



Trajectory of Digital Engagement in Contemporary Visual Communication Design in Nigeria

Trevor Vermont Morgan

Department of Fine and Applied Arts, University of Nigeria, Nsukka
morgan.trevor@unn.edu.ng; +2348064440984
<https://orcid.org/0000-0002-0695-1531>

Abstract

The story of art in Nigeria is incomplete without accounting for the developments around graphics design practice, especially in formal education in the universities. This study provides an account of how the practice and learning of visual communication design (or graphics design), moved from manual to the digital techniques. It also takes into account the strategic place and development of design-making in Nsukka Art School (NAS), University of Nigeria, as the first university in Nigeria to establish a degree programme in visual arts. As an ensemble of historical pieces, this study constructs an account of the trajectory of visual communication design-making in Nigeria, while using NAS for pedagogical example, deriving information from personal accounts, interviews and archival documents. It follows a historiographic framing. The digitalisation process affected design areas such as two-dimensional design (poster making), printmaking, illustration, product design, creative photography, media production for the screen and other aspects of graphics, and this paradigm shift should be accounted for in order to advance scholarship in art and design history in Nigeria.

Keywords: Nigeria, graphic design, art, digital, visual communication, computer, Nsukka Art School

INTRODUCTION

In the past creating art was altogether a manual process, to aid daily subsistence. This subsequently progressed through the developments of delivery tools—manual, mechanical, analogue, and digital technologies (with the computer as the peak). In itself, the spread of industrial revolution from England to other countries in 18th century contributed remarkably to the progress of graphic design and the technological essences it needed to thrive; and thus was further advanced by the introduction of the moveable press type. By the end of the 20th century, graphic design had experienced a tremendously unparalleled influence from the introduction of the computer and other digital accessories. This was followed by the coming of the internet, which provided a wide landscape of interaction for designers and artists. Thus, visual communication designing has been dependent on contemporary technological tools that form it (Frank, 2006).

Of the contemporary and global developments that brought design and designers this far, Arntson (2007) highlighted the computer as a tool that provides the visual and conceptual layering possibilities which is the core of postmodernism/experimentalism in graphic design. This brought about the rich experience of digital drawing of images, photographic imaging in digital darkroom, and the possibility of postmodern typography (Smith, 2002; Whale, 2002). In creating standards for the design field, modern technologies provide arrays of added possibilities including enhanced productivity and ubiquitous reproduction of design works.

Following consumerist's essences, developments of graphic art across societies and nations are graduated according to cultural and societal demands of the local people who patronize them. Moreover, the art is expressed by how much people of specific ecologies practice and apply them, and by the interaction of art and people with other art cultures. Kusch substantiated this understanding when he wrote of creating visual communication design,



that "... graphic artists investigate the values and beliefs of the people with whom they are hoping to communicate and then research those people's reactions to images, layout design, and color" (Kenney, 2009; Kusch, 2006, p. 112). Thus, in its wide range of application, visual designs are essentially particularized on need of the society; and beyond commercial and advertising roles, they carry mediatory functions in reaching the society's conscience.

Although, art making using the computer is now a historical development, it spelt out for nations and Nigeria in particular a global purview of creative possibilities and realities away from the traditional essences that defined its design art. Hence, each society or people possesses its history on the absorption of available technology and practice. Of this digital contact, how can we account for the professional and formal experiences of design-making in Nigeria's design art space? Nigeria has a strong domestication and indigenization of art, yet her experience around visual communication design in contact with the digital is yet to be receive a focal study. It is this design-making experience that this study sets out to underpin following historical review and analysis of archival materials. The study is therefore located in historical framework.

The rationale for these deals phenomenally with the focus of the study: art development, and the way global circulation of digital technology and materials have affected it, from colonial to post-colonial periods. Graphic art and design institutions in Nigeria have been reshaped in their operational modes. The interaction with global media has nonetheless interspersed the cultural indices of traditional art in Nigeria and has bred a new art culture identified as contemporary Nigeria art.

HISTORICAL PERSPECTIVE ON NIGERIA GRAPHIC DESIGN PRACTICE

The growth of graphic designing in Nigeria is an integral part of the development of modern Nigerian art, which began rather informally and budded in the academia. From formal or academic standpoint, Nigeria's case is much like that of the rest of the world, in which there is a challenge of trapping the histories of graphic design (Triggs, 2011). Yet in this study a history of graphic design in Nigeria is contrivable following experiences of modern Nigeria art.

