

Extracting Design Concepts from Indigenous Nigerian Pottery using CorelDraw Software as Motifs for Application on Textiles

Alewai Jidai Mamza

Department of Industrial Design, Ahmadu Bello University, Zaria, Nigeria.

Correspondence: mamalewai61@gmail.com; 07038430808

ABSTRACT

Africa is considered as the cradle of civilization, in view of its inventiveness in arts, science and technology. The visual art of native Africa, includes such media as sculpture, painting, pottery, rock art, textiles, masks, personal decoration, and jewelry. The premise of this article is to assess the possibility of using CorelDraw as software for illustration, graphic design, information visualization and pattern drafting. Its versatility as a vector-based imaging tool warrants the use of lines, shapes and colours to create exquisite 2-dimensional designs for application in different areas of industrial design like textiles, ceramics and graphics. For instance, the role colour plays in the ceramic and textile industries are vital to the appreciation of their value in any crafted product.

Keywords: Design Concepts, Indigenous Nigerian Pottery, CorelDraw Software, Motifs for Application on Textiles

Introduction

Africa is considered the cradle of civilization, because of its inventiveness in arts, science and technology. The visual art of native Africa includes such media as sculpture, painting, pottery, rock art, textiles, masks, personal decoration, and jewellery (Hess *et al.*, 2019). The practice of pottery in Africa especially Nigeria is commonly found among the womenfolk. It is in the light of women involvement in the pottery business that Ladi Kwali was discovered by the English Potter Michael Cardew when he came to Nigeria in 1950 (Peters, 2016).

The common shapes of oval and round features are identified among the products of traditional pottery easily produced by the women potters with varieties colours of white, brown, red, grey, yellow and black and this depends on the clay site and is used for domestic, industrial, ceremonial and religious purposes (Abiodun & Akinde, 2014). Symbolically, the oval and the round shape of pots is associated with the qualities of African women such as the face, round chins, round buttocks, round breasts and round tummy during fattening or pregnancy (Peters, 2016). Besides, the surface of the indigenous pottery was embellished with incised decoration of animal, insects, and reptiles, geometric and linear patterns.

Various academic studies have also discovered that traditional pottery has been practised extensively in every culture in Nigeria, though with slight variations in material, forms, styles, techniques, technology, tools, typology and usage of pottery wares (Kalilu *et al.*, 2006, cited in Abiodun, 2018).

Sadly, in this modern era, a lot of the meaning and historical significance of various shapes or motifs is lost to us and can only be conjectured about (Bronwen, 2020). However, extracting design concepts from indigenous Nigerian pottery using CorelDraw software as motifs for application on textiles. Textiles that characterise a particular culture frequently incorporate much of the culture's history and traditions in design, motifs, colours and usage. Such textiles provide a form of social documentation for the culture of which they are a part (Littrell, 1977 cited in Acquaye *et al.*, 2018)

A motif is a core unit or design element which has certain defined characteristics based on a particular style of aesthetics and can be used in textile design to create various repeat patterns. Textile design is simply referred to as the process of colouring, manipulation in interlacement of yarns, transferring impressions of forms and motifs, textures on the surface of a fabric by using different material and adding fine objects as embellishments, to mention a few (Joshi, 2017). The inspirational colours, mood, textures and forms depicted in the indigenous Nigerian pottery can be manipulated to generate motifs for textiles through the use of modern technology like CorelDraw software with the guidance of design elements and principles. Joshi (2017) asserts that a good textile design is about relating suitable elements and principles of design to achieve visually interesting textile product while keeping in view the material, fabric, structure, customer, manufacturing procedure, economics and market trends.

CorelDraw is an integrated vector-based program that makes it easy to create professional artwork like logos, patterns, complimentary cards, wedding cards, invitation cards and so forth (Gan, 2015 cited in Baba *et al*, 2017). It can reshape and connect control points, or nodes that allow users to create artwork. Hence, in this present study an attempt was made to extract design concepts inspired from indigenous Nigerian pottery using CorelDraw software as motifs for application on textiles.

