cheaper Roads and Building Blocks

McDonough W., Braungart M. (2002) Cradle to cradle: remaking the way we make things New York, NY: North Point Press

Ogwueleka T. C. (2009) Municipal solid waste characteristics and management in Nigeria, http://journals.tums.ac.ir/

Onipede A. (2018) Waste Materials Repurposing and Their Multifarious Ends in the Art Works of Raqib Bashorun and Dil Humphrey Umezulike in Eyo Journal, Department of Creative Arts, University of Lagos Vol. 2 No.2

Peter E. (2011) Tackling waste management in Nigeria. Daily Trust Thursday, 05 May 2011 Recyclingplasticshttp://www.itdg.org/docs/technical_information_service/recycling_plastics.pdf

Pongrácz E. and Pohjola V. (1997) The Conceptual Model of Waste Management Proc. ENTREE'97, November 12-14 1997, Sophia Antipolis, France, Pp. 65-77.

Pongrácz E, Phillips PS & Keiski RL 2004 Evolving the Theory of Waste Management – aste minimization. In: Pongrácz E. (ed.): Proc. Waste Minimization and Implications to w Resources Use Optimization Conference. June 10, 2004, University of Oulu, Finland. Oulu University Press: Oulu, Pp. 61-67.

Sharma S. (1995) Recycling: theory and reality Establishment of a Theoretical Framework and a Case Study of the Wollongong City Council Domestic Waste Recycling Program. A thesis submitted in fulfilment for the requirements of a Masters of Arts Honours Degree in the Department of Geography, The University of Wollongong.

Vidhisha K. (2014) Use of Plastics in Waste Construction. College Park Campus of ASCI, Road number 3, Banjara Hills, Hyderabad, 500 034, Andhra Pradesh, India Retrieved from https://www.thebetterindia.com/43685/plastic-waste-in-road-construction-plastic-man-india-prof-vasudevan

14.

THE ROLE OF PRODUCTION MANAGEMENT AND ITS FUNCTIONS IN THEORY AND PRACTICE OF INDUSTRIAL DESIGN

PALNAM Ijudai Musa
Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
ijudaimusa@yahoo.com

HASHIM Muhammad Bashir
Department of Fine and Applied Arts
Federal College of Education, Kano
bashirdesign@yahoo.com

And

PAUL James Oche
Department of Fine Arts
Faculty of Environmental Studies,
University of Maiduguri
ochenisart@gmail.com

Introduction

The conditions for effective innovation include good cross-functional communication systems and techniques to share and appraise knowledge and experiences. They also include a formalized way of enabling projects to progress from concept to completion such that projects that will not make the grade can be eliminated in a timely fashion. As a part of innovation, industrial design requires the same conditions. It is a mistake to understand industrial design as a discreet element; that is, to only see part of the activity directly undertaken by the specialists. It would be the same as if we considered that the concerns of money in a company belonged only to those people in the finance and accounting office. It is a general managerial responsibility to work to integrate the specialist designers and other requirements of the product. This should be understood as, being sure that there is a good fit with what is proposed by industrial designers and the abilities of the company to make and sell the product. So, on the one hand, there are the concerns of the designers, but on the other hand there are also the concerns of the manufacturers and marketers. Each has a different, but equally, valid reality of needs and circumstance.

Production may be referred to as the process concerned with the conversion inputs of raw materials, machinery, information, and manpower into output, semi-finished and finished goods and services with the help of certain processes such as planning, scheduling and controlling just to mention a few. Guru (2002) asserts that management is the process of exploitation of these factors of production in order to achieve the desired results. Thus, production management is the management by which scientific planning and regulation sets into motion the part of an enterprise to which it has been entrusted the task of actual transformation of input into output.

Industrial design is a process of design applied to products that are to be manufactured through techniques of mass production. All manufactured products are the result of a design process, but

the nature of this process can take many forms. An individual or a large team can conduct it. It also emphasizes intuitive creativity or calculated scientific decision-making. According to Buttle (1997), production management refers to the application of management principles to the production function in a factory. In other words, production management involves application of planning, organizing, directing and controlling the production process.

Since the primary purpose of economic activity is to produce utility for individuals, we count as production during a time period, all activities, which either create utility during the period or which increase ability of the society to create utility in the future. Business firms are important components of the economic system. They are artificial entities created by individuals for the purpose of organizing and facilitating production. The essential characteristics of the business firm is that it purchases factors of production such as land, labour, capital, intermediate goods, and raw material from households and other business firms and transforms these resources into different goods or services, which it sells to its customers. Production management is not independent of marketing, financial and personnel management.

It is observed that one cannot demarcate the beginning and end points of production management in an establishment. The reason is that it is interrelated with many other functional areas of business, marketing, finance and industrial relation policies. Alternately, production management is not independent of marketing, financial and personnel management because it is very difficult to formulate some single appropriate definition of production management. According to Bell, (1994), production management deals with decision-making related to production process so that the resulting goods and services are produced in accordance with the quantitative specifications and demand schedule at minimum cost. The emphasis in this definition is on proper planning and control of production management. It looks from the above definitions that production planning and control are the main characteristics of production management. The organization will be able to achieve its objectives only if production planning and control are exercised properly.

Management becomes essential for directing and unifying group efforts towards a common objective. It integrates various activities to get objectives achieved. Management is the activating agent for getting work done through its personnel. Today, production is done on a large scale basis to cope with increasing demand for goods and services at the national and international level. This has increased the competition in the market. Increasing competition requires efficient and effective handling of men and materials.

Functions of Production Management
The functions that production management performs can be broadly categorized into planning, organizing and controlling. The definitions discussed above clearly show that the concept of production management is related mainly to the organizations engaged in production of goods and services. Earlier these organizations were mostly in the form of one-man shops having insignificant problems of managing the productions. With development and expansion of production organizations in the shape of factories however, more complicated problems like location and lay out, came into existence. This resulted in the development of production management in the area of factory management. In the beginning the main function of production management was to control labour costs, which at that time constituted the major proportion of costs associated with production. With development of factory system towards mechanization and automation however, the indirect labour costs increased tremendously in comparison to direct labour costs, e.g., designing and packing of the products, production and inventory control, plant layout and location, transportation of raw materials and finished products etc. The planning and control of all these

activities required more expertise and special techniques. Functions of production management includes selection of product and design, selection of production process, selecting the right production capacity, production planning, routing, scheduling, production control, quality and cost control, inventory control, and maintenance and replacement of machines.

Design Management

Today design is not simply about aesthetics or making a product easier to use. The traditional role of design in business was on skills associated with the intuitive, visual and sensual ways of working (Cross 1993). Whyte, Salter and Gann (2003) suggest that leading companies recognize that design is an intellectual asset and they invest in extending these capabilities. The role of a designer in a company is growing and those complementary design activities are from marketing, management and market research. This shift is most recognizable in the new product development process, where the role of a designer is most important. Perks, Cooper and Jones (2005) suggest that three distinct roles can be discerned: functional, integration and process leadership, where the last two being far away from traditional scope of any designer's work. Designers more often take actions to manage and lead the development process, along with non-design functional actions. Different roles lead to different management structures and the value of design management to business has been recognize for many years. As Bruce and Bessant (2002) put it: "Good design does not happen by accident, but rather as the result of a managed process". At the same time however, literature provides the view that the term 'design management' presents a significant challenge, as it contains a contradiction between the remits of the disciplines of design and management. Borja de Mozta (2003) stresses that design is based on exploration and risk-taking, whilst management is founded on control and predictability.

Design management is a field of inquiry that uses project management, design, strategy, and supply chain techniques to control a creative process, support a culture of creativity, and build a structure and organization for design. The objective of design management is to develop and maintain an efficient business environment in which an organization can achieve its strategic and mission goals through design. Design management is a comprehensive activity at all levels of business from the discovery phase to the execution phase. Design management is the business side of design. Bell and Lilian (1994) assert that design management encompasses the ongoing processes, business decisions, and strategies that enable innovation and create effectively-designed products, services, communications, environments, and brands that enhance our quality of life and provide organizational success.

The discipline of design management overlaps with marketing management, operations management, and strategic management. Traditionally, design management was seen as limited to the management of design projects, but over time, it evolved to include other aspects of an organization at the functional and strategic level. A more recent debate concerns the integration of design thinking into strategic management as a cross-disciplinary and human-centred approach to management. This paradigm also focuses on a collaborative and iterative style of work, compared to practices associated with the more traditional management model. Design has become a strategic asset in brand equity, differentiation, and product quality for many companies. More and more organizations apply design management to improve design-relevant activities and to better connect design with corporate strategy.

Early contributions to design management show how different design disciplines were coordinated to achieve business objectives at a corporate level, and demonstrate the early understanding of design as a competitive force. In that context, design was merely understood as an aesthetic

function, and the management of design was at the level of project planning. The practice of managing design to achieve a business objective was first documented in 1907.

The Deutscher Werkbund (German Work Federation) was established in Munich by twelve architects and twelve business firms as a state-sponsored effort to better compete with Great Britain and the United States by integrating traditional craft and industrial mass-production techniques. A German designer and architect, Peter Behrens, created the entire corporate identity (logotype, product design, publicity, etc.) of Allgemeine Elektrizitäts Gesellschaft (AEG), and is regarded as the first industrial designer in history. His work for AEG was the first large-scale demonstration of the viability and vitality of the Werkbund's initiatives and objectives and can be considered as first contribution to design management.

In the following years, companies applied the principles of corporate identity and corporate design to increase awareness and recognition by consumers and differentiation from competitors. Olivetti became famous for its attention to design through their corporate design activities. In 1936 Olivetti hired Giovanni Pintori in their publicity department and promoted Marcello Nizzoli from the product design department to develop design in a comprehensive corporate philosophy. In 1956, inspired by the compelling brand character of Olivetti, Thomas Watson, Jr., CEO of IBM, retained American architect and industrial designer Eliot Noyes to develop a corporate-wide IBM Design Program consisting of coherent brand-design strategy together with a design management system to guide and oversee the comprehensive brand identity elements of: products, graphics, exhibits, architecture, interiors and fine art. This seminal effort by Noyes, with his inclusion of Paul Rand and Charles Eames as consultants, is considered to be the first comprehensive corporate design program in America. Up to and during the 1960s, debates in the design community were focused on ergonomics, functionalism, and corporate design, while debates in management addressed just in time, total quality management, and product specification.

Managing Design Methodically
The work of designers in the 1960s was influenced by industry, as the debate on design evolved from an aesthetic function into active cooperation with industry. Designers had to work in a team with engineers and design was perceived as one part of the product development process. In the early years, design management was strongly influenced by system science and the emergence of a design science. Early discussions on design management were strongly influenced by Anglo-Saxon literature, methodological studies in design research and theories in business studies. Design management dealt with two main issues:
•	How to develop corporate systems of planning aims
•	How to solve problems of methodological information processing

Instruments and checklists were developed to structure the processes and decisions of companies for successful corporate development. In this period the main contributors to design management were Michael Farr, Horst Rittel, HfG Ulm, Christopher Alexander, James Pilditch, the London Business School, Peter Gorb, the Design Management Institute, and the Royal Society of Arts. Debates in design disciplines were focusing on design science, design methodology, wicked problems, Ulm methodology, the relationship of design and business, new German design, and semiotic and scenario technique (Wikipedia 2019).

Industrial Design and Innovation
Design is most readily understood in terms of tangible things, for example automobiles, computers, clothes, furniture, restaurants and shops. Most people use the word for both functionality and style.

According to Dumas and Angela (2003), industrial design is therefore, a part of innovation. It makes its most significant contribution in the differentiation of similar products either by making them appear very different through colour and style, or by enhancing them with detail and minor additional features. In more radical innovation where new technology is involved, industrial design usually has a less central role because the novelty is provided by the new functionality. There are occasions where the new technology needs to be made more palatable to consumers and then the role of industrial design is more centre stage. An example of this is in areas of medical technology, where patients need to be re-assured about new machines and procedures. If we return to the major contribution of industrial design, examples include the increasing variety in lap top computers, the increasing number of small consumer electronics for the home where colour and style are becoming the major differentiators. All increase market range and therefore consumer choice.

The Effects of Organization Structure on Design
There are three main structural forms for design, one is where a single function has control, another is where there are separate design functions, usually industrial design and engineering and a third where one of these separate functions dominates the other. A fourth form of structure, though not often seen, is where functions share control of design, for example marketing. The second for separate design functions is often found in industries. This model is often quite comforting to both designers and managers but it is not a model that encourages real innovation. Innovation tends to come out of the separate chimneys. Nevertheless, this form of structure has created some very successful enterprises and should not be entirely dismissed. In the past, when the flaws in this chimney model were first identified, some firms tried an alternative.

For a while Ford tried placing industrial design in the dominant role with the industrial designers or stylists as they are often known in the car industry, developing the initial design with other designers in engineering having to conform to it. The reverse situation is probably more often seen, however, where engineers dominate and the industrial designers are brought in to wrap the engineer's product in some kind of pretty skin that ensures that the whole thing ends up being attractive and user friendly. On balance, making one design group dominant over another unbalances the design reality, and is therefore, unlikely to be a sustainable model for success. It is a structural form that is best avoided, because as problems become evident in initial design, the only recourse is to throw them back over the wall for redesign, which inevitably results in costly delays.

Conclusion
In conclusion, production management has an undoubtedly important role to play in theory and practice of industrial design. Since there is a general move in all industry to flatter, less hierarchical structures and an emphasis on team and cross functional working, the potential to integrate industrial design is quite real. To achieve integration it is essential to consider what we might refer to as a cooperative design structure. In this situation the absolute structure of the company is now less influential because a commonly held design reality spans all functions. Industrial design specialists are respected for their particular capabilities and in turn, these specialists respect the design expertise of general managers.