This study has elicited a deliberate dissection of the integrated chronicle of modern art in Nigeria, which has a strong background in the academia. In Igboegwu's historical account, "graphic design was introduced in Nigeria with the coming of the Europeans (Igboegwu, 2004)." This could be argued in rethinking what was available and what the traditional methods were before the European advent. Nneji (1987) holds the view that graphics had been in Nigeria before the arrival of the European missionaries, rooting his argument on the instance of *Uli* paradigm, a creative body decoration, for which Nsukka Art School is known (Morgan, Nwigwe, & Uzoagba, 2017). Nsukka Art School is used interchangeably with Nsukka School or loosely for the Department of Fine and Applied Arts, University of Nigeria. It is significant to maintain that the forces that induced the (formal) modern art movement in Nigeria are not totally different from those that gave rise to the history of graphic design.

Igboekwu and Nneji, however, found a common ground around the place of the Europeans in the development of graphic design in Nigeria. They maintained that language and communication barriers were major reasons for the introduction of the formal mode of graphic design by missionary and colonial authorities who wanted to Christianize Nigerians via education. In the colonial episode of education, Nneji affirmed that graphic design works served the function of visual aids in Sunday school classes for teaching students, in which process, students with visualizing power and creative indulgence began to copy these materials. This development was substantiated by Oloidi when he wrote of Aina Onabolu (1882-1963), a father of modern Nigerian art that "he started copying illustrations in textbooks, newspapers and other foreign publications of the period" (Oloidi, 1987). He was

not alone in this pursuit of self-discovery, many other pioneer artists were equally self-tutored following the same creative propensities and opportunities.

As art programme was developed and taught across Nigerian colleges through the activities of K.C. Murray, Aina Onabolu and other expatriates, graduating students of art were taken up in diverse colonial ministries needing designers and information disseminators. Obiora Udechukwu's position as Assistant Commercial Artist in the Ministry of Agriculture, Enugu in 1965 before his training at Nsukka Art School, as well as his job position as graphic designer in the Ministry of Information, during the Nigerian Civil War validates this assertion (Udechukwu, 1993, 2010).

Beyond these pioneering influences and personal developments identified above, other persons or activities that kept the wheel of graphic art rolling in Nigeria through the second half of last century include George Adams and Paul Chapman at the Nsukka art school, Ulli Beier's effort at informal Oshogbo group (Ottenberg, 2002). This went alongside the activities of indigenous artists such as Paul Akpabonam, Solomon Wangboje, Felix Ekeada, Ogbonnaya Nwagbara, Bruce Onabrakpeya, Chuka Amaefuna, (Okafuizuna, 2004; Oloidi, 1995; Uka, 2004). As the design field grew, other names began to emerge and contribute to the growth of graphic design in Nigeria by practice, teaching and/or by writing including but not limited to David Dale, P. Omo-erese, Olajide Oshiga, Philip A. Salu, Osita Njelita, Dan Ozoigbo, G.I. Okolo, among several others (Okoro, 1980). Yet, it is fact that many names would not be accounted for, owing to the large scope of the design practice.

In Nigerian academies, new dialectics of art were born after the Uche Okeke led Zarianists' "rebellion" as artist began to seek meaning in indigenous experiences and expressions. Ideas became culturally routed in design-making, and imageries began to reflect the essence of the local people and their environment. Bruce Onobrakpeya, African's great printmaker, like other Zarianists, returned to his locality and began a "process of searching for personal idioms of expression"(Oloidi, 2006; Singletary, 2002). The pursuit towards adopting cultural indices in visual expression eventually birthed the *Ulist* and *Nsibidi* experiments as creative idioms. Although artists like Akinola Lasekan, Uche Okeke, Obiora Udechukwu (among several others) are not formally schooled as graphic artists, at certain points in their career, they accorded impetus to the development of the design field as a creative means of social commentary in the academia, politics, commercial practice and in ideological spaces (Okwu, 1990). (See Fig 1: Uche Okeke's poster of 1967).