Design Concepts

Textile designs thrive on original ideas and unique design concepts. Design concepts. A design concept is the core idea driving the design of a product, explained through a collection of sketches, images, and so forth (<https://airfocus.com>). This helps the designers stay on track throughout the creative process, ensuring they create a concept that met their inspired ideas. Design concepts can be developed from the symbols that have been collected from the indigenous Nigerian pottery and then presented artistically through motifs for fabric decoration and design. The aesthetics value of these indigenous pottery designs has well defined in a form of graphic design elements such as lines, colours curves, symbols or motifs. To reflects our inspiration from the graphic elements extracted from the indigenous pottery to create a motif or pattern which is the original idea, various processes or methods need to be followed so we generate a motif or a set of design elements (Joshi, 2017). The development process of a motif encompasses:

1. extracting original symbols
2. Developing design concept
3. creating textile pattern:

Defining the Characteristics of Nigerian Pottery

The practice of pottery in Nigeria is commonly found among the womenfolk and most of the pottery products are produced for industrial, ceremonial and religious purposes (Abiodun & Akinde, 2014). The common shapes of oval and round features are identified among the products of traditional pottery easily produced by the women potters. Symbolically, the oval and the round shape of pots is associated with the qualities of African women such as the face, round chins, round buttocks, round breasts and round tummy during fattening or pregnancy (Peters, 2016). Besides, the surface of the indigenous pottery was embellished with incised, impressed or stamped decoration of animal forms, geometric and linear patterns (Franke & beck, 2017) with varieties of colours of white, brown, red, grey, yellow and black (Abiodun & Akinde, 2014)

Symbolic meaning and philosophy of graphic elements of Nigerian pottery

The traditional symbols of Nigerian pottery are believed to represent magical protection against adversity and the evil eye and are also believed to possess healing capabilities (Awogbade & Ikechukwuthe, 2010). Indigenous textiles are mainly handcrafted with symbolic meanings and aesthetic qualities which could attract tourists who come into the state with their purchasing power which in turn could promote local enterprise and boost the economy especially when the World Heritage Festival "Osun Osogbo is being celebrated (Marafa, 2011 cited in Bamidele, 2013).

What is the Nigerian Textile?

Nigeria, Africa's second-biggest economy had once a prosperous textile industry till the mid-1980s. Before 1985, the export of textile products, just as other manufactured exports in Nigeria was remarkable. The textile sector had an annual growth rate of 67 per cent (Mohammed *et al.*, 2018). The Nigerian Textile Industry used to be the largest employer of labour, second to government and has always been a major player in the manufacturing sector of the economy (Owen *et al.*, 2016). Mohammed *et al.* (2018) affirm that the causes of the textile industry's decline are predominantly caused by policy neglect besides that a range of local and global policy measures also contributed to the situation it is in today. The challenges currently facing the industry are multifaceted and the need to revive Nigeria's textile sector to boost the economy cannot be overemphasised. Epan (2010) which states that indigenous textiles depict the Nigerian Cultural heritage and have been the major medium of artistic expression that has provided contemporary Nigerian art with the glory of its cultural past which reflect values and symbol of the area and help the tourist to keep the memory of the place visited.

Characteristics of Nigerian textile

Nigerian indigenous textile designs are representative of traditional symbols of Nigerian society. They developed symbols from the cultural landscapes, natural objects, insects, animals reptiles and geometrical shapes. It is these symbols that have been collected from various ethnic groups and then presented artistically through patterns for fabric decoration and design (Debeli, 2013). Subsequently, these graphics elements are transformed and embedded in fabrics. The aesthetics value of these Nigerian textile designs has well-defined in a form

of graphic design elements such as colours, lines, curves, textures, symbols or motifs.

The use of colour, motif and symbolic design on the indigenous textiles-design, depict the cultural heritage of Nigerian people. Textile products are useful in the areas of dancing costumes of vibrant, aesthetically pleasing colours, designs and motif that portray the artistic heritage of Nigeria (Gardzinska, 2012 in Bamidele *et al.*, 2013). Epand (2010) asserts that indigenous textiles depict the Nigerian Cultural heritage and have been the major medium of artistic expression that has provided contemporary Nigerian art with the glory of its cultural past which reflect values and symbol of the area and help the tourist to keep the memory of the place visited. The textiles are mostly used for festivals, weddings and religious purposes.