It is these managers who are hands-on designers of product-market fit. In this design reality, design is not understood as a particular activity undertaken by a particular individual or function. It is rather understood more as a sort of umbrella. Under the centre of the umbrella are the specialized design activities, the functions of industrial design. Still under the umbrella, are the activities of those in marketing and production that are linking needs of manufacturing processes and the

purchasing customers. Holding all this together is the general manager whose task it is to ensure appropriate levels of cooperation among the various specialized functions and the broad fit of product, process and context.

References

Bell, D.E. and Lilian, G.R. (1994), "Value-focused thinking", Sloan Management Review, Vol. 36 No. 1, Pp. 5-9. Retrieved 1 June, 2019.

Buttle, F. (1997), "ISO 9000: Marketing Motivations and Benefits", *International Journal of Quality & Reliability Management,* Vol. 14 No. 9, pp. 936-47. Retrieved 10 July, 2019.

Borja de Mozota, B. (2003). Design Management: Using Design to Build Brand Value and Corporate Innovation, Allworth Press, Canada. Retrieved 20 June, 2019.

Bruce, M. & Bessant, J. R. (2002) Design in Business: Strategic Innovation through Design, Harlow, London and New York, Financial Times/Prentice Hall. Retrieved 16 May, 2019.

Cross, N. (1993). Science and Design Methodology: A Review, Research in Engineering Design, vol. 5, no. 2. Retrieved 19 June, 2019.

Dumas and Angela (2003). Theory and Practice of Industrial Design. http://www.google/theory and practice of industrial design.com/. Retrieved 13 June, 2019.

Guru, D. (2002): Management as a Process. *International Journal of Quality & Reliability Management,* Vol. 14 No. 9, pp. 936-47. Retrieved 12 June, 2019.

Perks, H., Cooper, R. & Jones, C. (2005) Characterizing the role of design in New Product Development: An Empirically Derived Taxonomy, *The Journal of Product Innovation Management,* vol. 22 issue 2. Retrieved 19 July, 2019.

Whyte, J. K. Salter, AJ & Gann, D. M. (2003) Designing to Compete: Lessons from Millennium Product Winners, Design Studies, vol. 24, no. 5. Retrieved 13 June, 2019.

15.
THE DYNAMICS OF VISUAL ARTS IN THE CHANGE AGENDA AND DWINDLING ECONOMY

IZOGIE, Collins Ogieva
Department of Fine and Applied Arts,
Federal College of Education (Technical), Asaba
Delta State, Nigeria
ogieva4real2014@gmail.com

And

NWABUOKU Kennette Dikens
Department of Fine and Applied Arts,
University of Benin, Benin City, Nigeria

Introduction
Over the years, there have been conflicting arguments and contentions about the real subject of art and how it affects life and society. In most cases, it has become a subject of debate in the discursive context. Truly speaking, the concept of art cannot be subject to analytical judgment. This contention surfaced in the 20th century when different writers began to exercise their creative ability and new ways of experimentation in art. Art deals with the use of imagination to express ideas and feelings.

Art as an aspect of mental development also refers to the acquisition of skills and knowledge development. Art focuses on aesthetics and functionality and its qualities are by no means important to humanity. From time immemorial, human needs are catered for with the production of visual art objects that serves human functions. Art is a profitable venture in human life which can be used to redefine the economy of the nation. It can be taken as a medium and long-term market investment for both individual and corporate bodies. Visual arts play a crucial role as an alternative investment in a dwindling economy.

Since lack of jobs and production capacity is a threat to economic growth, investment in the visual arts can be one of the greatest assets in the nation's economy as hundreds of investment and rewarding opportunities abounds. Visual arts create an avenue for individuals to identify investment opportunities in different areas and also establish and manage the enterprise. It is all about innovation, prepares people for gainful employment in both formal and informal sectors of the economy. It prepares and equips the individuals for gainful employment in the world of work thereby making them wealth creators and employers of labour.

Concept of Arts
Art means different things to different people at different times. All through the ages, art as a subject has gone through several developmental stages. Each stage depicting the very purpose for which such art was created. This is why different authors, scholars and writers have attempted to define the subject matter in their own way. Sometimes, defining the subject has conflict of interest and controversy as to what art actually is or is not. This controversy came to the front burner since the 20th century when people began to exercise their creative ability and new ways of experimentation in art. This creative ability and new ways of experimentation, according to Egonwa (2011) brought about several definitions and redefinitions of art that have made it almost a tradition to start books on art criticisms or art history with copious devotedness to definitions.

For proper understanding of the entire literature, it has become imperative therefore to examine few definitions of art, visual arts, scope of visual arts, and how it affects the nation's economy positively. Egonwa (2011) affirms that, art is the result of the manipulative skill applied by man, usually a gifted person, to express an idea in a chosen medium. Uzoagba, (2008) defines art as a way of becoming a creative person, and that art is an aspect of mental development which is imaginative, creative and aesthetic. Hornby, (2005), sees art as the use of the imagination to express ideas, or feelings, particularly in painting, drawing or sculpture.

Art as a subject covers all aspect of human activities, ranging from communication, architecture, medicine, fashion, entertainment, theatre and engineering. All the definitions of art are directed towards one goal. In other word, art refers to the acquisition of skills to perform a particular task. An artist is a creative person who uses his skill to express artistic creativity. Art deals with the mental development of an individual. Creativity is the central point that connects the various definitions of art. From all indication, it is strongly believed that art focuses on aesthetics and functionality. It therefore means that for an object to be classified as beautiful, it must appeal to or satisfy our sense of emotion, and its qualities are by no means vital to humanity. The most challenging aspect in the definition of art lies in the fact that art involves the fashioning of object to accomplish human needs. Egonwa, (2011) asserts that visual arts have their own language like other subjects/disciplines. He expresses further that any statement made by the artist outside the accepted tenets of the basic vocabulary of visual arts may not be the artist intended expression. Interestingly, art is a profitable venture to humanity while trying to redefine the economy of the nation. It can be taken as a medium and long-term market investment for both individual and corporate bodies.

Barnes (2008) affirms that the word 'art' can refer to visual arts which includes sculpture, architecture, photography, decorative arts, crafts and other visual works that combine materials and form. Uzoagba (2008) asserts that visual arts designate those arts addressed primarily to the sense of vision. They include both fine and applied arts. From the above discussion, visual arts can be classified into fine art and applied or industrial art. While fine arts include painting, sculpture and architecture, applied arts cover such areas as graphics, textile technology, ceramics and metal works.

Each of these specialized areas is further divided into other units. Areas that are not considered in this classification but are integral part of works of arts include basketry, leather works, embroidery, blacksmithing, knitting, printing etc. When these are properly and carefully exploited and harnessed, they make the individuals wealth creators thereby contributing to the Gross Domestic Product (GDP) of the nation's economy. Visual arts as a career helps to prepare and equip individuals, irrespective of sex, age, race and colour.

Change Agenda and Dwindling Economy
The overdependence on the proceeds of the nation's crude oil as revenue generation by the Federal Government has brought misfortune to the entire citizens. The resultant effect is that, when there is a fall in the oil price, it drastically affects the value of our local currency-the Naira. In order to remain relevant and resist the global uncertainty and create a viable and stable economy in this era of globalization, efforts should be made to embrace other sectors of the economy such as Visual Arts (Arts and culture). These include textile technology, commercial art, industrial design, graphic art, interior decoration, furniture design and publishing, photography, sculpture and painting. Other areas of investment opportunities include crafts related careers such as leather work, bead making, basketry, casting, metal work, knitting, calabash decoration, weaving, blacksmithing etc. As

a consuming nation, Nigeria is paying the supreme price for not being able to direct her energy. This brought about the dwindling economic growth and the constant pressure on our currency exchange rate. Since the inception of President Muhammadu Buhari's administration, several discussions on the need to diversify our economy took center stage, with several conclusions and suggestions geared towards adopting the "change agenda".

After independence in 1960, Nigeria had a solid and robust economy coupled with the industries and companies that produced for our local consumption. The nation's economy was stabilized by the manufacturing sectors. These gave rise to employment opportunities while export and agriculture served as sources of foreign exchange earnings for Nigeria. While jubilating in this flamboyant living, Nigeria was trapped with over-dependence on oil as a result of oil boom in the 70s. The undue concentration on oil boom and the consequent neglect of the manufacturing companies, export and agriculture have contributed in no small measure to the present economic meltdown.

Industrialists, political experts and economic analysts have suggested and concluded that for Nigeria to become economically vibrant and come out of the web of a dwindling economy, she must be a producing nation rather than become a consuming nation. As the giant of Africa, Nigeria must have the spirit of self-sufficiency. Remember that all the machinery used in industries and companies are products of the art. Having subjected to the products of laboratory experimentation and analysis, the finished products and packaging are designed by the artist before sending them to the market place through a channel of visual communication (graphic art).

The industries and companies that create employment opportunities for economic growth depend on visual arts. Visual arts must be given priority attention, and skills acquisition centres must be established. Dead and abandoned textile companies must be revived to cater for the unemployed graduates thereby checking the problem of importation of textiles. Visual art is a tool for facilitating science and technology for national development. In this era when the world is driven by science and technology, visual art has become indispensable. Nigeria is a country that is heavily certificated; therefore, emphases should be directed toward the exploitation and exploration of skills resident in the individuals for the development of the economy. Nigeria must be sincere enough to go back to the drawing board and embrace vocation focused on visual arts. It is only then that Nigeria will experience the taste of the change agenda Slogan being orchestrated by the present administration of President Muhammadu Buhari, "change begins with me".

Investment Opportunities in Visual Arts
All through the ages, visual art has been seen as a product of aesthetic values and appreciation, but today, it has metamorphosed into an investment for profit making at both short and medium term for economic sustainability. Today's world is currently facing unemployment crisis. As a result of this unpleasant situation, people have been thrown into debilitating depression, hopelessness and frustration. However, in order to avoid the trauma caused by unemployment, there is need for individuals to look inward and think of other alternative. Interestingly, the scarcity of job is an opportunity for them to maximize their potentials and create their own jobs by acquiring entrepreneurial skills in visual arts which can help bring their vision or dream to life. As far as it can be ascertained, visual arts play a crucial role as an alternative investment in a dwindling economy. Investment in the visual arts can be one of the greatest assets in the nation's economy.

Hundreds of investment and rewarding opportunities abound in the visual arts. Visual arts create an avenue for individuals to identify investment opportunities in different areas and also establish

and manage the enterprise. It is all about innovation that prepares people for gainful employment in both formal and informal sectors of the economy. Visual arts prepare and equip the individuals for gainful employment in the world of work thereby making them wealth creator and employers of labour. This assertion is further supported by Uzoagba (2008) which states that numerous careers or opportunities for industrious youth are opening up and the financial remunerations are attractive to behold. These opportunities, according to Uzoagba are in such areas as textile technology, commercial art, industrial design, graphic art, interior decoration, furniture design and publishing. Other areas of investment opportunities outside the scope of Uzoagba include photography, sculpture and painting. Others include crafts related careers such as leather work, bead making, basketry, casting, metal work, knitting, calabash decoration, weaving, blacksmithing etc.

Visual arts have the potentials of improving the living standards of the people and also help to achieve sustainable economic development. It has become necessary therefore that graduates of Colleges of Education, Polytechnics and Universities who wish to be trained for a specified period in other to acquire visual arts skill and knowledge development can take advantage of this opportunity. In this way, the act of joblessness and social vices such as corruption, insecurity, terrorism, prostitution etc. would be reduced to the barest minimum.

Economic Empowerment in a Dwindling Economy
Unemployment has become a topical debate in the nation's discursive context and a threat to the nation's economy. Visual arts can serve as catalyst for the development strategy that is rooted on wealth creation, poverty reduction and employment generation. Skill acquisition and knowledge development are embedded in visual arts. Visual arts lead to skill acquisition and entrepreneurial development. If these skills resident in the individuals are well harnessed, it can produce job creators that will become self-employed and also employ others who will become productive and become useful to themselves and to the society.

Ulisan (2012) affirms that vocational education is charged with the responsibility of training and acquisition of expertise, skills and knowledge that are creative in nature. Brickman (2009) asserted that vocational education is an instruction in skill necessary for people who are preparing to enter the labour force or who need training or retraining in the technology of their occupation. Ebisine (2012) opines that it is worrisome to have so many youth who are capable of contributing towards national growth and development but lack both general and specific skills for employment. These skills for employment are embedded in the visual arts.

Visual art is part and parcel of vocational education in which specific skills and knowledge development are acquired by individuals. It creates an avenue for greater number of youth and adults to be gainfully employed in different art professions such as photography, textile and fashion, graphics and advertising, furniture design, production and sales of graphic items blacksmithing, weaving, knitting, jewelleries, cane work etc. Intending youth and adults stand to benefit from visual arts career, having acquired the necessary education and training. Visual arts training require several innovative and entrepreneurial skills capable of engaging the real life investors and market delivery.

According to the National Policy on Education (2004), one of the goals of the education is the acquisition of appropriate skills and development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of the society. Accordingly, the preparatory aspect of pre-vocational training offered to students at the

junior secondary level is to expose students for career awareness by exploring usable options in the world of work, and to enable the youths to have an intelligent understanding of the increasing complexity of technology. The goals of vocational education shall be to provide trained manpower in the applied sciences, technology and business particularly in art and craft, advanced craft at technical levels; give training and impart the necessary skills to individuals who shall be self-reliant economically. Recognizing that vocational education is an integral part of technological development, a greater portion of education expenditure shall continue to be devoted to vocational education at federal and states levels.