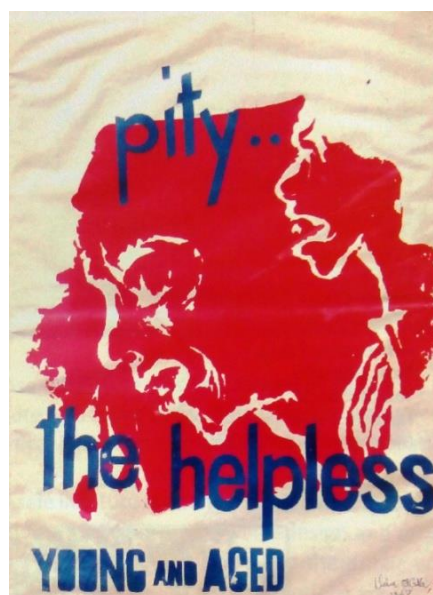


Fig 1: The journey of our independence|| **Uche Okeke**
Persuasive poster, 1967. Silkscreen print on paper, 38x51cm.



Although sculpture and painting practices expressed cultural idioms and motifs such as Uli, commercial art practice or graphic designs rarely did, except in specific ideological or conceptual works. Visual communication designs rather maintained conventions through contemporary technological possibilities that encouraged commercial growth of the field. This, perhaps, owes to the possibility of the fact that designers usually produced works according to client's demand.

THE TRANSITION FROM MANUAL AND THE DIGITAL TOOLS

How did Nigeria fare in the days before the entrance of digital apparatuses in graphics design and visual communication? In professional practice, Nigeria, in its pre-digital days of design production, was not exempt from the realities of graphic design as a deliberate user-friendly and functional creative enterprise, which existed majorly in surface designs especially in popular art. Surface designs found (and still finds) expressions in prints, advertising, packaging and signage, with little possibilities for screen design in analogue systems. Technologically, in pre-digital Nigeria, graphics design involved the manual, mechanical and analogue techniques of art reproduction for pre-press stages of drafting and paste-up; serigraphy (silkscreen), and aspects of general designs including logotypes, stamps and seals, badges, sign writing, banner publicity by stencilling and dabbing and so on. This level of professional practice was hugely evident among road-side (popular) artists and designers.

In their city-wide presence, they were able to offer a wide range of surface design and print services, which provide certain individual, institutional, industrial and commercial solutions.¹ On the technological forces that drove graphic design before the digital intervention, Nneji (1987) gave an essential enumeration of tools and materials used, as art cannot be completely divorced from the tools, materials and processes that form it, as well as the purpose they serve.

In pre-press stage of commercial art, designing revolved around the artist's power of conceptualization, and rendering with manual tools such as drawing sets, t-square, adjustable set square, French curve, drawing board, light box, airbrush, atomizer, letraset, composing stick and tweezers for letterpress and others. Processes of typesetting, filming, colour separation, and plating followed manual manipulations and existing analogue cum mechanical equipment of the time. Such technologies involved photo stencilling, monotype casting, compugraphic typesetting (for creating types for offset printing), and photographic filming (using Repromaster, among other process cameras).

Brands, such as Svecia machines, were used for large format industrial serigraphy, (highly core in graphic reproduction for outdoor advertising) and were owned by few and big advertising agencies in Nigeria (Nneji, 1987) such as Afromedia, Lintas, Pearl and Dean and so on. In lithographic processes, although certain levels of photographic and full colour outputs of designs were possible, Nneji maintained the technological possibilities of the pre-digital Nigeria constrained most graphic reproductions to flat colour rendering owing to the high cost of reproduction.

The introduction of the computer in creative activities in early 1960s (Arntson, 2007; Lansdown, 2002) tremendously advanced its thrust on visual communication design around the world. The change in tools, materials and techniques of design production, reproduction, and photography remains the highpoint of the digital revolution. And with the introduction of Desktop Publishing around 1985, a paradigm shift was made in visualisation and design (Adolphy, 1994; Victoria and Albert Museum, n.d.). The integrated systems of Desktop Publishing which accommodates word processing, typesetting and graphic handling was an obvious boost to graphic design industry. Nigeria fell in line as she began to embrace this development as at early 1990s.