Symbolic Meaning and Philosophy of Graphic Elements of Nigerian Textile

The word symbol is anything that is used for the identification of attributes, or meaning of an object beyond its actual character, shape, form, colour and use (Veenu *et al.*, 2016). The graphic elements of Nigerian textile represent concepts and beliefs personified in insects, reptiles, animal forms, floral and geometric shapes. Enjoyed as aesthetically appealing designs, that symbolically communicates knowledge, thoughts, believes and values of the people. Traditional symbols and motifs are those characters, figures or graphic elements used to represent an idea, thought or belief (Awogbade & Ikechukwu, 2010). It is these graphic elements in their association with the textiles that make motifs in the Nigeria textiles philosophy, quite significant (Omatseye & Emeriewen, 2012).

Aesthetic and Philosophical Significance of Using Graphic Elements found in Pottery for Textile Embellishment

The main function of design is to regularly create visually aesthetical and functional solutions for our day to day life. To express these visual aesthetics, both design and the graphic designer need to apply the elements and principles of design in an organized manner (Joshi, 2017). Ceramics and Textiles are areas of industrial design that focus on the effective use of motifs in different forms for aesthetic and utilitarian purposes appreciated by the users. Both serve as a reserve for the cultural heritage of a people and have economic, political, social, religious and utilitarian value in the society (Egware & Peters, 2016). However, using graphic elements found in pottery for textile embellishment would give a sense

of rhythmic repetition of motifs with an appropriate application of the elements and principles of design on textiles that are visually appealing and aesthetical. Besides, it will help to protect and preserve the Nigerian culture and belief (Awogbade & Ikechukwu, 2010).

CorelDraw, a Software used for creating Vector-based Illustrations and Graphic Design Images

CorelDraw is a vector graphics developed and marketed by Corel Corporation. It is an intuitive versatile graphics application for creating high-quality vector illustration, logo designs, pattern designs and page layout (CorelDraw, 2020). CorelDraw is among the two dimensional (2D) graphics software packages for Computer-Aided Design (CAD). It allows designers to develop different geometrical designs, floral designs; human and animal figure designs in less time without wastage of raw material only because of computer (Saini *et al.*, 2018). Lopez (2007) asserts that it offers all the tools a designer needs to create professional fashion and textile designs. Adapting CorelDraw in extracting indigenous motif following the design elements and principles will result in innovative and creative pattern in less time for application on textiles.

METHODOLOGY

The inspired graphics elements found in the Nigerian indigenous pottery were collected through a literature survey, a total of four symbols were purposively sample and developed into motifs using CorelDraw software for application on textiles.

Extracting Graphics Elements from Nigerian Pottery for Application on Textiles

The process of extracting the inspired graphics element on indigenous pottery involves three phases:

1. Extracting the graphics elements
2. Developing the graphics elements into a motif
3. Patterns generation for application on textiles.

Phase I: Extracting the graphics elements

Four symbols from the inspired indigenous Nigerian pottery were selected for the study. The symbols were identified as butterfly, lizard, chameleon and Praying mantis with various shapes and lines surrounding them as an embellishment on the pottery. See Figures I-IV:

Phase II: Developing the Graphics Elements into a Motif

Inspiration is taken from Indigenous Nigerian Pottery to develop the design concept.

The extracted graphics elements from the inspired Nigerian indigenous pottery were developed into motif using CorelDraw and repeated with shapes, colours, textures and lines to form a suitable pattern for a textiles design (See Figures V to XVI).

The motif in figure VI was designed on CorelDraw through the use of the metamorphosis process. Metamorphosis is a process that combines different graphics elements transforming each of them and combining them as one. Subsequently, the motif is repeated to create a pattern. See example in Figure VII:

Phase III: Patterns Generation for Application on Textiles

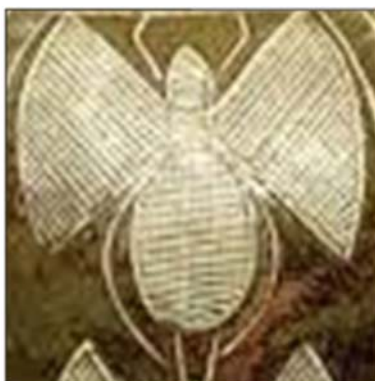
The developed pattern of figure VII was created through the repetition of motif vertically and horizontally to create a mirror repeat pattern suitable for application on textiles. Light blue to complement the orange colour of the motifs were used and

balanced with the background of dark shades of brown and orange texture to give a sense of aesthetic value and appreciation. Few colours were applied to create more versatile patterns. The fewer the colours, the lower the production cost on the fabric will be (Lopez, 2007)

Brick repeat is also referred to as tile repeat and is another simple kind of repeat that follow, same fundamental as vertical half-drop repeat, except that, in brick, repeat the placement of design motif is side-ways either on left or right and in the second row the motif shifts halfway across in horizontal direction.