As contained in the Economic Transformation Blueprint of 2009, the vision and driving force of the federal government is to attain economic growth by 2020. It was the former president of the Federal Republic of Nigeria, late Musa Yar-adua that gave birth to the strategic vision 20:20. It was intended that by 2020, Nigeria will have a very strong, diversified and sustainable economy that is capable of exploiting and harnessing its natural resources for quality standard of living of her citizens. Based on the nation's remarkable potentials, Nigeria would become one of the world's twenty largest economies by 2020. Obiajulu (2011) asserted that the visioning follows from Goldman Sachs's prediction that Nigeria is amongst the eleven countries that have the potentials for attaining global competitiveness in 2020 based on the economic and demographic settings and the foundation for reforms already laid. This laudable vision covers all sectors of Nigeria economy to include small and medium scale enterprise, Agriculture and Food Security, Information and Communication Technology, Rural-Urban development, Business environment and competitiveness etc. All these geared towards visual arts. As attractive as this laudable vision, visual arts, when properly harnessed remains a visible engine for growing the economy to achieve the vision.

As part of effort of the federal government to ensure speedy and accelerated economic delivery and national development, the federal government established the National Council for Arts and Culture established by Decree No. 3 of 1975 and amended by Decree No. 5 of 1987. As an organ of the federal government, National Council for Arts and Culture is charged with the responsibility of coordination, development and promotion of arts and culture of Nigeria and instrument for national unity and integration as well as serve as catalyst for sustainable growth and development of the nation's economy. This robust initiative for Arts and Culture taken by the federal government demonstrates her readiness and recognition of the tremendous role of visual arts in national development and for the achievement of global competitiveness.

Conclusion
Nigeria is a nation with a dwindling economy. In this era of technological advancement, when the entire world has become a global village, no nation can survive completely without paying attention to skill acquisition and knowledge development. Visual arts remain a vital engine for driving the economy towards emerging global market. Visual arts cannot be separated from technology. It is the platform upon which technology thrives. Therefore, visual arts provide the education and training for the individuals to acquire intellectual knowledge of the complexity of a global business and manpower for content development.

Recommendations
1. The three-tiers of government should develop the political will to be consistent in the implementation of her policies that promote Visual Arts.
2. The Nigerian artists should be encouraged, trained and re-trained to meet global standard and competitiveness.

3. There should be grass root sensitization of the vital role of Visual Arts in national development.
4. The Federal Government should introduce research fund to support or assist professional artists who may wish to do advanced research capable of promoting the socio-economic well-being of the citizens.

References

Barnes, B. (2008). Art. Microsoft @ Encarta 2009. Redmond WA: Microsoft Corporation.

Brickman, W. W. (2009). Vocational Education. Microsoft Encarta 2009 [DVD]. Redmond, W.A. Microsoft Corporation.

Ebisine, S. S. (2012). Vocational Education and Employment in Nigeria. Journal of Vocational Education. Vol. 2. No.2. P.11.

Economic Transformation Blueprint, 2009.

Egonwa, S. D. (2011). Nigerian Art: Introductory Notes. Ibadan. Ababa Press.

Hornby, A. S. (2005). Oxford Advanced Learners Dictionary. England. Oxford University Press.

National Policy on Education (2004). 4th edition. Lagos: NERDC Press.

Obiajulu, A. N. (2011). Importance of Science and Technology Education in the Attainment of Science, Technology and Innovation of the Nigerian Vision2020. Nigeria Journal of General Studies. Vol. 2. No. 1 P. 209 210.

Ulisan, E. (2012). Entrepreneurial Development in Nigeria: The Role of Business Education. Journal of Vocational Education. Vol. 2. No.2. P.182.

Uzoagba, I. N. (2008). Understanding Art in General Education. Onitsha. African-First Publishers

16.
CERAMIC STUDIO PRACTICE: A SKILL NECESSARY FOR ENTREPRENEURSHIP DEVELOPMENT IN NIGERIA.

SATSI Stephanie Gyenom
Department of Visual and Creative Arts
Faculty of Arts
Federal University of Lafia
s.satsi@yahoo.com

Introduction
Nigeria's poverty rate since 1980 to date suggests that the more Nigeria earns from oil the larger the population of poor citizens. According to World Bank (2019), Nigeria remains a country with high levels of poverty. The last official estimate in 2009 was that 46% of Nigerians live below the national poverty line of $1.90 per person per day. In 2017, an estimated value of 49.1 percent of Nigeria's population lived below that poverty line. Ezekwesili (2013) describes Nigeria as paradox of the kind of wealth that breeds penury. Entrepreneurship is one of the keys to getting out of this economic and development quagmire as it contributes to the economic and social development through creation of employment opportunities. Entrepreneurs are significant because they have important effect on world economy (Wickham, 2004). Entrepreneurship in Nigeria needs attention from different sectors to help in every angle of its operation as it is one of the contributors of economic and social development.

Following the oil price collapse in 2014-2016, the gross domestic product (GDP) growth rate dropped to 2.7% in 2015 from 6.3% in 2014. Oil price volatility continues to influence Nigeria's growth performance in the negative. There is therefore a need to diversify the economy. Despite expansion in other sectors, especially the agricultural sector, Agricultural growth remains below potential due to continued insurgency in the Northeast and on-going farmer-herdsmen conflict. Job creation remains weak and insufficient to absorb the fast-growing labour force, resulting in high rate of unemployment (23% in 2018), with another 20% of the labour force under employed (World Bank 2019). Since 2015, economic growth remains muted. Growth averaged 1.9 % in 2018 and remained stable at 2% in the first half of 2019. Growth in 2019 was primarily driven by services, particularly telecoms. This is an indication that there is still more to be done in other sectors if the country is to enjoy economic growth. One of such ways to improve the economy is to empower the youths with skills that make entrepreneurs out them. This will get them self-employed and in the long run they can be employers too.

Brief History of Entrepreneurship in Nigeria
History very often has a direct impact on what a nation is facing at present. Entrepreneurship in Nigeria today is not what it used to be. Majority of Nigerians used to be entrepreneurs. Before the colonization era, a lot of Nigerians were majorly involved in trading. In fact, the wealthiest at the time were the traders. Even before money was generally accepted as the legal tender, people exchanged what they had in surplus for what they did not have in a trade by batter system. Nigerians were a people with a business mindset who exhibited high moral standard when doing business. The colonial era, brought the death of the entrepreneurship spirit. The colonial masters brought their goods and made Nigerians their middlemen. Then came the formal system of education and the companies established by the colonial masters. A lot of young Nigerians were employed by these companies. This formal education trained Nigerians to join the labour force and

not to be entrepreneurs. The entrepreneurial mindset began to fade away. Today we have so many trained graduates but insufficient companies to absorb them all. This is the one of the reasons why we have a high unemployment rate within the country.

Several scholarly studies have shown that most developing countries are faced with this problem of unemployment as a result of graduates being dependent on government instead of being employers of labour. The solution to this problem is to go back to entrepreneurship and develop strategies for job and wealth creation. It is high time that higher institutions stop churning out graduates who will keep waiting on government to provide jobs for them.

Entrepreneurship in Ceramics
Entrepreneurship is widely understood as the process of starting and owning a business that provides goods or services to people in exchange for money. A person who has created and owns a business is known as an entrepreneur. Entrepreneurship is more than just starting a business. It is a mindset, a way of thinking and acting. Entrepreneurship in this modern age involves thinking of new ways to solve problems and adding value to existing businesses. An entrepreneurial spirit is said to be characterized by innovation and risk-taking.

According to Baron and Henry (2010) entrepreneurs not only identify, but also create opportunities, because their actions produce effects, which in turn, produce opportunities that did not previously exist. Amsami (2014) states thus, whether visual artists can undertake entrepreneurship is underscored by Fasua's (2006) opinion which holds that a person can be qualified to be an entrepreneur if the person has the willingness to seek out investment opportunities in an environment, and be able to establish and run an enterprise successfully. Going by his opinion, ceramists can be entrepreneurs if they are willing and seek investment opportunities, possess required professional skills to establish and run ceramic enterprises. It is rather unfortunate that most ceramic graduate abandon their training upon graduation, they go into banking and other fields because there are very few ceramic industries to absorb them. Another reason is the lack of entrepreneurial mind-set even though they have the required skill to set up private studios and be self-employed and possibly become employers of labour.

In developed economies, entrepreneurship has been brought to the front burners of their national development at the critical phase of their respective developments. This too can be replicated in Nigeria by harnessing ceramic studio practice for development. Harbinson (1973), states that any country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else. This is because human beings are active agents who accumulate capital, explore and exploit materials resources build social, economic and political organizations and carry forward national development.

Nigeria has a high potential of becoming a great entrepreneurial nation in the 21st millennium if only it will empower its youth to be entrepreneurs in the ceramic industry. According to Muyideen (2018) pottery activities were the 2nd largest contributors to the Nigerian economy after agriculture in the 1960's. Clay which is the primary raw material of the ceramic industry is readily available in almost all localities in Nigeria. It is relatively cheap and easy to work with. Clay is widely used and finds application in various areas like automobile, electrical engineering, building, dentistry and orthopaedic medicine etc. The federal government in recent times have made commendable effort to diversify the economy and reducing unemployment by developing the agricultural sector, as commendable as it may be, there are other areas like ceramics which has not been given adequate

attention even though it has the potential of reducing unemployment too as it is a labour intensive area.

Clay is extensively used today to produce objects of utility. Gukas (2012) affirms that ceramics contribute significantly to the providing solution to the socioeconomic needs of families and communities because clay products are made to serve a wide range of domestic and industrial needs like cooking, storage, decoration, construction, etc. The ceramic industry is versatile and can exist on its own but it also has a significant influence on other industries that rely on its products for successful operation.

Through the development of the ceramic studios and industries, our dependence on a few sectors for economic development will be history. The identification, mining and processing of indigenous clay could be a possible alternative for increased revenue generation for the country. As rightly observed by Manzuche (2017), the utilization of local ceramic raw materials will certainly bring about promotion of indigenous man power development which will pave way and cause a decline on dependence on developed economies of the world in terms of trade, finance and technology.

Ceramic Studio
A ceramic studio is the work room where ceramic activities take place. There are many private ceramic studios where ceramics are produced examples include Maraba pottery in Kaduna, Dajo pottery in Markudi, Buhari pottery and Ushafa pottery both at the Federal Capital Territory, Heritage ceramics established in Lagos etc. There are also higher institutions like Ahmadu Bello University, Zaria, University of Maiduguri, Federal University of Technology, Akure, and Abubakar Tafawa Balewa University, Bauchi, Federal University of Lafia etc. within Nigeria where Ceramic art and design are specialized option within their applied art/industrial design programme. These institutions train students in ceramic art/design and graduate professionals. Traditional pottery inspired the formal training in these higher institutions. According to Kasim and Adelabu (2013), school-based training for contemporary ceramics kicked off in 1953 at Zaria Art School (now Ahmadu Bello University, Zaria) following an inspiration of the pottery training initiative anchored by Michael Cardew at Ladi Kwali Pottery Centre in 1950.

Other tertiary institutions took a leaf from it and began to establish ceramics as course of studies. With each passing year many more students enrol into higher institution to study ceramics which means that every year, the numbers of graduates are increasing. A critical look at ceramics shows that it is labour intensive, with many levels of operations that requires skill, creativity, patience, time, money which are akin to entrepreneurship. Each level of production requires different skills from clay preparation, to shaping, to packaging. This is a pointer to the varying job opportunities that ceramics can induce.

Limitations of Ceramic Studio Practice
There are limitations as to why ceramic studios are not thriving within Nigeria. Poor infrastructural facilities, epileptic power supply, poor road network and inadequate water supply, lack of funds and equipment have devastating effects on studio practice. Related to these are environmental factors like the incessant cases of kidnapping and the insurgence of ''Boko Haram'' sect, which create unhealthy and insecure environment for teaching and production of ceramics. Multiple taxation and levies in different forms at federal, state and local government levels constitute militating forces for ceramic entrepreneurs in the private sector.

Johnson (2014), stressed that the need for entrepreneurship development in Nigeria has never been so high in the history of the country. He highlighted lack of capital, lack of quality education,

lack of infrastructure, unstable economy, inconsistent government policies, lack of entrepreneurial mindset etc. as some of the problems bedevilling entrepreneurship. With specific reference to the ceramic studio, the following are reasons why studio practice is not necessarily birthing entrepreneurs in the ceramic industry.

Poor Education

By definition, education is an organized process of learning where experience and excellence are attained. It is a process of also gaining moral, physiological, mental and moral development whether it is in a formal or informal environment. When ceramic students are poorly equipped educationally, it will reflect negatively on their studio practice. Poor quality teachers/students, lack of commitment of some teachers/students, non-improvement in the educational curriculum, misconceived educational policies are some reasons why ceramic education seems to be downgraded in the nation's educational system.

According to Layiwola (2018), from about the 1980's, it appears that art is no longer given its proper place in Nigeria, as it is not adequately taught in many primary and post-primary schools. Although art is usually in the curriculum, art teachers are either too few or they are often diverted to teach other courses. This has not only succeeded in destroying a vital aspect of education for our young people, but has also truncated the creative ability, vision and aspiration of generations of Nigerians who have passed through the Nigerian educational system in the past 30 years without art as an effective part of their curriculum.

