NEW PERSPECTIVES IN CERAMICS FOR INDUSTRIAL DESIGN WITH ADAPTATION FROM AROCHUKWU TRADITIONAL MOTIFS

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Abstract
Arochukwu is historic in Igboland. It is one of the cities of old in the southern protectorates of Nigeria that was conquered by the British colonial government. Noted for its great historic and cultural sites that includes gardens, beautiful streams, traditional architectural reserves, traditional festivals and shrines, the Ubini-ukpabi mythic juju shrine was highly revered for its rich cultural traditions of symbolic art, many of which are derived from plants and man-made objects. Some of the motifs are cosmic in form while others are secular with highly concentric geometric shapes. The paper on New perspectives on ceramics for industrial design with adaptation from Arochukwu traditional motifs aims to introduce some of these Aro outstanding motifs as decorative designs on modern pottery is a way to foster continuity both in the Aro world view and in modern pottery generally. In this way ceramic ware of home use such as teapots, jugs, saucers, casseroles, etc., will begin to have a new perspective of appreciation and function, particularly as distinct from what is today popularly recognized in the English or China wares tradition. Some excellent examples of motifs of Arochukwufor this characterization of appropriation are Akwukwu-akpu (cassava leaf), Isi-nwoji (head of kola nut), Isi-efi (bull skull), Ukwu-efi (bull leg), Ngwele (lizard), Mbe (tortoise), Nchi (grass cutter), Ego (cowry), Anya-ego (eye of cowry), and Anyawu (sun). The design approach adopted for this paper, for all intent and purposes is drawn directly from the principles of design development format which begins with the concept development, sketch drawings to highly technical drawings of prototypes through to ergonomic form. This is the basis of industrial design Arochukwu is an important historic place in Igboland. It is one of the cities of old in the southern protectorates of Nigeria that was conquered by the British colonial government. Noted for its great historic and cultural sites that include well cultivated gardens, beautiful streams, traditional architecture, forest reserves, traditional festivals and shrines, and the long juju mythical shrine known as Ubini-ukpabi, it was then highly revered for its rich cultural traditions of symbolic art, many of which were derived from plants and man-made objects. Over the years there has been a neglect of the values and interest generated in the art and traditions of the people of Aro. This can be understood from the perspectives of western influences of the conflicts between African traditional religious worship and Christianity that engulfed all of Igbo land since the coming of Europeans. But taking into account of the importance of how the Igbos have evolved with time and their culture hinged on the development of the major crafts of basketry, weaving and pottery a few of the earlier arts, the need for continuity and preservation of these cultural elements become significant in contemporary Nigerian ceramics as a form of identity which this study aims to achieve.

Introduction

Arochukwu is an important historic place in Igboland. It is one of the cities of old in the southern protectorates of Nigeria that was conquered by the British colonial government. Noted for its great historic and

cultural sites that include well cultivated gardens, beautiful streams, traditional architecture, forest reserves, traditional festivals and shrines, and the long juju mythical shrine known as Ubini-ukpabi, it was then highly revered for its rich cultural traditions of symbolic art, many of which were derived from plants and man-made objects. Over the years there has been a neglect of the values and interest generated in the art and traditions of the people of Arochukwu. This can be understood from the perspectives of western influences of the conflicts between African traditional religious worship and Christianity that engulfed all of Igbo land since the coming of Europeans. But taking into account of the importance of how the Igbos have evolved with time and their culture hinged on the development of the major crafts of basketry, weaving and pottery a few of the earlier arts, the need for continuity and preservation of these cultural elements become significant in contemporary Nigerian ceramics as a form of identity.

The purpose of this paper therefore is to highlight the living art and craft traditions of the Aro people basically through the design elements and motifs which are significantly declining. Nevertheless, emphasis is geared towards a design process that would highlight the elements and motifs to achieve recognizable global best practices in industrial designing and production of ceramics wares. Some of the critical motifs of importance include the following: Akwukwu-akpu (cassava leaf), Isi-nwoji (head of kola nut), Isi-efi (bull skull), Ukwu-efi (bull leg), Ngwele (lizard), Mbe (tortoise), Nchi (grass cutter), Ego (cowry), Anya-ego (eye of cowry), and Anyanwu (sun).

As a way to establish a relationship and need or otherwise of popular ceramic wares available in today's market with the designs been projected, the paper attempts to explore or perhaps embellish some selected pottery wares in the form of teapots and cups, jugs and casseroles with motifs that are selected from the Aro civilization as decorating formats on these wares. It is believed that this will create the desired identity. The design approach adopted is the design development principles that begin from concept development of sketch drawings to highly technical drawings with the resultant finishing as prototypes of ergonomic form which is the basis of industrial design.