The pattern of figure in figure XIII was developed following the same process as that of figure VII. The motif was repeated vertically and horizontally to create a mirror repeat pattern suitable for application on textiles.

The developed pattern of figure XVII was also created through the repetition of motif vertically and horizontally to create a mirror repeat pattern suitable for application on textiles.



(www.google.com)

Figure I: Butterfly symbol on indigenous pottery



(www.google.com)

Figure II: Lizard symbol on indigenous pottery



Figure III: Chameleon symbol on Indigenous pottery
(www.google.com)



Figure IV: Praying mantis symbol on Indigenous pottery
(www.google.com)

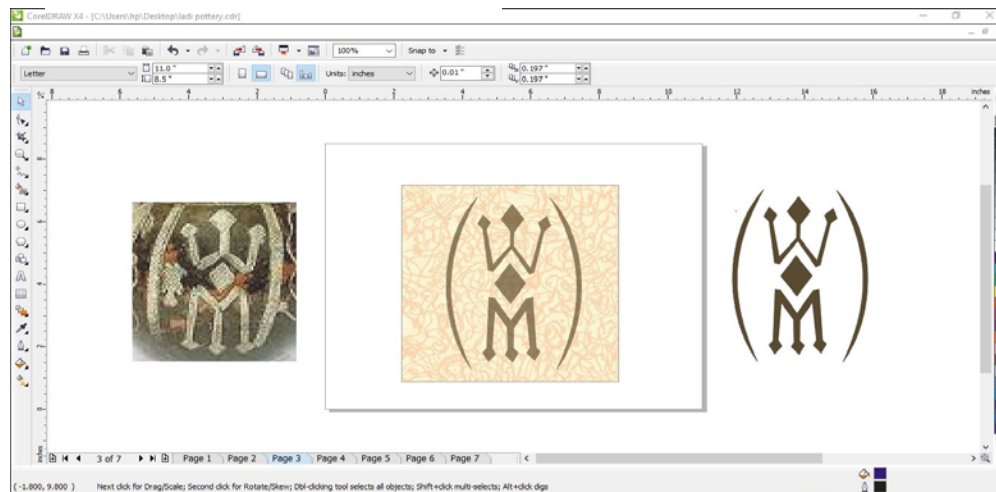


Figure VIII: Original indigenous symbol, developed motif and extracted graphics elements on CorelDraw software



Figure VIII: Original Indigenous symbol



Figure IX: developed motif from graphics elements

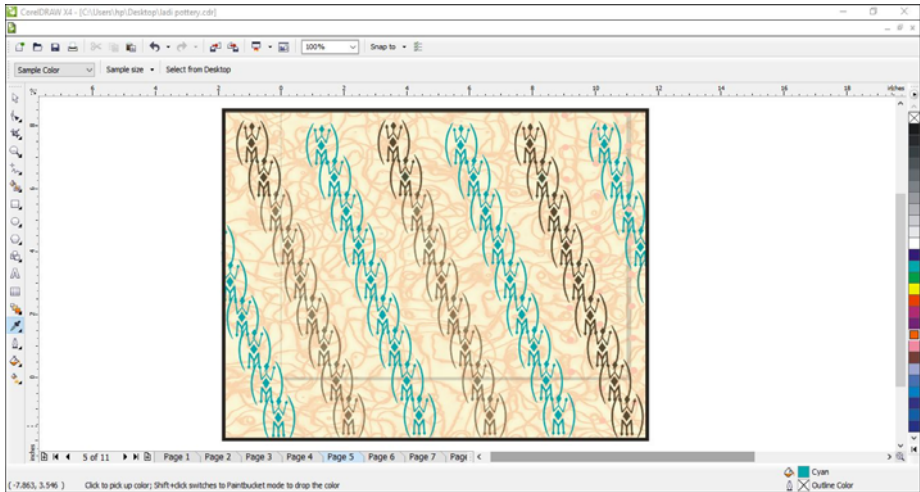


Figure X: Developed brick repeat pattern from extracted graphics elements on indigenous Nigerian pottery