The creative instinct that art hatches at the formative stage of people goes a long way in fertilising their development in later years. Sometimes the way art/ designs courses are taught without business or entrepreneurial component gave birth to graduates who cannot survive as entrepreneurs. It is imperative that entrepreneurship be included in educational curriculum so that ceramic graduates can now have that wherewithal to survive the business world having acquired both professional and entrepreneurial skills during their training.

Equipment/Facilities Availability

Establishing an art school or ceramic studios requires a whole lot of equipment and facilities. It is a capital intensive project which requires funding. Some equipment like throwing wheels and kilns are expensive. Even though there are locally fabricated ones, there is still much to be desired in terms of efficiency. This poses a challenge to anybody who wants to set up a studio. According to Layiwola (2018), there are very poor facilities and equipment for teaching art in almost all art schools in Nigeria, there are no technical staff for studio operations or basic furniture in many art schools. What we have is either nonfunctional or obsolete, and even if we have the equipment there is the challenge of powering them. A perfect example is the electric kiln; epileptic power supply hampers the use of electric kilns within Nigeria.

Lack of Capital and Difficulty in Securing Loans from Financial Institutions

There are thousands of young Nigerians with wonderful skills and ideas that could be turned into avenues for entrepreneurial development. However, most of them lack the capital to make their ideas into reality. Lack of capital is the number one reason why the development of ceramic entrepreneurship has not improved over the years. Setting up ceramic studio is capital intensive even though the raw materials are abundant in nature. Raising such capital as an individual is not easy and securing loans from financial institutions is difficult too. The reason for this is that the banks and financial institution feel it is a huge risk lending money to them. Financial institutions are not sure if entrepreneurs will be able to pay back the loan. Another major reason why securing a

loan is so difficult is the requirements needed for securing these loans. Most of the financial institutions demand huge collateral and high-interest rate that small business owners or start-ups cannot afford. This discourages young Nigerian graduates and kills many promising ideas.

Economic Instability

The state of the Nigerian economy is also a major challenge for emerging ceramic entrepreneurs in Nigeria. The state of a country and its economy plays a significant impact on the level of entrepreneurship in any country. The socio-economic problems and the unstable economy of Nigeria have killed a lot of businesses in the last couple of years. The inconsistent government policies only help in discouraging entrepreneurs. If the borders were to be closed on foreign ceramics, an increasing number of local ceramist will then see the need to become entrepreneurs.

High Risk Involved in Starting a New Business.

Many are afraid of the risks and give up the idea to start their own business. According to Abiola (2013), the International Finance Corporation (IFC) reported in 2002 that only 2 out of every 10 newly established businesses survive up to the fifth year in Nigeria. International Finance Corporation (IFC) reported in 2002 that only 2 out of every 10 newly established businesses survive up to the fifth year in Nigeria. However, it is important to understand that a business and risk go hand in hand. There is a price to pay for growth and development. There is no gain without pain therefore those who want to start up ceramic studios should bear in mind that there are risk involved but that should not stop them from pursuing their goals. Every entrepreneur should bear in mind that the path to success, failure is often encountered.

Lack of Entrepreneurial Mindset

The mentality instilled in us is from the era of colonialism. The colonial era influenced the mindset of many Nigerians. As highlighted earlier, most people were taught how to be civil servants or how to work for other people and not to be entrepreneurs. An entrepreneurial mindset calls for patience and contentment and risk taking. Many new business owners and young entrepreneurs are looking to make money quickly forgetting that it will take some time for a ceramic studio to grow and start getting returns from investment. A lot of young graduates would rather work for other people or venture into other illegal things in search of quick money.

Ceramics Entrepreneurship Development and the Future of Nigeria.

1. Entrepreneurship will promote Nigeria's economic development. The role entrepreneurship development has to play in the economic development of Nigeria cannot be over emphasized. The wide application of ceramics in various aspects of life makes it clear that it is a gold mine waiting to be harnessed.

2. Ceramic studio practice can create employment opportunities and help to reduce the level of unemployment in the country. Entrepreneurship creates new opportunities of employment for many unemployed Nigerians. Programs like YouWin (youth enterprise with innovation in Nigeria), TraderMoney and many others are being laid out to encourage and facilitate development of entrepreneurship in Nigeria. In most developed countries, the existence of Science Mathematics and Engineering (SME's) has provided more jobs for their citizens. And so, if entrepreneurship continues to develop in Nigeria, more SME's will arise and in turn reduce unemployment in Nigeria.

3. Development of entrepreneurship will also improve the standard of living of Nigerians. When more jobs are created and these jobs generate income, it is only natural that there will be improved standard of living.

Recommendations

1. Entrepreneurship courses should become unlimited in all universities in Nigeria. It should be incorporated into general studies course content across the levels of undergraduate degree programmes.

2. Policy makers should be experts whose education and experience are both broad and deep in basic political, economic trends. They should possess the requisite skills for identifying and exploiting opportunities for entrepreneurial development.

3. Government should also assist Universities especially those that are involved in running entrepreneurship degree programme in the areas of acquiring tools, equipment and workshops.

4. Introducing early business and vocational education training right from the primary school through the secondary school to the tertiary would expose the youths to productive and useful activities that will lead to increase in national productivity, that in turn will enhance development efforts of the government, create employment and accelerated the nation economic growth.

Conclusion

Ceramics entrepreneurship will help reduce the problem of high unemployment rate, high level of poverty and slow economic growth rate will be cushioned. Ceramic studio practice is one key area that will induce the growth and development much needed in the country. Both the government and the institutions of learning have a role to play in seeing that ceramic studios function optimally. Basic amenities like power and water should be made available by the government. While institutions of learning should ensure that they produce graduates who are skilful.

References

Abiola, B. (2011).http://eprints.covenantuniversity.edu.ng/693/2/Phd%20final%20%20ab_iola.doc.
        Retrieved: 22nd August, 2019.

Amsami, B. U. (2014). Nigerian Visual Artists and Entrepreneurship: Challenges and Prospects *Mgbakoigba: Journal Of African Studies.*

Baron R. A. & Henry, R. A. (2010). How entrepreneurs acquire the capacity to excel: Insights from research on expert performance. *Strategic Entrepreneurship Journal. Vol 4, 49-65.*

Ezekwesili O. (2013). *The Wealth and poverty of a Nation, who shall restore the Dignity of Nigeria?* Nsukka: University of Nigeria, I press Ltd.

Kashim I. B. and Adelabu O. S.(2013) Assessment of Selected Ceramics Entrepreneurs and their Impacts on Ceramic Education in Nigeria international *Journal of Education and Research Vol. 1 No. 5 May 2013*

Johnson O. (2017). https://www.legit.ng/1125968-entrepreneurship-development-nigeria-problems-prospect.html

Kashim I. B. and Adelabu O. S. (2013). Assessment of Selected Ceramics Entrepreneurs and their Impacts on Ceramic Education in Nigeria international *Journal of Education and Research Vol. 1*

Manzuche, S. M. A. (2017). Promoting technological and economic developments by exploration of locally available solid mineral resources, *Journal of ceramics and environmental design university of Port Harcourt, Nigeria.*

Nnadi C. (2014) *Entrepreneurship Development and its Impact on Small Scale Business Enterprises in Developing Countries: A Nigerian Experience.* Entrepreneur Organization Management 3:119. doi: 10.4172/2169-026X.1000119

Nicholson-Herbert S, Mkhize S, Schroder A (2004) T*urning Managers into Leaders, A South African Perspective on Corporative Entrepreneurship* Esade Mba Business Review.

Ogunleye G. A. (2000) *Small and Medium Enterprises as Foundation for Rapid Economic Development in Nigeria Abuja*: NDIC QUATERLY.

https://www.vanguardngr.com/2019/01/ti-anti-corruption-ranking-nigeria-moves-to-144th-from-148th/ retrieved 6th September 2019

Wickham P. A. (2004) *Strategic Entrepreneurship (4th Edition) 4th Edition Financial Times* Prentice Hall Upper Saddle River, New Jersey, United States

17.
SELF CONCEPT AND EMOTIONAL ELEMENTS IN PRODUCT BRANDING: A CASE OF APPLE

HARUNA Naomi Andrew
Department of Industrial Design
Faculty of Environmental Studies,
University of Maiduguri
naomiaharuna@gmail.com

And

SYLVA Christine
Coventry University
Business School
United Kingdom
cheans@gmail.com

Introduction
Understanding consumers brand relationship has become increasingly popular as a theoretical lens for understanding consumer behaviour (Aaker, 1997; Fournier, 1998). Consumers are known to form strong relationships with those products and services that have values and personality associations that are congruent with their self-concept (Sirgy, 1982). In this way, brand relationships can be viewed as expressions of consumer's identities (Escalas and Bettman, 2005). In a recent evaluation, studies have demonstrated that strong consumer-brand relationships enhances consumers' brand loyalty, durability of brands and consumers' willingness to pay a premium price. To identify how to develop strong brand relationships, scholarly literature on branding has emphasized on the emotional elements. Prior research, have recognized that emotional elements form central goals in consumer consumption experiences (Hirschman and Holbrook, 1982).

More recently, scholars have paid greater attention to these emotional elements, such as feelings of connection with a brand (self-concept) (Fournier, 1998); perceptions of closeness of the self to a brand (emotional attachment) (Fournier, 1998); and feelings of love for a brand (brand love) (Carroll and Ahuvia, 2006). Thomson et al (2005) stated that emotional elements are crucial in increasing relationship quality in that consumers who are emotionally attached to a brand exhibit greater commitment to it. In addition, consumers' strong emotions such as love towards a brand promote long-term relationship with that brand. In particular, consumers are more devoted to brands with which they feel commonalities and brands that express important aspects of their identity (Fournier, 1998). Research carried out by Malar et al (2011) has recognized that consumer purchases are somewhat driven by a desire to construct self-concepts and communicate them through branded products. As a result they tend to feel more loyal to what they feel connected with, attached to, and love (Sirgy, 1982). Therefore, having strong consumer-brand relationships creates more sustainable brands, as envisioned through increased financial value of the company (Park et al, 2009).

This study aims to investigate how self-concept plays a role in developing emotional elements of branding. However, brand mangers use emotional elements of branding as a tool for influencing consumer's life style. Despite previous study attempts, there is limited knowledge of the roles of emotional elements of branding play. However, it is not yet clear how these aspects may have effect on consumer brand loyalty. Although this phenomenon is well documented in the literature, virtually all of the researches to date, younger consumers in emerging critical segment in specific

brands, have been neglected in branding literature. Remarkably, the purchasing power of younger consumers has increased, this segment has emerged as key target for luxury brands. For them, the feeling of "iconic, cool" is an important criterion for their purchase decision, which indicates the potential of the brand growth by increasing consumer segments. However, no prior research has investigated the self-concept and emotional elements of branding in the context of consumer brand relationship with younger consumers. Therefore, this study examines this important research gap regarding the emotional elements of branding in the context of young consumers. First, this study aims to understand how the self-concept plays a role in developing emotional elements of branding contributing to loyalty to Apple brand. Second, it assesses how the emotional elements of branding can influence consumer buying behaviour towards luxury brand in the context of young consumers.

The objectives of this study is to contribute to knowledge regarding the development of emotional elements of branding. According to Hwang and Kandampully (2012), given the uniquely strong effect of self-concept play roles on emotional elements of branding…., additional research is needed on consumer's actual purchase. Although significant roles of emotional elements of branding leads to brand loyalty are discovered and the sample of students investigated indicate purchase experiences with luxury brands. However, due to the premium price of luxury brands, younger consumers actual purchase behaviours may not be fully explained by psychological factors. Also, their findings indicated that luxury brands represent one's social standing which means it only considers the self-expressiveness of the brands only, and did not integrate self-representation within social settings.

The findings from ten participants' of Apple brand users will go some way to meeting Hwang and Kandampully (2012) recommendation that further research on self-concept and its effects on emotional brand elements should be establish with the inclusion of both actual purchase experience and social orientations. In this study the researcher choose branded product (Apple) for the following reasons:

i. Young consumers buy branded goods such as (Apple) primarily for symbolic reasons to reflect their individual goals. In addition, their preference for luxury brands is closely related to their images of success.

ii. Consumption of branded products among young people is largely determined by social function attitudes (i.e. self-expression attitude and self-presentation attitude) because they express their need for uniqueness through branded goods.

Research Context
Apple has taken the fear factor out of technology by giving it a personality. Apple is one of the few brands that genuinely inspire love (Haig, 2011). This love is a result of revolutionizing the way consumers view the technology sitting on their desks at work or at home. Apple products inspire strong emotions because the brand defines the identity of its customers (Forbes, 2011). Apple is often considered a cult brand. It offers, like all cult brands, a collective individuality. People want to be different, but they want to belong. Cult brands such as Apple manage to satisfy both impulses simultaneously (Haig, 2011). Responding to consumer anxiety about technology's evolutionary speed, Apple managed to make its customers feel like part of its brand by making it clear the brand understands their needs (Gobe, 2001).

Besides love, the continued relevance of the brand's emotion, and its intricate design thinking, inspire deep brand trust among its followers and account for its success today (Temporal, 2010). If Apple had built its brand purely on features, they would look just like others. Instead, they focus on

an emotional need and desire and establish a bond with buyers who share those values (Post, 2005). People who align with the Apple brand see themselves as innovative, creative and just outside convention. They own an Apple product not just to have a functional product but to reflect their lifestyle (Chritton, 2012).