Of this new possibility, Gordon and Gordon (2002) wrote that every aspect of graphic design could be created and finished to a high professional level on a single PC or Apple Macintosh workstation (which includes a scanner, colour output systems and internet). A large opening for creativity was made. In Nigeria, at first many a pop artists were reluctant and apprehensive to embrace the computer as a tool, not being fully aware of the underlying possibilities it held for their art,ⁱⁱ while others thought the new trend would as it were breed passivity and proliferation of practitioners in the industry (Adolph, 1994).

Some opined that the use of digital apparatuses would dilute quality of practice and personnel in the design field, perhaps sharing the view with Whale (2002, p. 17) when he wrote that "with interactive software, even artistically untrained individuals can now create complex shapes with ease..." In the same vein, Oloidiⁱⁱⁱ provides more understanding for formally trained artist when he argued by that most academic disciplines in the sciences also have popular or street practitioners, with instances of electrical or mechanical engineers have their equivalents as roadside electricians and mechanics respectively as well as herbal healers imitating medical doctors. So, against the idea of minimizing the potency or viability of digital art, Mealing, underscored the fact that "it would be strange to criticize a painting because you could see that it had been made with a brush and paint" (Mealing, 2002, p. 5) as the computer is merely a tool.

Nigeria, however, undoubtedly absorbed the revolutionary power of the computer and the digital apparatuses in design art as shared across global media and the internet. The influences have continued to manifest in pop art practice, formal advertising agencies, and the academy. For public service and functions of art, the computer has created a huge trans-cultural transformations, which have allowed for the integration of both traditional and digital tools. In his point of view, Trapcheva-Kwan (2012) maintains there should be a symbiosis between the traditional and digital approach to art and design: "instead of cutting the cord between the pre-digital and the digital era, special attention should be paid to the art expression cultivated by the merging of traditional with digital techniques."

This argument holds the idea that the focus should be on the art and the impact made rather than on the tool used. In Nigeria, there has been an intersection of traditional and digital approach in certain aspects of design-making. The aging professionals who trained formally in manual techniques and technologies have found ways to integrate digital tools in their creative working, while the younger ones seem to only mind the digital tool. This, for me, may signal a bleak future for art and design works which are mainly produced using manual tools.

Graphic design software applications now provides tools for creative activities such as moving, skewing, rotating, mixing colours, extruding, enveloping, outlining, cropping and montage, colour correction and various effects and filters, replacing the functions of manual tools. Surface designs for prints, advertising, packaging, signage; and screen designs (which involves internet and web graphics, and multimedia) have found limitless possibilities in myriads of software programs. In the earliest spread, computer programs such as Aldus PageMaker, and earliest versions of CorelDraw vector application helped Nigerians to solve their basic design problems such as creating and manoeuvring of lines, curves, shapes, layout, colour and typefaces; illustrations, colour roughs, logotypes, emblems, and symbols, moving across applications for editing and filters in object linking and embedding (OLE), prototypes and previews using tools provided within the application interface.

Today, advanced software applications can afford special effects to advance aesthetic, communicative and persuasive stylisation of types, forms and shapes, with wide possibilities in raster software apps as well as in 3D productions. Conventions in typography as obtained in the traditional systems have given way to huge range of typefaces and the possibilities of kerning, leading, alignment, wrapping, amongst others. Wide arrays of



digital and mobile devices with their inbuilt cameras and scanners afford the today's artists possibilities of generating images for design from around the immediate environment far from what was obtainable in pre-digital days. Colour process systems in applications as well as related digital apparatuses for colour separation, lithography or direct impressions offer huge chromatic outputs in the production of design works.

Unlike in the pre-digital days when few agencies coordinated large format graphic reproductions and advertising in Nigeria (Okeke, 1994), the present day designer has an incalculable influx of diverse of digital machines and materials. There are digital aids to the production process of drafting, creating roughs and prototyping, plating (computer to plate image transfer), impression, coupled with the tremendous realities of heat transfer, direct imaging, monogramming, flexographic systems of large format printing and branding on various surfaces like metals, ceramics, shirts, plastics, and so on, for time maximization, precision of outputs and better finishing. In one of such examples, Gordon and Gordon on printing technologies wrote: "Letterpress machine have been largely converted or replaced by flexography," (Gordon & Gordon, 2002, p. 76). With the above possibilities notwithstanding, Nigeria takes exceptions in areas of animation and 3D digital media production, which are still burgeoning (Morgan, 2020).