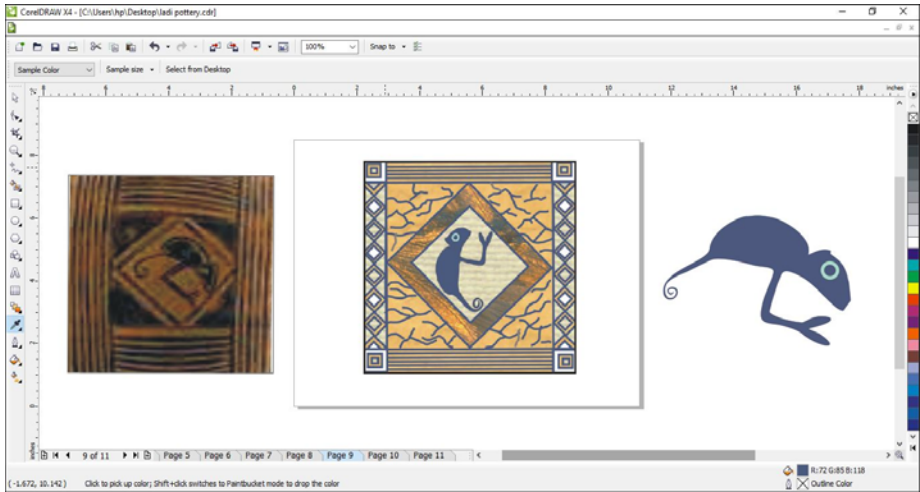


Figure: XI: Original indigenous symbol, developed motif and extracted graphics elements on CorelDraw software.



Figure XII: Original Indigenous symbol



Figure XIII: Developed motif from graphics elements.

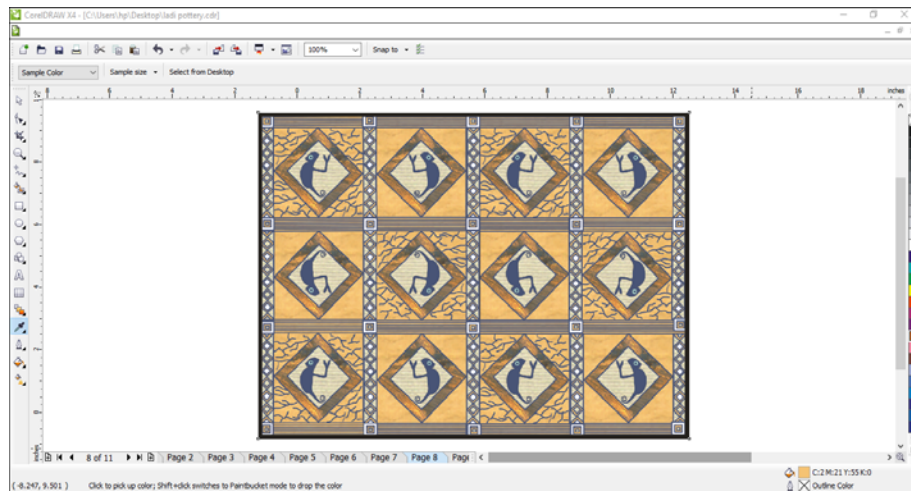


Figure XIII: Developed Mirror repeat (mix-vertical & horizontal) pattern from extracted graphics elements on indigenous Nigerian pottery

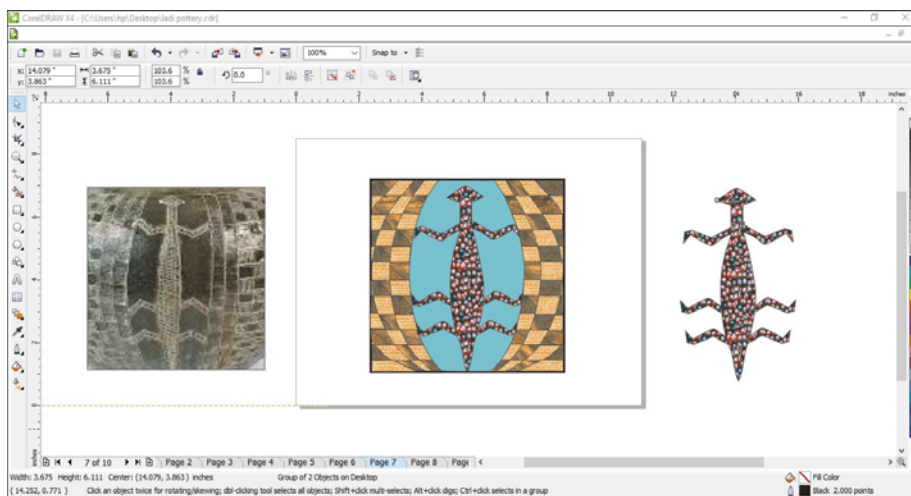


Figure XIV Original indigenous symbol, developed motif and extracted graphics elements on CorelDraw software