Apple has also been very successful in creating a tribe of loyal customer base that think, live and act in a differentiated way (Ishrat and Khan, 2011). Apple has done the near impossible – it has acquired a loyal following. Brand loyalty has played a huge part in its global success (Forbes, 2013). Apple has also understood the power of a sensory experience. The company product design and the architecture of their stores have built an emotional connection with people that is unprecedented in the history of branding. Apple went beyond just selling functional products but it has emerged to become an eco-system that connect, engage and motivate consumers to continue to experience with the brand (Gobe, 2001). Apple becomes this new platform that offers consumers the opportunity to dream and participate in the making of new emotional experiences. The coordination of the sensory elements of the brand is particularly important for evoking an emotional connection between the self and a brand (Park, Maclnnis and Priester, 2008).

Contribution to Knowledge
Theoretically, this study contributes to the knowledge of branding research by investigating unexplored but important roles of emotional elements of branding that enhanced brand relationship quality. Practical implications of this study intend to help brand managers recognize the potential of younger consumers and devise effective brand management strategies. The implications are significant because implementation of emotional elements is critical for the sustainability of the brand studied. They support Hwang and Kandampully (2012) study on emotional aspects of branding in the context of younger consumer-luxury brand relationships and take their discussion one step further by providing how these emotional aspects influences young consumers self-concept in actual purchase behavior.

Self-Concept Theory
A multitude of researchers have investigated the notion that individuals strive to create and sustain a self-identity (Belk 1988; Sirgy, 1985; Kleine III, Kleine, and Kerman, 1993; Grubb and Grathwohl, 1967). These researchers have investigated the prospect that it is paramount for human beings to possess a sense of who they are as individuals. This assumption has guided the conceptualization of self-concept theory.

Authors have proposed various definitions of one's self-concept, but are in general agreement on the basis of one's self-concept in that it helps individuals to define themselves as distinct objects or subjects. Belk (1988) is commonly referred to as the founding father of self-concept theory. He proposes that "…a person subjectively perceives who he or she is. He views consumers as possessing a core self that is expanded to include items that then become part of the extended self…." This implies that one's view of one's self extends beyond his/her personal being and includes possessions and other external elements.

Ahuvia (2007) shares Belk's sentiment and argues that discovering one's true preferences, navigating choice and representing the self, both to one-self and to others, has become a tremendous concern and a driving force in consumption. This is a concern in consumption because consumers face difficulties in developing and maintaining a lucid sense of self because of the wider choices about who they want to be and the kind of lives they want to lead. This implies that brands need to consistently communicate positive messages to their market so consumers can have

affirmative experiences of the brands (because of their link to being representative of their self-concept), which will ultimately drive consumption.

Most studies into luxury goods has its roots in the classic concept of 'conspicuous consumption', which sums up the proposition that the rich tend to consume highly conspicuous goods in order to display their wealth and gain social status (Nunes, Dreze, and Han, 2011). Truong (2010) examined the effects of conspicuous consumption on luxury brands. The results suggest that people purchase conspicuous goods not simply because of their functional utility but also to fulfil social needs by deliberately signaling wealth and status. As Eastman, Goldsmith, and Flynn (1999:310) put it, conspicuous consumption occurs when the aim of consumption is to inspire envy in others and to demonstrate one's economic position to others. Conspicuous consumption has been defined as "the motivational process by which individuals thrive to improve their social standing through conspicuous consumption of consumer products that confer or symbolize status for both the individual and surrounding others" (Veblen, 1899).

Coleman (1983) gives a sociological explanation that individuals who engage in conspicuous consumption often do so in order to emulate the consumption patterns of the group of people socially situated either directly or considerably above them. While, Veblen (1899) ascertains that consumers are willing to pay a premium price for a functionally equivalent product that is perceived to be more prestigious. This readiness to pay more may serve to generate considerably more status for the users than any direct utility, and a price premium may paradoxically have positive effects on consumers' decision making processes (Mason, 2001).

Swaminathan et al (2007) provides a view of the conceptualization of self-concept. The authors indicated that brands are highly symbolic entities that are intricately woven into the fabric of consumer's lives and help shape and communicate their individual identities. Swaminathan et al (2007) go on to state "The self-concept connection is based on consumers' desires to express their individuality and their self as distinct from others".

They can do this with Apple brand; for example, looking at the Apple product ranges, which represents being different from others. The consumers who wish to embody these qualities will purchase this brand as it portrays elements of their identity. This view of self-identity is arguably one of the key assumptions of identity theory. This view affirms one of Belk (1988) when he first brought together a larger body of literature to support the thesis that consumers use key possessions to extend, expand and strengthen their sense of self. In contrast, thus Apple brand is positioned to maintain status and the social position of the brand user. As we have seen, however, not every consumer practices are conspicuous consumption – some are motivated by such non-conspicuous benefits such as the quality of the product (O'cass and McEven, 2004). It has also been argued by Belk (1988) that, even deprived are attracted to and indulged in aspects of conspicuous consumption before they have adequate food, clothing and shelter. While clearly labelling this as conspicuous, the implication is that consumers at every class level have the desire to consume for social status (O'cass and McEven, 2004). In saying this, Shukla (2008) stated that it must be recognized that status symbols vary depending on social class, age and gender. Nevertheless, conspicuous consumption behaviour is not necessarily disconnected from those emotional benefits, since signalling status and prestige can be pleasurable for conspicuous consumers (Eastman, Goldsmith, and Flynn, 1999).

Other researchers have studied the importance of one's self-concept as it relates brand love, emotional brand attachment and its influence on brand loyalty. Hwang and Kandampully (2012),

studied the impact of self-concept connection, emotional attachment, brand love and its impact on brand loyalty. The authors focus on three theories, self-concept connection and emotional attachment and brand love, as they enhance consumer brand loyalty.

Veblens (1899) study of conspicuous consumption and how it relates to the self-concept has received criticism when Bagwell and Bernheim, (1996) asserted that conspicuous consumption is based on the premise that those who put wealth in evidence are rewarded with preferential treatment by social contacts, and that such effects depend upon a comparison of the desirability of signaling through price, quantity or quality. In this study, conspicuous refers to the purchase of visually conspicuous brands that may enable consumers to reflect their social status, convey their self-image, and boost their self-esteem.

Brand Loyalty as an Antecedent of Self-concept
Bergkvist and Bech-Larsen (2009) identify the measurements of Brand loyalty as product involvement, perceived quality and brand awareness. Neal and Strauss (2008) both propose that brand loyalty have attitudinal and behavioral dimensions. The attitudinal dimension describes a consumer's overall satisfaction, while the behavioral dimension represents the tendency of a consumer to purchase a particular brand repeatedly over time. In a research, Starr and Rubinson (1978) find a positive relationship between attitude and loyalty toward a brand. Aaker (1991) is defendant of the concept defined brand loyalty "as a consumer's repetitive and systematic purchasing behavior in relation to a given brand." The definition implies that consumers are brand loyal when both attitude and behavior are favorable. However, it does not clarify the intensity of brand loyalty, because it precludes the possibility that a consumer's attitude is unfavorable, while he/she repeats the purchases. In such case, the consumer's brand loyalty would be superficial and shallow-rooted (Ha, 1998). Aaker (1991) also noted a link between brand loyalty and brand awareness. He finds out that brand awareness contributes to brand equity.

Khan and Mahood's (2012) findings revealed that brand loyalty offer benefits like willingness to invest, cost less to serve, and increase the number of customers by attracting new ones. This corresponds with what Phau and Cheong, (2009) stated as a major determinant of brand equity However, some aspects of this approach have also been criticized. Belaid and Behi (2011) argue that brand loyalty should be interpreted primarily as an attitude toward a given brand. Likewise Dick and Basu (1994) point out that even a relatively important repeat purchase may not reflect true loyalty to a product but may merely result from situational conditions such as brands stocked by the retailer. Oliver (1999) stated that when consumers have strong belief about the brand quality and high degree of satisfaction, they are likely to repurchase the brand.

In this study, the researcher focuses on attitudinal brand loyalty because it is an immediate outcome of customers' emotional responses and this focus is appropriate given that we are interested in how emotional aspects of brand relationship influence consumer's attitudinal commitment (that is willingness to pay a higher price premium), rather than their willingness to repeat a purchase (that is the degree to which they will buy the same brand) that necessitates an actual purchase history.

One of the aims of this study is to investigate the relationship between consumers' brand loyalty and emotional attachment. However, a prior study on emotional brand attachment has shown that individuals with strong emotional bonds to an object report greater brand loyalty and willingness to pay the price premium (Thomson et al, 2005). Luxury brand attachment can be a result of their perceived premium quality, recognizable style, reputation, and limited access. Therefore, in the

perception of these young consumers, these characteristics signify emotional, experiential and symbolic values (Berthon et al, 2009).

Because of these attributes, luxury brands like Apple are used as possessions intended to shape their identity by bridging the inner self and external world (Belk, 1988). For instance, an Apple product can be desirable to wealthy consumers who wish to mark their social status and economic power symbolically, to less wealthy but aspiring their aspirations, and to younger consumers who seek identity affirmation and a sense of belonging in owing such goods (Park et al, 2009). The process governing brand loyalty also suffers significant shortcomings. Though Jacoby and Chestnut (1978) clearly identify brand loyalty as a function of psychological (decision-making, evaluative) processes exhibited over time, and little insight into the process condition has been obtained.

Background of the Brand studied
The Apple computer company is arguably one of the most innovative technology companies to emerge in the last three decades. Apple, Inc. is responsible for bringing to market such products as the Macintosh desktop and portable computer, iPod and iTunes, and most recently, the iPhone and iPad, are design icons. The success of the company can be traced to the ingenuity of their founder and Chief Executive Officer, Steven Jobs and Steven Wozniak (Mallin, M. L. and Finkle, T. A., 2011).

Young Consumers and Status Consumption
In terms of the size, there are approximately 70 million in young consumers (Hewlett et al, 2009). These consumers as those born from 1977 to 1994 (Norum, 2003). They are considered the first high-tech generation and are perceived as consumption-oriented and sophisticated shoppers (Jackson et al, 2011). Additionally, young consumers are seen by marketers as having a high level of spending power and very socially conscious (Eastman and Liu, 2012). This trend setting consumers comes from their lifelong loyalties to certain branded products and the need to express who they are through what they have (Noble et al, 2009). In this study, Apple branded products is being tested for their ability to signify status, aiming in conforming to social setting.

Status consumption is define as "the motivational process by which individuals strive to improve their social standing through the conspicuous consumption of consumer products that confer and symbolize status both for the individual and surrounding significant others" (Eastman, Goldsmith, and Flynn, 1999:42). O'cass and Frost (2002:82) in a study of young status conscious consumers found they "are more likely to be affected by a status brand's symbolic characteristics, by feelings evoked by the brand and by the degree of congruency between the brand-user's self-image and the brand image." Another stream of research suggests that younger consumers spend more on branded products including status products (Chau and Schor, 1998). Consistent with this idea Phau and Cheong (2009) found that young status consumers may be willing to substitute other brands for branded items. Material possessions are many times used by young consumers as an expression of self and readily connect them with personal happiness and personal success (Cook, 2011).

Importantly, in regards to young consumers and luxury consumption, social comparison of goods (particularly mobile phones, laptops, iBook) among these young consumers is a very frequent occurrence – this is primarily because they are very concerned about their social self-images (Cook, 2011). Cook (2011) argued that there is an abundant amount of shopping information available for young consumers –various media; the internet, which is extremely an important source for them to seek out new and innovative products.

Self-Expansion Theory

The Theory of "self-expansion" emphasizes a central motive whereby individuals expand their selves to be more than they are, by acquiring perspective, resources and identities to enhance their ability to achieve goals (Patwardhan & Balassubramanian, 2011). This suggests that a consumer can identify himself in a relationship with a brand based on adequacy between his own personality (Didier and Cindy, 2010). In addition, the fundamental premise of the theory is that, consumers purchases are partly driven by a desire to construct self-concepts and communicate them through wearing and using branded products (Hwang and Kandampully 2012). In order to understand the long term relationship between consumer-brand, it was important to explore the self-expansion theory, which mostly explores the reasoning for purchase, but not reasoning for long-term commitment to the brand. However, relating to a brand and repurchasing a brand has not been explored in the long-term. It has been used when researching initial attraction to the brand affect exploring the long-term aspects. However, whether consumer's behaviour through self-expansion affects loyalty and attachment, have not been conveyed in the previous studies. The theory is an important aspect when consumers purchase brands, due to the fact it affects why consumers obtain certain brands, therefore, the theory of self-expansion is relevant for this study.

Self-Congruence Theory

Most studies into luxury goods has its roots in the classic concept of 'conspicuous consumption', which sums up the proposition that the rich tend to consume highly conspicuous goods in order to display their wealth and gain social status (Nunes, Dreze, and Han, 2011). Truong (2010) examined the effects of conspicuous consumption on luxury brands. The results suggest that people purchase conspicuous goods not simply because of their functional utility but also to fulfil social needs by deliberately signaling wealth and status. As Eastman, Goldsmith, and Flynn, (1999:310) put it, conspicuous consumption occurs when the aim of consumption is to inspire envy in others and to demonstrate one's economic position to others. Conspicuous consumption has been define as "the motivational process by which individuals thrive to improve their social standing through conspicuous consumption of consumer products that confer or symbolize status for both the individual and surrounding others" (Veblen, 1899).

Coleman (1983) gives a sociological explanation that individuals who engage in conspicuous consumption often do so in order to emulate the consumption patterns of the group of people socially situated either directly or considerably above them. While, Veblen (1899) ascertains that consumers are willing to pay a premium price for a functionally equivalent product that is perceived to be more prestigious. This readiness to pay more may serve to generate considerably more status for the users than any direct utility, and a price premium may paradoxically have positive effects on consumers' decision making processes (Mason, 2001).