Graphic design in the Nsukka Art School: History and practice

Although Yaba and Zaria schools existed as post-secondary art schools in Nigeria before Nsukka, "the Nsukka School can boast of a substantial contribution to the growth of modern Nigerian art, perhaps soon to modern American art" (Nkurumeh, 2002, pp. 134, 141). Of the Nsukka Art School, Okoronkwo wrote that it remains one of the leading art schools in Nigeria having projected Nigerian modern art (Okoronkwo, 2012). With the formation of the Department of Fine and Applied Arts in the University of Nigeria in 1961, "nearly all the art teachers [were] British or American" as Miss Margret Dunlap headed the Graphic Design section^{iv}. After the Nigerian Civil War which temporarily truncated scholarship, the expatriates George Adams and Paul F. Chapman moved on with the graphic design department of the school until their departure. The school later absorbed other important professors who impacted graphic design art in the Nsukka academy such as I.B. Oghene, Salvator Onyeonu, G. Uka, among others^v. Although the school has through the years continued to produce graphic artists and designers, only a number has continued in the academia.

In a vivid account of the development of graphic design in Nsukka Art School, one observes design trends that gained influences in the use of contemporary tools and technologies. Here, one observes realities of the pre-digital training, improvements in design possibilities, and the transition from traditional to digital in Nsukka School. Considering archival evidence and collections, each decade from the outset of the academy shows a milestone towards development of skill, styles and techniques. Nsukka School like other institutions of design show as major, defining factors of periods of manual and digital production. Such periods addressed issues in time used for design, rigor involved in design-making, stages of productions, aesthetics and finish of works, sizes of work achievable, amongst others.

These factors were evident in the system and styles of pop designs produced across Nigeria. Onah (1987) in a survey of poster making in manual and analogue days of the Nsukka School argued that tools and materials were limiting factors in training and learning. He enumerated types of materials available for the designer: papers, boards, colours (poster colours), brushes, palettes, atomizer, lettering sets with their accompanying manual tools, differing substantially from those of the digital era. In his own view, Nneji (1987) described the technology of the period and its professional implications in terms of the process of chromatic renderings, reproductions and the effectiveness of the output. He placed advantage in rendering full colour graphic works in flat tones over those in graded tones, as being easier to achieve and less time-consuming. He maintained that

works in graded tones are usually more herculean and expensive to achieve in analogue pre-press systems than the ones rendered in flat tones.

But with the 21st century digital technologies even complex productions of works can be carried out with ease—from pre-production to post-production. Of graphic design-making in Nsukka Art school, from the visual evidences, designs created up till 1980 were flat in layout, colour layering and illustration were without noticeable chromatic gradation (Fig 2) while those from 1980 upwards were all the more laid out in graded tones to suggest backgrounds and foregrounds (Fig 3).



Fig 2: I am a Nigerian Citizen|| **Uchendu O.**,
Informative poster, 1972.
Gouache on board, 49.2x32cm.

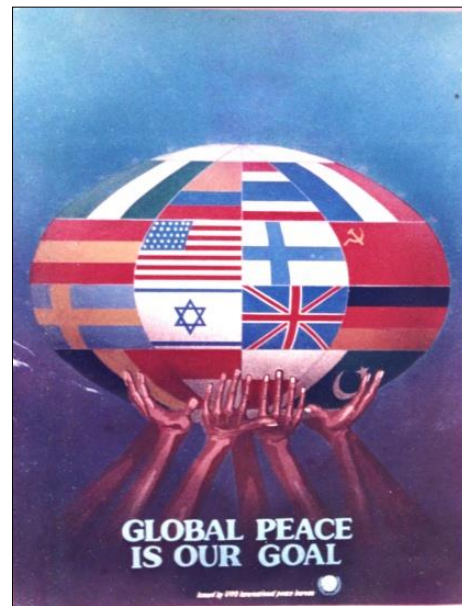


Fig 3: Global Peace|| **Anonymous**
Persuasion poster, 1982.
Gouache on board, 69.5x48cm.