Figure XV: Original
Indigenous symbol

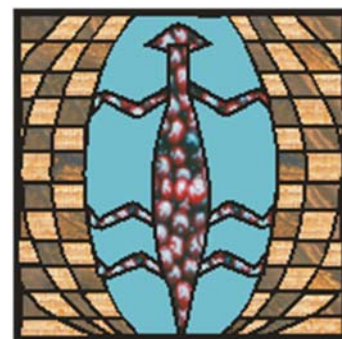


Figure XV1: Developed
motif from graphics
elements

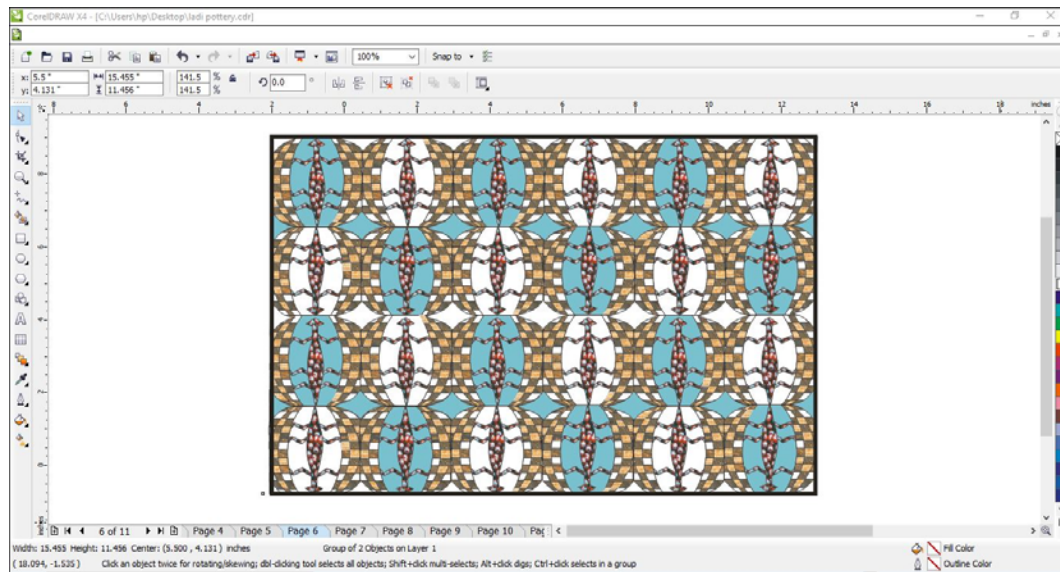


Figure: XVII: Developed Mirror repeat (mix-vertical & horizontal) pattern from extracted graphics elements on indigenous Nigerian pottery

Conclusion

The study has been an exploratory one to extract design concept from indigenous Nigerian pottery using CorelDraw software as motifs for application on textiles. This study further identified some inspired graphic elements from Nigerian pottery. The graphics elements found on this pottery have interesting shapes, lines and textures that have been presented without considering the elements and principles of design. The collected graphics elements from indigenous pottery were manipulated and then presented artistically through motif to create a pattern. It is evidence the versatility of CorelDraw software as a vector-based imaging tool warrants the use of lines, shapes and colours from pottery to create exquisite 2-dimensional designs for application on textiles. It is important to note, the same motifs in ceramic wares could be used on textiles design by considering the elements and principles of design. Both create surface pattern designs from sourcing inspiration from indigenous symbols and creating repeat patterns on fabrics and wares. They often document the historical and symbolic past and also serve as a reference point to the world.