Apple brand is positioned to maintain exclusively, to communicate status and the social position of the brand user. As we have seen, however, not every consumer practices conspicuous consumption – some are motivated by such non-conspicuous benefits such as the quality of the product (O'cass and McEven, 2004). It has also been argued by Belk (1988) that, even deprived are attracted to and indulged in aspects of conspicuous consumption before they have adequate food, clothing and shelter. While clearly labelling this as conspicuous, the implication is that consumers at every class level have the desire to consume for social status (O'cass and McEven, 2004). In saying this, Shukla (2008) stated that it must be recognized that status symbols vary depending on social class, age and gender. Nevertheless, conspicuous consumption behavior is not necessarily disconnected from those emotional benefits, since signaling status and prestige can be pleasurable for conspicuous consumers (Eastman, Goldsmith, and Flynn, 1999).

Veblens (1899) study received criticism when Bagwell and Bernheim (1996) asserted that, conspicuous consumption is based on the premise that those who put wealth in evidence are rewarded with preferential treatment by social contacts, and that such effects depend upon a comparison of the desirability of signaling through price, quantity or quality. In this study, conspicuous refers to the purchase of visually conspicuous brands that may enable consumers to reflect their social status, convey their self-image, and boost their self-esteem.

Research Methodology
Researchers recommended the use of qualitative methods to study processes (Ghauri and Gronhaung, 2005) as they help with two aspects: exploring phenomena about which little is known and gaining a new understanding of existing phenomena (Sekuran and Bougie, 2010). Among the many types of qualitative research methodologies, in-depth semi-structured interviews as the methodology tool was found to be most suited to this study. Non-probability sampling technique was used to identify a sample of Apple brand users/owners. Therefore, the selection of the sample will largely be dependent on the person's usage of an Apple brand. For this thesis the sampling strategy will be a theory based purposive sampling.

The participants in this study are Coventry University Advertising and Marketing students. A non-probability (i.e. convenience) was recruited over a two-week time frame. There are several reasons for the choice beyond convenience. University students represent an important present and future market segment that are most likely to buy luxury goods and services (Hauck and Stanforth, 2007). Their ages range from 21-28 and were considered to be willing to take part in the study and to be able to give useful information.

The convenience sampling technique was used to identify respondents from Coventry University students. Convenience sampling enables the researcher to gather data from as many participants as possible (Saunders et al, 2007). However, the objective of this study is focused on gathering data on Apple users and therefore the researcher's access to them was limited to only those using the Apple products.

Relevant and current academic journal articles have been used in this research, in particular, recognized business literature and peer review scholarly articles. The reliability of this thesis, therefore, also depends on the reliability of the literature chosen as source. The use of primary data obtained from Apples users, provides this paper a sense of accuracy and truthfulness. To clarify and justify the participants, profiles of the interviewees are provided in Appendix. Also, the figure below represents the construct and themes used to validate this study.

Constructs and Themes

Brand Love (Batra, Ahuvia, and Bagozzi, (2012)	Passion-Driven Behaviours	Investment of time and money
	Positive Emotional Connection	Emotional Attachment
Emotional Brand Attachment		Affection
		Passion
		Connection

Brand Loyalty		Product Involvement
		Perceived Quality
		Brand Awareness

Results
Characteristics of Respondents
Respondents of this in-depth interview consist of 5 males and 5 females, which mean the participants, were equally chosen form both genders. The age trend of the participants is 23-27 years old and the respondent's highest education level is Master's Degree. This research examines the construct self-concept as an antecedent to brand love, emotional brand attachment and brand loyalty. The construct was examined with sample students of Apple users. Apple products mentioned in this study can be classified as high involvement as a big economic or psychological loss is at stake. The research aims to find out answers to the objective stated below:
RQ1: How self-concept plays a role in developing emotional elements of branding contributing to loyalty to the Apple brand.
RQ2: What elements of self-concept affect consumers to develop brand loyalty towards a luxury brand?

The Effect of Self-Concept on Emotional Brand Attachment
Affection
Past research Bowlby, (1979) states that the more strongly consumers are attached to a brand, the more willing they are to forsake personal resources to maintain an on-going relationship with that brand. Sam says: "I am a die-hard follower of Apple. I won't buy anything else…..apple is always my first option if it is in that category. Apple is my first preference [smile]". Similar comment is made by Shawn: "I will replace my phone with Apple …if something happens to it." However, Emily shares a different a view stating the brand personality of the Apple product are the reasons why she is connected to the brand : "The gadgets are simple, intuitive and easy to use…it helps me do more and more." Likewise Alfie: "I like the design, it is perfect. I do not intend to switch to another brand." Eight out of the ten respondent show positive affection towards their Apple products. While two of the respondents pointed out the importance of brand personality in contributing to their emotional connection with the brand.

Passion
Respondents show an apparent high level of emotional attachment to the Apple brand (Thomson, MacInnis and Park 2005). This is to say brand attachment is link to word of mouth form through brand loyalty. Joseph states: "Apple is a very good brand and I will go about recommending it to people. I have been using it and I feel it's very good." Similarly, Emily says: "I'm trying my hardest to get my friends to change their PC to Apple." While Tony states "I think I'm behind the reason why my dad purchased it…then my younger brother follows." On the other hand Sonny shares a different sentiment: "I am not really committed to Apple. This illustrates that the level of passion towards a brand depends solely on the length of time with the product. Since Sonny has just started using the Apple products lees than a year. Overall, all the respondents shows strong passion towards the Apple brand while Sonny shares a different sentiment mentioned above.

Connection
This study reveals a strong positive relationship between self-concept and brand attachment (Malar et al 2011). When consumers fall for certain brands such as Apple, it reveals a link between the brands and how they perceive themselves or how they would like to be perceived by others. Sam illustrates: "This is going to sound really cheek [laugh]….but is about quality of life….i deserve the

best and Apple does the best." Similarly, Nancy said that: "Apple reminds me of the type of person I want to be. In future I want to be seen as a recognizable person when I step out." Nonetheless, Apple's brand image has an effect on the sense of connection they have with their products, illustrated in the following remarks. Shawn says "Apple is the first brand to introduce the Mackintosh….that's remind me of they are the market leader." While Emily says: The first thing that comes to my mind when someone talks about is Steve Jobs. I think he came synonymous with the brand. He is great and one which reflected the brand attributes." This implies that Apple products serve as a communication tool that consumers use to speak to others and even to themselves of the type of person they are or would like to be (Park et al 2010). This connection that the brand has forged with the subconscious of consumers often results from brand attachment.

The Effect of Self-Concept on Brand Loyalty:
Product involvement
Consistent with previous findings, the pattern of results reported here suggest that brand attachment is a direct determinant of brand loyalty (Hwang and Kandampully, 2012). Alfie states that: "Based on my experience with Apple. I think its fits well with my lifestyle". Likewise, Nancy says that: "I'm planning to update my laptop and I already have Apple on my mind". The case of Alfie and Nancy confirms Khan and Mahood (2012) findings that brand loyalty offer benefits like willingness to invest. In this case Apple has to manage these establish consumers as they cost less to serve, and can also increase the number of consumers through attracting new ones. All respondents equally stated the same. Sam says: "I will definitely by Apple again if a new one comes out". While Shawn put it this way: "I have decided that any product I buy will be Apple" Similarly, Emily: "I will never buy any other brand apart from Apple."

Perceived Quality
This study confirms Oliver's (1999) argument about development of a Brand Loyalty process. Results support the finding about a customer's strong beliefs about brand quality and high degree of satisfaction. In turn, results indicate a positive intention or commitment to repurchase. Therefore, this study emphasizes the importance of self-concept and its effect on brand loyalty and to better understand their repurchasing intentions on the Apple brand. Sam says: "It is brilliant and it is the best brand in the world right now." Similarly, Tony says: "Apple gives me confidence besides functionality…that is what I think".

Discussion and Conclusion
This study shows that when young consumers show love for a brand and emotional attachment, it enhances their loyalty towards that brand. By using a sample of Coventry University students who are a representative group of young consumers and an importance group for luxury brands.

The major findings of this study are as follows:
I. Brand attachment has a significant positive effect on brand love feeling.
II. The feeling of love toward a brand can reinforce trust, the interest in continuing the relationship and faith in the future regarding the brand.
III. Brand love feeling is influenced nearly equally by self-expressive brand and brand attachment.
IV. Finally, loyalty intensions are less influenced by brand attachment than by brand love.

These results corroborate the findings of Carroll and Ahuvia (2006) because self-expressive brand is an important antecedent to brand love feeling with loyalty intentions an outcome. Carroll and Ahuvia (2006) suggest that self-expressive brands like Apple brand tend to be loved; therefore Apple may find that enhancing these aspects of their offerings increases this intense emotional

response in consumers'. Nevertheless, this paper suggests that Apple build a relationship with customers and has created an identity that leads them to self-identification and social-identification with the products offered.

The results of this study show that self-concept is an important antecedent of emotional attachment and brand love. This finding is in line with Kleine et al (1993) argument that the self-schema is tied to attachment. From this perspective, the degree to which young consumers feel that their self-concept match with their luxury brand are based on the hedonic aspects (Belk, 1988) is enough to build emotional relationship. The study reveals that young consumers form brand love as they perceive that a brand expresses an important part of their selves. This results support the assertion that brand-elicited affect exert significant influence on the development of consumer brand relationships (Carroll and Ahuvia, 2006) and the same view applies to these Apple consumers investigated.

Another important finding concerns the differing effects of self-concept on the emotional elements of branding. The findings show that brand love, emotional attachment and brand loyalty encourages loyalty in an attitudinal manner but consumer's strong attachment towards their objects elicits greater feeling of loyalty towards the brand. That is to say, when brands elicit feelings of emotional bond in the minds of the consumers', the brands are more likely to prompt consumer's desires to maintain a relationship (Carroll and Ahuvia 2006).

From a marketing perspective, the findings of this research show that integrating emotional elements of branding into marketing luxury is critical for the survival of the Apple brand, with respect of retaining these Apple users. These findings are meaningful because as noted, these consumers studied are influential group for luxury brand consumption. This study shows that these consumers are likely to continue to use Apple because they perceived commonalities with their respective self-concepts and that they feel emotionally attached to Apple brand which they feel passionate love for.

Thus, it is very important for marketing managers to focus on the emotional elements of branding for retaining these valuable consumers. It also suggests that brand managers need to communicate their brand identity effectively in order to accomplish such emotional elements, rather than solely depend on marketing tactics. By doing so, brands like Apple can differentiate themselves in the market and increase their customer base.

Based on the above findings, the theme has shown direct effects of self-concept and brand loyalty. In general, the reliability and validity of the results presented in this study is considered in line with the literature. However, validity to the constructs, measures, sample and the Apple brand studied. Thus, the data of the study comes from a single product category (Apple product users), the present constructs should be validated in other product categories (more utilitarian in nature). In future, researchers could investigate how emotional elements of branding impact on actual purchase behaviours also (Hwang and Kandampully, 2012). Another suggestion is to extend the present study to consider the role of self-expressiveness goals, self-presentation goals and social goals and its impact on other luxury brands. Using wider samples containing greater representation of University Students is also recommended.

References
Aaker, D. A. (1991) *Managing brand equity.* New York: The Free Press
Ahuvia, A. (2005) 'Beyond the extended self: Loved objects and consumers' identity
    narratives'. *Journal of Consumer Research 32,* 171-184
Apple (2012) Emotional brands [online] available

From:<http://my.safaribooksonline.com/book/branding/9780749462871/11-emotion-brands/apple_the_cult_brand#X2ludGVybmFsX0J2ZGVwRmxhc2hSZWFkZXI/eG1saWQ9OTc4MDc0OTQ2Mjg3MS8xNzM=> [24 June 2019]

Bagwell, L. S. and Bernheim, B. D. (1996) 'Veblen effects in a theory of conspicuous consumption'. The American Economic Review, 86 (3), 349

Belk, R.W. (1988) 'Possessions and the extended self'. *Journal of Consumer Research* 15 (2), 139–168

Bergkvist, L. and Bech-Larsen, T. (2009) 'Two studies of consequences and actionable antecedents of brand love'. *Journal of Brand Management* 17 (7), 504-518

Bowlby, J. (1979). The Making and Breaking of Affectional Bonds. London: Tavistock

Belaid, S. and Behi, A. T. (2011) 'The role of attachment in building consumer brand relationships: An empirical investigation in the utilitarian consumption context'. *Journal of Product and Brand Management* 20 (1), 37-47

Carroll, B.A., and Ahuvia, A.C. (2006) 'Some antecedents and outcomes of brand love'. *Marketing Letters* 17(2), 79-89

Chritton, S. (2012) Personal Branding for Dummies. New Jersey: John Wiley and Sons

Cook, G. R. (2011) 'Youth and Consumption'. *Journal of Consumer Marketing* 28 (2), 553

Coleman, R. (1983) 'The continuing significance of social class to marketing'. *Journal of Consumer Research* 10 (3), 265–280

Dick, A.S. and Basu, K. (1994) 'Customer loyalty: toward an integrated conceptual framework'. *Journal of the Academy of Marketing Science* 22, 99-113

Didier, L., and Cindy, L. (2010) 'Impact of brand personality on three major relational consequences (trust, attachment, and commitment to the brand)'. *Journal of Product and Brand Management* 19 (2), 114-130

Eastman, J. K., Goldsmith, R.E. and Flynn, L.R. (1999) 'Status consumption in consumer behaviour: Scale development and validation'. *Journal of Marketing Theory and Practice* 7 (3): 41–51