Fig 4. Trash Can ||Martin Okonkwo.
Persuasive poster, 2002.
Gouache on board, 60x32cm

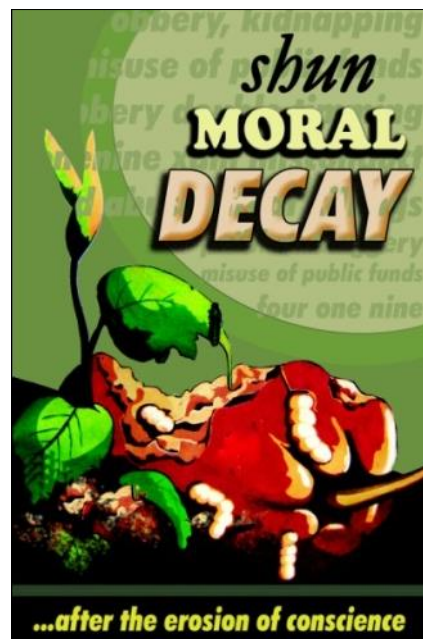


Fig 5. Moral Decay||**Author**
A Persuasive poster combining manual
and digital techniques, 2010.
Gouache and digital. 42x59.39cm.

The poster in Fig. 5 shows a manifest difference of digital influence in the design. Such considerable differences could be observed mainly in typography and the overall sense of organising design elements. In Nsukka Art School improved design output began to emerge with the introduction of digital tools in teaching courses that involved layout design, typography, illustration and general graphics. The design in Fig. 5 shows a combination of both manual and digital influences. Here the imagery was created manually, scanned and edited with a raster software application and typography using the computer.

Concerning the digital development at Nsukka School, Uka, who has taught in the school for more than two decades, gave a summary of details in a personal communication^{vi}. It is clear that from the outset, design teaching and practice had been carried out along traditional-manual-analogue modes. Although Uka in personal communication maintained that after he returned from an academic tour in South Korea in 2000, he introduced the use of digital and computer graphic art into the department, it seems that a substantial move to this approach by students did not take place until around 2005.

I am aware that a tangible integration of the computer in students' practice began in earnest in 2006 with general graphics design and creative photography.^{vii} Before this time general graphic designs were done manually and photography was done with monochrome cameras and analogue processes. At the inception of the introduction of the computer, there was a certain kind of hybridization of the traditional and the digital. Uka continued: "As the head of department in 2010 I attracted a workshop on digital visualization, in which the university established a digital studio for the department."^{viii}

The year 2011 saw the emergence of new curriculum in visual communication design at the Nsukka art school where courses on computer graphics, multimedia were added.^{ix} Digital mode of design have been comprehensively introduced. Many of the courses currently offered in the design section of the Department are digitally based especially in specialisation years. Below are samples of digital works by students.

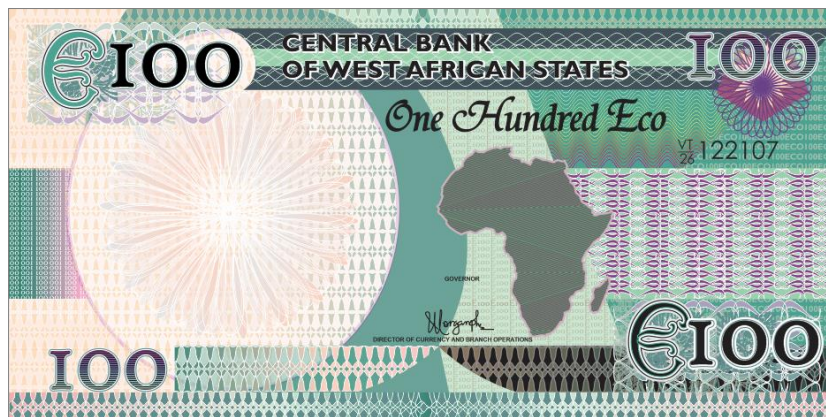


Fig. 6: Bank note Design ||Author
Digital, 2010



Fig. 7: Outdoor poster design | Author
Digital print, 2010, 60.28ft x 33.21ft

CONCLUSION

This study has provided a vital aspect of the history of contemporary art in Nigeria, whose trajectory drives through the informal to the formal, the popular to the academic. The traditional approach to graphic design has largely given way for the contemporary technology development which operates on digital economy. Available accounts point to the earliest emergence of graphic design-making during the colonial period. However, the academia has been an important melting point for the development of art since the modern era. It is important to note that there is not a total displacement of manual and mechanical tools in the delivery of visual art, although the digital has assumed the centre of global art stage.