References

- Abiodun, S.O. & Akinde, T.E. (2014). *Transfer as an Alternative to Direct Drawing in Yoruba Hand Built Pottery*, International Journal of African Culture and Ideas, **14** (1&2), pp. 169-186.: <http://www.makingsocietycommodellingclay.com>. April, 3, 2021.
- Acquaye, R. Sawyerr, N. O. Kusi, C. A. (2018). From Tradition to Innovation: Indigenous West African Textiles in Creative Interior Application. *American Journal of Art and Design*. Vol. 3, No. 2, 2018, pp. 18-25. <http://www.ajoad.org/article/106/10.11648.j.ajad.20180302.11>. April 3, 2021.
- African patterns (2020). <https://www.contemporary-african-art.com/african-patterns.html>. April 14, 2021.
- Awogbade, M., Ikechukwu, I. (2010). *The Use of African Art Symbols and Motifs: Study of some selected Paintings of Tala Wewe*: LAP LAMBERT Academic Publishing GmbH & Co. KG Dudweiler Landstr. 99, 66123 Saarbrücken, Germany.
- Baba, J, Gwari, W. B, and Sale, P. (2017). The Effectiveness of Computer in Decision Making in Ahmadu Bello Printing Press Limited. *Maiduguri Journal of Arts and Design*.
- Bamidele T. A. & Yusuf, T. G. (2013). Nigerian Tourism Development: The Role of Indigenous Textile Sector: *International Journal of Excellence in Tourism, Hospitality & Catering*, ISSN: 1993-8683, Vol. 6, Issue 1&2: <https://www.researchgate.net>. April 9, 2021.
- CorelDraw (2020). User Guide. www.Corel.com/patent. April 17, 2021.
- Cyril-Egware, P. I. Peters E. E. (2016). Design and its Application in Ceramics and Textiles:

- Similarities and Divergences. *International Journal of Innovative Research & Development*, Vol. 5 Issue 8: www.ijird.com. April 9, 2021.
- Debeli d., Yuan L.1, b, Jiu, Z, (2013). African Textile Design and Fabric Arts as a Source for Contemporary Fashion Trends. *2nd International Conference on Science and Social Research*.
- Epand, V. (2010). The Techniques Used in Batik Art, Batik: <http://yositsmita.blogspot.com/techniques-used-in-batik-art-by-victor.html>. April 5, 2021.
- Joshi, V. (2017). *Elements of Textile Design: Textile Science Text Book Class XI: The Secretary, Central Board of Secondary Education, Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110092*.
- Kalilu, R.O.R., Akintonde, M., & Ayodele, O., *Ceramics: Art and Technology in the 21st Century South Western Nigeria*, Pemilter, Agege, Nigeria.
- Mohammed, M. Buba R, Yusuf, H. A., Gold, K. L. (2018). Nigerian Textile Industry: Evidence of Policy Neglect, *SARJANA* Vol. 33, No. 1, pp. 40-56 <https://www.researchgate.net/publication/2886128>. April 8, 2021.
- Omatseye, B. J. O. & Emeriewen K, O. (2012). An Appraisal of the Aesthetic Dimension to the African Philosophy of Cloth. *Journal of Language, Technology & Entrepreneurship in Africa* Vol. 3. No. 2 Vol. 3. No. 2: <https://www.ajol.info>. April 9, 2021.
- Owena, M. M., Ogunleyea, C. O. & Orekoyab, E. O. (2016.). The Nigerian Textile Industry: An Overview. *Nigerian Journal of Polymer Science and Technology*, 2016, Vol.11, pp99-108 ISSN: 1119-4111 <https://www.researchgate.net/publication/346399442>. April 5, 2021.
- Lopez A. M. (2007). Textile Pattern Design. <http://yocorel.files.wordpress.com>. April 17, 2021.
- Peters, E. E. (2016). Implication of Early Pottery Practice by Women in Nigeria: A Focus on Women Pottery Practice in Akwa Ibom State. *International Journal of Scientific and Research Publications*, Volume 6, Issue 9, September: www.ijsrp.org. April 14, 2021.
- Saini, N. Yadav S, Rose, M. N. (2018). Fabric Designing for Product Development by Combination of Weaves through CAD. *Journal of Textile Science & Engineering*, Volume 8. Issue 2. doi: 10.4172/2165-8064.1000343
- Veenu, Charu, K, Renu, B. (2016). Sharma3 Symbolic motifs in Traditional Indian Textiles and Embroideries. *International Journal of Research in Economics & Social Sciences* Volume 6, Issue 3. (ISSN 2249-7382): <http://www.euroasiapub.org>. April 9, 2021.