Forbes (2011) Is brand loyalty the core to Apples success [online] available from < http://www.forbes.com/sites/marketshare/2011/11/27/is-brand-loyalty-thecore-to-apples-success-2/> [18 July 2019]

Fournier, S.M. (1998) 'Consumers and their brands: developing relationship theory in consumer research'. Journal of Consumer Research 24 (4), 343-73

Eastman, J. K., Goldsmith, R.E. and Flynn, L.R. (1999) 'Status consumption in consumer behaviour: Scale development and validation'. *Journal of Marketing Theory and Practice* 7 (3): 41–51

Grubb. E. L. and Grathwohl, H. L. (1967) 'Consumer Self-Concept, Symbolism, and Market Behavior: A Theoretical Approach'. *Journal of Marketing* 31 (10), 22-27

Ghauri, P.N. and Gronhaung, K. (2005) Research methods in business studies: A practical guide. New York: Prentice

Ha, S. and IM, H. (2012) 'Identifying the Role of Self-congruence on Shopping Behavior in the Context of US Shopping Malls'. *Clothing and Textiles Research Journal* 30 (2), 89-101

Haig, M. (2011) Brand Success: How the world's Top 100 Brands Thrive and Survive. London: Kogan page

Hauck, W.E., Stanforth, N. (2007) 'Cohort perception of luxury goods and services'. *Journal of Fashion Marketing and Management* 11 (2), 175-88

Hirschman, E.C. and Holbrook, M.B. (1982) 'Hedonic consumption: emerging concepts, methods and propositions'. *Journal of Marketing* 46 (3), 92-101

Hewlett, S.A., Sherbin, L. and Sumberg, K. (2009) 'How Gen Y and Boomers will reshape your agenda'. *Harvard Business Review* 8, 1-8

Jackson, V., Stoel, L. and Brantley, A. (2011) 'Mall attributes and shopping value: differences by gender and generational cohort'. *Journal of Retailing and Consumer Services* 18 (1), 1-9

Jacoby, J., Chestnut, R.W. (1978) Brand loyalty: measurement and management. Chichester: Wiley

Khan, M. and Mahmood, A. (2012) 'Impact of Brand Loyalty factors in Brand Equity'. *International Journal of Academic Research* 4 (1), 33-37

Malär L, Krohmer H, Hoyer W, Nyffenegger B. (2011) 'Emotional Brand Attachment and Brand Personality: The Relative Importance of the Actual and the Ideal Self'. *Journal of Marketing* 75 (4), 35-52

Mason R. S. (2001) 'Conspicuous consumption: a literature review'. *European Journal of Marketing* 18, (3), 26–39

Mallin, M. L. and Finkle, T. A. (2011) 'Apple INC'. Product Portfolio Analysis'. *Journal of the International Academy for Case Studies* 17 (8), 49-56

Nunes, J. C., Xavier, D. and Young, J. H. (2011) 'Conspicuous Consumption in a Recession: Toning It Down or Turning It Up?' *Journal of Consumer Psychology* 21 (2), 199–205

Neal, B. and Strauss, R. (2008) Value Creation: the Power of Brand Equity. , Independence, KY: Cengage Learning/South-Western

Oliver, R.L. (1999) 'Whence consumer loyalty'. *Journal of Marketing* 63, 33-44

O'cass, A. and Frost, H. (2002) 'Status brands: examining the effects of non-product-related brand associations on status and conspicuous consumption'. *Journal of Product & Brand Management* 11 (2), 67-88

Park, C., Whan, D. J., MacInnis, J., Priester, A. B. E. and Dawn I. (2009) 'Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers'. *Journal of Marketing* 74 (6), 1–17

Park C. W, MacInnis D J, Prester J. (2008). 'Beyond attitudes: attachment and consumer behaviour'. *Seoul Journal Business* 12 (2), 3-35

Phau, I. and Cheong, E. (2009) 'How young adult consumers evaluate diffusion brands: effects of brand loyalty and status consumption'. *Journal of International Consumer Marketing* 21, 109-23

Patwardhan, H., and Balassubramanian, S. (2011) 'Brand romance: a complementary approach to explain emotional attachment toward brands'. *Journal of Product and Brand Management* 20 (4), 297-308

Saunders, M., Lewis, P. and Thornhill, A. (2007) Research Methods for Business Students. 4th. New York: Prentice Hall

Sirgy, M . J. (1982) 'Self-concept in consumer behaviour: a critical review'. *Journal of Consumer Research* 9 (3), 287-300

Shukla, P. (2008) 'Conspicuous consumption among middle age consumers: Psychological and brand antecedents. *Journal of Product and Brand Management* 17 (1), 25–36

Starr, M.K. and Rubinson, J.R. (1978) 'A loyalty group segmentation model for brand purchasing simulation'. *Journal of Marketing Research* 15 (3), 378-83

Swaminathan, V., Karen, L.P. and Gürhan-Canli, Z. (2007) 'My' brand or 'our' brand: the effects of brand relationship dimensions and self-construal on brand evaluations'. *Journal of Consumer Research* 34 (2), 248-59

Truong, Y. (2010) 'personal aspirations and the consumption of luxury goods'. *International Journal of Market Research* 52 (5), 653-671

Temporal, P. (2010) 'Advanced Brand Management Managing Brands in a Changing world. 2nd West Sussex, John Wiley and Sons, Inc.

Veblen, T. (1899) Conspicuous Consumption. Penguin, London

18.
PRACTICE-LED AND PRACTICE-BASED RESEARCHES

ADIWU Talatu Onkala / Professor MBAHI A. A.
Department of Fine Arts
Faculty of Environmental Studies
University of Maiduguri
Maiduguri
adiwutalatuonkala@gmail.com / **adamumbahi78@gmail.com**

Introduction
There are more than one way of defining research, and there are several traditions as to how research should be carried out. Research comprises "creative and systematic work undertaken to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new application" (Manual, 2015). Research is used to establish or confirm facts, reaffirm the results of previous work, solve new or develop new theories. A research project may be an expansion on past work in the field. Research project can be used to develop further knowledge on a topic. To test the validity of instruments, procedures, or experiments, research may replicate elements of prior projects or the project as a whole.

Archer (1995) said "research is a systematic enquiry whose goal is to communicate knowledge". It is pursued according to some plan. Scientific approach is based on ground rules. Science is concerned with explanation. What can be observed? What events can be recorded? How does this, that or the other event proceed? What is the cause of this or that? The scientific ideal is to produce explanations that have enduring validity and remain valid when tested in wider and wider fields of application and which therefore offer some powers of prediction. Science is not defined by its subject matter. Science is defined by its intellectual approach.. The whole process of scientific research is characterized as being empirical (that is, based upon evidence obtained in the real world), objective (that is, free from the influences of value judgment on the part of the observer) and inductive (that is, moving from the observation of specific instances to the formulation of general rule). Empiricism, objectivity and inductive reasoning are basic components of a scientific approach.

According to Archer, in Humanities research consists in finding new things to know, or in identifying new ways of knowing them or refuting previous commentary on existing material. The difference between Science research and Humanities research are Science still seeks ultimately to explain and Humanities still seek ultimately to evaluate. Generally, research in the Humanities tradition advances by the conduct of logical argument. Propositions are validated or refuted by exemplification and citation.

Some artists and designers claim that what they ordinarily do is research. They argue that their art works or design products or other creative practitioner output constitute new knowledge. They believe that the act of publicly exhibiting, installing, manufacturing or distributing their works, constitutes publication. They say creative practitioner activity is synonymous with research activity. To what extent can such a claim be justified? Certainly, there is such a thing as tacit knowledge, that is, a kind of knowing that is not separated from perception, judgment or skill which the knowledge informs. There will be some of that in all creative practitioner activity.

In academics a practitioner activity can be recognised as a research activity, but one has to ask: Was the practitioner activity directed towards the acquisition of knowledge? Was it systematically conducted? Were the data explicit? Was the record of the conduct of the activity transparent, in the sense that a later investigator could uncover the same information, replicate the procedures adopted, rehearse the argument conducted, and come to the same (or sufficiently similar) conclusions? Were the data and the outcome validated in appropriate ways? Were the findings knowledge, rather than information? Was the knowledge transmissible to others? Only when the answers to all these questions are in the affirmative can a practitioner activity be classed as research or can be equated with it (Archer, 1995).

There are circumstances where the best or only way to shed light on a proposition, a principle a material, a process or a function is attempt to conduct something, or to enact something, calculate to explore, embody or test it. Such circumstances occur frequently in explorations in agriculture, education, engineering, medicine and business. Such explorations are called Action Research. All the rules governing research practice apply to Action Research. Research about practice can be of many kinds. Art or design history, for example and the analysis and criticism of the output of art or design activity are Humanities subjects. Studies about art or design in relation to people and society fall within the Social Sciences. Studies about the materials and the processes fall within appropriate science disciplines. Studies of the methodologies of art or design fall within the crosscutting discipline of design research. All studies about practice if they are to be recognized as research studies, must employ the methods and accord with the principles.

There are several forms of research like scientific, humanities, artistic, economic, social, business, marketing, practitioner's research, life, technological, etc. Generally, research is understood to follow a certain structural process. Though step order may vary depending on the subject matter and researcher, the following steps are usually part of most formal research:

1. Observation and formation of the topic,
2. Hypothesis,
   A testable prediction which designates the relationship between two or more variables.
3. Conceptual definitions,
   Description of a concept by relating it to other concepts.
4. Operational definition,
   Defining the variables and how they will be measured or assessed in the study.
5. Gathering of data,
   Identifying a population, selecting samples, gathering information from these samples by using scientific research instruments. The instruments used for data collection must be valid and reliable.
6. Analysis of data.
   Break down the individual pieces of data collected to draw conclusion about it.
7. Data interpretation,
   This can be represented through tables, figures, and pictures and then described in words.
8. Test,
   Revising of hypothesis.
9. Conclusion.
   Reiteration is necessary (Wikipedia).

According to Deswell (2008), major steps in conducting research are:
   i.   Identification of research problem,

ii.   Literature review,
iii.   Specifying the purpose of research,
iv.   Determining specific research questions,
v.   Specification of a conceptual frame work,
vi.   Choice of a methodology (for data collection),
vii.   Data collection,
viii. Verifying data,
ix.   Analysing and interpreting the data,
x.   Reporting and evaluating research,
xi.   Communicating the research findings and possibly recommendations.

The steps generally represent the overall process, however, they should be viewed as an ever-changing iterative process rather than a fixed set of steps (Gauch, 2003). Most research begins with a general statement of the problem (Rocco; Hatcher & Creswell, 2011). The literature review identifies flaws and holes in previous research which provides justification for the study. A gap in the current literature, as identified by a researcher, then engenders a research question. The research question may be parallel to the hypothesis. The hypothesis is the supposition to be tested. The researcher then analyses and interprets the data via a variety of statistical methods, engaging in what is known as empirical research. The results of the data analysis in rejecting or failing to reject the null hypothesis are then reported and evaluated.

Practice Research
Practice research is a form of academic research which incorporates an element of practice in the methodology or research output (Wikipedia). Rather than seeing the relationship between practice and theory as a dichotomy, as has sometimes traditionally been the case, there is growing body of practice research academics across a number of disciplines which use practice as part of their research. And there are variety of models of practice research such as practice-as-research, practice-based, practice –led, mixed mode research practice, practice through research and visual arts practice. The potential, nature, and scope of this research has been debated from the 1990s (Sullivan, 2010). Factors that shaped the debates were legislated change to affiliate art and design schools within higher education systems and the other was the provision of government funding, which directly tied to research outputs. These caused a reassessment of the position of the arts in the academy and how the university community was managed and supported. As a result, substantial questions were raised about the theories and practices of the visual arts and whether studio inquiry could feasibly be considered to be part of the university research community.

Artists who work in university also teach, but the question is: Do they do research? Can visual arts practice be accepted as a form of research? Frayling (1993) adopted Herbert Read's model of education through art to describe different ways of thinking about research, noting that research could be for practice where research aims are subservient to practice aims through practice, where the practice serves a research purpose, or into practice such as observing the working processes of others. The growing recognition of arts practice as research generated from the belief that there are circumstances where the best or only way to shed light on a proposition, a principle, a material, a process or a function is to attempt to construct something or to enact something, calculated to explore, embody or test (Archer, 1995). This led to the acceptance of practice research in disciplines to be reviewed alongside traditional research disciplines in the sphere of higher education (Wikipedia). The UK Art and Humanities Research Council supported practice-led research, which assisted in evolving the notion of practice as research in art, design and

architecture, media and creative writing. This in turn brought an increasing recognition in the ways creative departments contribute to research culture (Wikipedia).

The strategy before was to define a common purposes whereby studio practices could be seen to achieve goals expected of any research activity. The Prascati Manual (Sullivan, 2010) was seen to embrace the creative inquiries undertaken by visual arts and design practitioners. Practice-based researchers are attracted to the definition of research used in the Prascati Manual because it introduced creativity as an important feature of research. The Organization for Economic Cooperation and Development (OECD) (2002) described research as:

> Creative work undertaken on a systematic basis in order to increase the stock of knowledge, culture and society, and the use of this stock of knowledge to devise new applications (p.30).

Practice-based research activity contributes to the stock of knowledge, unfortunately practice-based researchers were stuck with the construct and conventions that frame research and development in the social sciences. This is useful in the areas of design and technology where research often involves problem-solving procedures whose task is to come up with inventive solutions, products and processes.