The need to utilize digital tools in visual communication design and teaching has become hugely significant, particularly in exposing learners to effectiveness in delivery, time efficiency and wider audience through various online outlets. Beyond the use of digital tools in surface design, Nigeria needs to explore more grounds in interactive, 3D and generative graphics. Schools of art and universities ought to fully and strategically equipped to embrace the digitalisation of design-making in an evolutionary way. Designers must seek to advance their creative aptitude along technologies of the time they live and practice – and now towards experimentalism. Cross boundaries; create the story; preserve the history. Definite aspects of the developing histories of digital use in design art should be articulated.

References

- Adolph, A. C. (1994). *Computer and Visual Communication in the Contemporary Nigerian Society: A Case study of Advertising in Lagos Metropolis*. (Thesis). University of Nigeria Nsukka, Department of Fine and Applied.
- Arntson, A. E. (2007). *Graphic Design Basics* (5 ed.). Belmont: Thomson Wadsworth.
- Frank, P. (2006). *Prebles' Artforms: An Introduction to the Visual Arts* (8 ed.). New Jersey: Pearson Education, Inc.
- Gordon, B., & Gordon, M. (2002). *The Complete Guide to Digital Graphic Design*. New York: The Ilex Press.
- Igboegwu, E. C. (2004). *Graphic Design and its contribution to commerce and industry in Nigeria: A Case study of Onitsha Metropolis*. (Thesis). University of Nigeria Nsukka,
- Kenney, K. (2009). *Visual Communication Research Designs*. New York: Routledge.
- Kusch, P. (2006). Review of 'Graphic Design as Communication'. *Technical Communication*, 53(1), 112.
- Lansdown, J. (2002). Some trends in Computer Graphic Art. In S. Mealing (Ed.), *Computers and Art* (2 ed., pp. 51-58). Bristol: Intellect Ltd.