Practice-based researchers face an identity crisis and the challenge is to redefine the kind of research undertaken in studio contexts so as to more adequately represent what it is that artists do when carrying out research. Although all forms of research involve purposeful and systematic inquiry, there also needs to be agreement that different approaches and strategies can be used to pursue common ends. The early debates mostly involved coalition of theorists and practitioners from Europe, United Kingdom, and Australia, with participation from scholars in the United States (Sullivan, 2010).

The role of artists in higher education and the changing face of professional identity continue to be the topic of discussion. The position of the artist remains less certain. Dilemmas about teaching and learning in the studio, changing relationships with the contemporary art world, and limited access to all levels of institutional participation, all play a part in these uncertainties. One task involved in promoting art practice as research is to consider what it is that artists do. What artists do, of course, is to make art, and as an object and subject of study, art has been picked over by aestheticians, historians, psychologists, sociologists, critics and cultural commentators. But what artists do in the practice of creating artworks, and the processes' products, proclivities, and contexts that support this activity, is less well studied from the perspective of the artists.

Artists who are readily able to take up position of theorists, philosophers, researchers, curators and art writers, make many of the arguments found in the growing literature on practice-based research and practice-led research. Advocacy arguments, historical synopses, research guides and case studies in anthologies, articles, position papers, conference proceedings, dedicated print and e-journals, online research centres, and theorized arguments in monographs and single-authored texts, now fill the ranks debating the significance of art practice as research (Sullivan, 2010).

Both practice-led and practice-based researches fall within the general area of action research. In these researches, researchers' aims are to advance knowledge about practice and within the practice. The researchers are easily distinguished one from the other by purposes. A research is termed "practice-based" if it is targeted at creating artifact which its basis is to contribute to

knowledge. A research is termed "practice-led" if its outcome points out new understanding about art practice. Practice –based research is undertaken in order to gain new knowledge partly by means of practice and the outcome of the claims of originality which the researcher puts forward as basis of the research. The claim to originality and the contributions to knowledge may be demonstrated through the creative outcomes (artifact) which may consist of images, music, design, models, digital media, performances and exhibitions (Candy, 2006).

A practice-based PhD is distinguishable from a conventional one because the creative outcomes from the research process are or may be included in the submission for examination of the claims of contribution to the field. It must include substantial contextualization of the creative works. In this sense, practice-based research deals with locating a problem in a practice, which can lead to research which can be presented textually. This results from constant exploration in the studio or laboratory which eventually produces new knowledge and understanding. Studio based research in art are theorized through practice. Theory is the basis for the generation of ideas. The pathway for interrogating ideas. The pathway for interrogating ideas is through practical production of art. There is no one fit-it-all methodology that researchers can readily adopt to carry out research. There are many methodologies applicable to art.

The Nature of Practice-based and Practice-led Educational Researches
There are different names of these types of research. It is also referred to as art-based research field-based traditions, practice-based research, practice-led research, artistic research and visual research. The different names can be used interchangeably according to a researcher's choice and subject matter. Artistic research is also seen as "practice-based research" and can take form when creative works are considered both the research and the object of research itself. Artistic research is to investigate and test with the purpose of gaining knowledge within and for our artistic disciplines. It is based on artistic practices, methods and fantasticality. Through presented documentation, the insights gained shall be placed in a context. Artistic research aims to enhance knowledge and understanding with presentation of the arts. Klein (2010) defines artistic research perhaps more so than other disciplines, intuition is utilized as a method to identify a wide range of new and unexpected productive modalities. Writers whether of fiction or non-fiction books, also have to do research to support their creative works. This may be factual, historical or background research (Hoffman, 2003).

Visual research is a qualitative research methodology that relies on the use of artistic mediums which include film, photography, drawings, paintings and sculptures. The artistic mediums provide a rich source of information that has the ability to capturing reality. They also reveal information about what the medium capture, the artist or the creator. Art-based research educational research has direct lineage to qualitative research traditions. The genre of visual record methods as build on field-based traditions and used to respond to the pervasive image-based world we encounter every day. Art practice as research explores and explains the capacity of visual arts research to create knowledge that can help us understand the world we live in and how we learn to make sense of it. The meanings that artists make from their imaginative investigations are not only collected from their encounters with things around them but they also created in response to their experiences. Artists create new understandings from what we don't know which profoundly changes what we do know. It is believed that artistic forms of knowing contribute in our understanding of the increasing complex world we inhabit.

Art practice as research inquiry argues that the imaginative and intellectual work undertaken by artists is a form of research. The critical and creative investigations that occur in studios, galleries,

or the internet, in community spaces and other places where artists work, are forms of research based on studio art practice. Rather than adopting methods of inquiry from the social sciences, the research practices explored subscribe to the view that similar research goals can be achieved by following different yet complementary paths. What is common is the attention to systematic inquiry in a way that privileges the role imagination and intellect play in constructing knowledge that is not only new but has the capacity to transform human understanding. The study of visual arts builds on the links between art history, fine arts and humanities. Based on the agreement that the arts contribute to the goals and purpose of research, art educators are increasingly vocal in positioning the arts as distinctive forms of inquiry.

Art –based research was first formally cited around the mid of 1990s (Sullivan, 2010). Art-based educational inquiry describes and interprets phenomena whereby seeing or sensing is the basis for compiling thematic patterns of evidence from which meaning is made vivid. Art-based researchers favour those features of qualitative research that encourage the use of a responsive approach in order to understand complex realities of the classroom. In surrounding research problems in order to solve them, data gathering involves creating rich literary word portraits and various forms of artistic documentation that reflect the insight of the insider and the critical focus of the dispassionate observer. While the mode of communication is predominantly language based, the means of representation involve many artistic forms that are used to capture, reflect, and critique the multiple textural realities being investigated.

Most basic art-based educational research is an example of practitioner-based inquiry whose aim is to bridge perceived disconnects between quantitative and qualitative traditions of research using the capacity of the arts to deal critically, socially and creatively with problems facing education. Problems and issues are investigated using strategies of inquiry that are grounded in the arts, yet take their methodological cue from the social sciences. Art-based research draws attention to the multiplicity of ways of encouraging and representing experience through the arts and the use of forms of expression and representation that effectively communicate research outcomes in new ways. With its emphasis is on constructivism, critical interpretation, and contextualism.

Art –based educational research attempts to draw on wide theoretical and cultural support to further build its status as a viable methodology. Within qualitative inquiry in the social sciences, art-based research offers an opportunity to look to the arts as culturally relevant forms and practice that deal with aspects of human knowing as no other field of inquiry does. "The arts simply provide qualitative researchers a broader palette of investigative and communication tools with which to garner and relay a range of social meanings" (Leuvy, 2009:11-12). McNiff (1998, 2008) holds that science and art are contemporary modes of knowing and forms of inquiry and we need to resist the tendency to "reduce one to the other and the assumption that one is more truthful" (p.34). "Just as science assists art-based research through its emphasis on systematic inquiry, art enhances the process of discovery in science by its responsiveness to the unexpected" (p. 39). Art-practice is a specific and special form of research. "In the arts the idea of a qualitative-quantitative divide becomes irrelevant because by its distinct nature arts research calls for a different set of categories where the arts do not search for stuff or facts, but they generate it (Baldacchino, 2009b:4).

The promise of new insights and the possibility of more compelling theories is why people do research, because this holds the prospect of improving the structures and actions we put in place to conduct our lives. In traditional area of research such as the human sciences, inquiry methods are mostly theory-driven and studies are designed to build on existing knowledge so that the results help fill in the gaps. Sometimes the outcomes can be surprising and create new theories that take a

field in new directions. A similar impulse to want to know compels people to make art. There has been much theorizing done that seeks to explain what then visual arts are, why artworks are made, how they are viewed, what the cultural impact is, why and how art might be taught, and so on. These are mostly philosophical issues that link theories of art to cultural practices and the learning lives of individuals.

Philosophical theories may include claims about concepts, content and relationship among visual arts forms and contexts. Constructing theories using problem-solving strategies is based on the premise that there is a gap between a perceived problem and how it might be explained. Problem-solving encourages a pluralistic aesthetic where there can be any number of correct solutions, although some may be more appropriate than others. The cycle of inquiry involves the identification of a research problem that includes criteria for its resolution. A review of related research about what has already been done, a plan of action, the production of an object or prototype, and an evaluative stage where the solution is tested against the original demand of the problem.

The artist is the key figure in the creation of new insights and awareness that has the potential to change the way we see and think. The studio experience is a form of intellectual and imaginative inquiry. And the studio is a site where research can be undertaken that is sufficiently rob us to yield knowledge and understanding that is individually situated and socially and culturally relevant. Areas of interest may involve an investigation of how insight is created in the process of making art Research practice in visual arts ask questions about the process and products of artistic knowing. To do this, the artist can be both the researcher and the object of study. The artist can be the subject of a case study and here the methods range from interpretive biography. As a producer of new knowledge and understanding, critics, historian and philosophers give insights into why and how art is made and interpreted and how it may function in society.

The main research interest is to study forms, methods, and meanings by making interpretations about art. The goal of the art writer is to produce work that is based on evidence that justifies the questions asked and support the claims made. A work can be considered to be a site where knowledge is created and meanings are made. Research about works of art communicates new insight into how objects carry meaning, whether by means of description, representation, expression, or through symbolic form. Researchers who study the way that art practice might function to help understand the contexts surrounding visual arts will be interested in the communicative and political role of art. The analysis of artworks, artifacts and other socially situated texts and the circumstances surrounding their production and presentation, mean that both the forms themselves and the viewing public are subject of study.

Conclusion
What has not been well understood in the past is the place of artists and the things they do in the studio that is part of artistic traditions of inquiry. For some art educators, the school classroom studio is a unique place for problem finding and problem solving, media exploration, and giving form to ideas of personal and social relevance. Understanding the art making practices by doing studies of artists that reveal insights into the imaginative mind is a common approach used to investigate creativity and to model artistic learning processes.

Studio practice is a central site where visual arts research takes place. The studio is a place of inquiry. Studio art experiences include the full range of ideas and images that inform individual, social and cultural actions. These may include issues that take place within community or within

the institutional setting and these inquiries can move within and across different subject areas. What is most important about art is the artwork. Artists know this. Art writers know this. Art educators know this. And to enlighten others will not only take advocacy and political guide but also credible evidence, convincing argument, sound research, insightful practice, valid theory and powerful art. Consequently, the quest to claim visual arts as an important area of human knowing, requires strong arguments.

Although important research practices in visual arts are found in the studio, in galleries, in communities, on the streets, or on the internet, they have not yet find a rightful place within institutional settings. Art practice as research incorporates ways of presenting, encountering and analysing information that is sufficiently robust to produce new knowledge. It is possible to consider the visual, not only as a descriptive or representational form, but also as means of creating and constructing images that form an evidential base that reveal new knowledge.

References

Archer, B. (1995). The nature of research, Co-design Interdisciplinary Journal of Design, Pp.6-13 https://archive.org

Balkema, A.W. & Stager, H. (Ed.) (2004). Artistic research, Amsterdam: Dutch Society of Aesthetics, Vol.18

Banks, M. (2001). Visual methods in social research, London: Sage

Baron, T & Eisner, E.W. (1997). Art-based educational research unit R. M. Jaeger (Ed.).Complementary methods for research in education (2nd edit.), Washington D.C.: American Educational Research Association

Barone, T. (2008). How art-based research can change minds in Colimann, J. & Siegesmind, R. (Eds.). Art-based research in Education: Foundations for practice, New York: Routledge

Brown, N.C.M. (2003). Art as a practice of research, New York: The Centre for International Art Education Inc., Teachers' College, Columbia University

Candy, L. (2006). Creativity and cognition studies, University of Technology, Sydney CCS Report: retrieved from http//www.creativityandcognition on 20th May, 2015

Creswell, J.W. (2008). Educational research: Planning, constructing and evaluating quantitative and qualitative research (3rd edit.), Upper Saddle River, N.J.: Prentice Hall

Eisner, E.W. & Peskin, A. (Eds.) (1990). Qualitative inquiry in education. The Continuing Debate, New York: Teachers' Press

Flick, U. (2002). An introduction to qualitative research (2nd edit.). London; Sage

Frayling, C. (1993). Research in art and design, Royal College of Art Research Papers, 1(1); 1-5

Gauch Jer H.G. (2003). Scientific method in practice, Cambridge, UK; Cambridge University Press

Hoffman, A. (2003). Research for writers, London; A & O Black Publishers Limited

Manual, F. (2015). Measurement of scientific, technological and innovation activities, on1; 10.1787/0780264239012-en

Norman, E.; Heath, R.; Pedgley, O. (undated). The training of a practice-based PhD in design, http//www.core77.com/research/thesisresearch.Wml, retrieved on 31/5/2019

Rust, C. (2005). AHRC review of practice-led research, Architectural research quarterly, Sheffield: Hallam University, UK

Rocco, T.S.; Hatcher, T & Creswell, J.W. (2011). The handbook of scholarly writing and publishing, San Francisco, C.A.: John Wilayinsons

Shields, P. & Rangarajon, N. (2013). A play book for research methods: Integrating conceptual frameworks and projects management, Stillwater, OK: New Forums Press

Stuart, M. & Julian, M. (Eds.) (2015). Practice-based research in art and design, International Journal of education through art, Online www.google.com

Sullivan, G. (2010). Art practice as research inquiry in visual arts, Columbia: Columbia University Teachers' College

Sullivan, G. (2005). Art practice as research: Inquiry into the visual arts, Thousand Oaks, C.A.

Wein, J. (2010). What is artistic research? Catalogue.