- Mealing, S. (2002). Introduction. In S. Mealing (Ed.), *Computers and Art* (2 ed., pp. 5-6). Bristol: Intellect Ltd.
- Morgan, T. V. (2020). Pushing the frontiers of Nigeria's cultural communication through digital media practice. *Virtual Creativity*, 10(2), 175-190.
doi:https://doi.org/10.1386/vcr_00031_1
- Morgan, T. V., Nwigwe, C., & Uzoagba, C. (2017). Visual Language and 'Paintaglios' of Gerald Chukwuma: A Critical Analysis. *Arts*, 6(2), 8. doi:10.3390/arts6020008
- Nkurumeh, B. (2002). Beyond Ulism: Printmaking in the Nsukka School. In S. Ottenberg (Ed.), *The Nsukka Artist and the Nigeria Contemporary Art* (pp. 132-144). Seattle: University of Washington Press.
- Nneji, N. A. (1987). *Technology in the production and reproduction of Graphics*. (Thesis). University of Nigeria Nsukka,
- Okafoizuna, E. F. N. (2004). Paul Akpobonam: A Pioneer Nigerian Artist. In *Modern Nigerian Art in Historical Perspective* (pp. 73-86). Abuja.
- Okeke, E. E. (1994). *The Historical Development of Advertising in Nigeria: A Case Study of Lintas*. (Thesis). University of Nigeria Nsukka,
- Okoro, E. M. (1980). *Index of Nigeria Artists*. (Thesis). University of Nigeria Nsukka,
- Okoronkwo, J. U. (2012). Trends and Development in Modern Nigeria Art. *Journal of Modern Nigerian Art*, 1(2), 33-39.
- Okwu, J. N. (1990). *A Case Study of the Nsukka Roadside Signwriters*. (Thesis). University of Nigeria Nsukka,
- Oloidi, O. (1987). Constraints on the Growth and Development of Modern Nigerian Art in the Colonial Period. *Nsukka Journal of the Humanities*, 5(6), 29-51.
- Oloidi, O. (1995). Three Decades of Modern Nigerian Art (1960-1990): General Observation and Critique. *USO: Nigerian Journal of Art*, 1(1), 66-73.
- Oloidi, O. (2006). *Philosophical and Ideological Triumvirate: Schools, Discourse and Styles in Modern Nigerian Art*. Paper presented at the 2nd National Symposium on Nigerian Art (Styles, Schools and Movements in Modern Nigerian Art), Obafemi Awolowo University, Ile-ife, Nigeria.
- Onah, S. C. (1987). *Sixteen years of Poster making: A Survey of the Nsukka Art School, 1971-1986*. (Thesis). University of Nigeria Nsukka,
- Ottenberg, S. (2002). Reflections on a Symposium and an Exhibition. In S. Ottenberg (Ed.), *The Nsukka Artist and the Nigeria Contemporary Art* (pp. 3-33). Seattle: University of Washington Press.
- Singletary, R. A. (2002). Forging a Nigerian Identity: The Art of Bruce Onobrakpeya. In S. Ottenberg (Ed.), *The Nsukka Artist and the Nigeria Contemporary Art* (pp. 219-238). Seattle: University of Washington Press.
- Smith, B. R. (2002). Post-modern art, or Virtual reality as Trojan donkey, or Horsetail tartan literature groin art. In S. Mealing (Ed.), *Computers and Art* (2 ed., pp. 125-142). Bristol: Intellect Ltd.
- Trapcheva-Kwan, P. I. (2012). *The Symbiosis of Traditional and Digital Techniques*. (MFA Thesis). University of New York,
- Triggs, T. (2011). Graphic Design History: Past, Present and Future. *Design Issues*, 27(1), 3-6.
- Udechukwu, O. (1993). So far: drawings, painting, prints 1963-1993. In. Bayreuth: Boomerang Press.
- Udechukwu, O. (2010). Of Kindred Spirits and History. In C. K. Ikwemesi (Ed.), *Re-reading Uche Okeke: Pioneer works, new insights*. Enugu: Art Republic.
- Uka, G. O. (2004). "Four Pioneers of Visual Communication Design in Eastern Nigeria: A Graphic Study. In O. Oloidi (Ed.), *Modern Nigerian Art in Historical Perspective* (pp. 94-103). Abuja.
- Victoria and Albert Museum. A History of Computer Art. Retrieved from <http://www.vam.ac.uk/content/articles/a/computer-art-history/>
- Victoria and Albert Museum. (n.d.). Digital art. Retrieved from <https://www.vam.ac.uk/articles/digital-art>



Whale, G. (2002). Why use Computer to make drawings? In S. Mealing (Ed.), *Computers and Art* (2 ed., pp. 17-32). Bristol: Intellect Ltd.

Notes

- ⁱ In 1997 and 1998 I was a pop artist in training and practice in the popular city of Onitsha, where art served huge needs of the commercial city. This was before I did a Bachelors at the Department of Fine Applied Arts, University of Nigeria Nsukka. I have also interacted with many other pop artists.
- ⁱⁱ Mosco Art, is popular or roadside art enterprise at the university town of Nsukka. I had a personal discussion with the director/owner in June 17, 2015.
- ⁱⁱⁱ Ola Oloidi was an emeritus and frontline professor of Art History at the University of Nigeria, Nsukka. In his lectures he has maintained this position. I was one of his undergraduate students around 2007 and 2008.
- ^{iv} Godwin Uka is a graphic designer and lecturer in the Graphics section of the Department of Fine and Applied Arts, University of Nigeria. He is currently the oldest staff of the Graphics Section. In May 2015 I had a personal communication with him on the strategic history of the section before I came to the Department.
- ^v Godwin Uka...
- ^{vi} Godwin Uka...
- ^{vii} I was already at the Department by this time as a student and I was aware of some of the facts. Having trained as a Desktop Publisher, and having a good level of digital experience prior to this time I helped to guide some of the students in the use of some design software applications and in the production of their works.
- ^{viii} Godwin Uka... (I am aware of this event which allowed selected or interested staff to feature in a workshop organised by the university to train them in 3Ds Max, after which a digital studio of few computers was set up).
- ^{ix} The 2011 and newer editions of the Department's Student Handbook provide more information on the various digital-related courses in Graphics section.