A Brief History

The Aros otherwise known as Umuchukwu (children of the supreme God and custodian of great Chukwu of Arochukwu - Ubini Ukpabi) have a rich cultural tradition that is focused on art, craft and religious festivals. Their art traditions are diverse because of the numerous festivals and ceremonies that the people practiced. They have very strong desires to create indigenous identity by acculturating traditional life into pottery. While the history of the Igbos and their cultural life have been discussed extensively by scholars in Crowder, (1968) and Afigbo and Okeke (1985) in historical contexts, migration, art and culture, it is not out of place that references to issues of communication with respect to form of spoken and unspoken language are clear testimony of how a people have organized their existence in accordance to their development patterns. The pictographic writings introduced to overcome such problem of communication as acted out became a form of unspoken language with body movement. Ali (2000) recognizing the signal importance of the articulation of mediums of communication and identity observed that form of identification, public notices, decoration of taboo and decoration of pottery wares could become such transmissible vehicle for such symbolic representation.

The Ekpe Society is not the highest and the most powerful societies in Arochukwu but its influence was felt more because of its elitist and judicial functions in clan matters. Its authority was a device to knot the Arochukwu clans together. Ekpe is generally personified as a wise old deity, *Ego* and also used as a symbol of money. The meaning content of the symbol on the body of an Ekpe initiate as well as the Umu Aro cloth worn by the initiate is a testimony to the secrecy taught only to the initiates. These also form the code signs known only to initiates.

From available oral information provided by Mazi Samuel, Arochukwu people used different colours to make decorations from white clay (Nzu). This is used partly for women's body decoration during traditional

marriage and for Ekpe initiation rites. Often, black is created from charcoal, red from cam wood tree and yellow from either soil or tree barks. These colours can be introduced into contemporary pottery for beautification and documentation by incisions, combing, engobe and painted form. Sometimes it could also be done by spray decoration.

In summary, there is no gain saying the fact that taking into account the historical development of the Aro people, adapting these motifs for ceramics design will not only highlight and propagate the values inherent in the art tradition of the people but would increase the sustainability of industrial potential of the pottery tradition. Hence, it is important that these motifs are applied on table wares used on day to day basis. This is because all the motifs are derived from plants, animals and man-made objects that can be found in the Aro environment. They equally make up Aro worldview. These motifs reflect the people's cultural values as they have long been the medium of sacred communication among the male cult societies of the Arochukwu people in the south-eastern part of Nigeria.

Design as Element and Principles of Industrial Design

Arthur Wesley Dow provides us with a leading discourse on what the artist works portends in life by using line, value, and color in a composition of what we may describe as art. To him, these elements create symmetry, repetition, unity, transition and subordination. It can be safely said that all these elements can be controlled by the artist or designer to achieve harmonious relationships. This is why scholars of design have pontificated that the principles of organization or design consist of harmony, variety, balance, proportion, dominance, movement and economy.

The elements of art as line, shape, value, texture, movement, rhythm and color can be applied to the principles of organization that creates space for the unity of an art work. To stretch the argument further is the term industrial design.

The term 'Industrial design' connotes the use of both applied art and applied science which is to improve on aesthetics, design, ergonomics and functionality and/or the usability of a product, as this can also be used to improve the product's marketability and production. The role of an industrial designer is therefore to create and apply design solutions for problems solving which is attributable to form, brand development, functionality, physical ergonomics, marketing and sales.

Industrial design can overlap significantly with engineering design. In different countries of the world the boundaries of the two concepts can vary, but in general knowledge engineering focuses principally on functionality or usability of products whereas industrial design focuses principally on aesthetic and user friendly interface of aspects of the products. In many areas this distinction is effectively defined by credentials and/or licensure that require engaging in the practice of engineering. As such Industrial design does not overlap with the engineering sub-discipline of industrial engineering, except for the latter's sub-specialty of ergonomics.

The term ergonomics is often attributed to the industrial designer, Joseph Claude Sinel in about 1919. However, it is doubtful if Sinel himself accepted originating the discipline. But it is on record that the discipline predates 1919 by at least a decade. Christopher Dresser is however considered the world's first industrial designer. The origin of Industrial design lies in the industrialization of consumer products. For instance the Deutscher Werkbund, founded in 1907 and a precursor to the Bauhaus was a state-sponsored effort to integrate traditional crafts and industrial mass-production techniques. It was to put Germany on a competitive footing with England and the United States.

Industrial design deals with function and form. It connects between the product, the user and the environment. Generally, industrial design professionals work in small scale design, rather than overall design of complex systems as architectural buildings or ships. Industrial designers do not usually design motor cars, electrical circuits, or gearing that make machines to move as generally conceived by people but they may affect technical aspects through usability design and form relationships. Usually, they

work with other professionals such as marketers to identify and fulfill customer needs and expectations. Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize function, value and appearance of products and systems for the mutual benefit of both user and manufacturer.

The Design Process

Although the process of design may be considered creative, many analytical processes also take place. In fact, industrial designers often use various design methodologies in their creative process. Some of the processes that are commonly used are user research, sketching, comparative product research, model making, prototyping and testing. These processes are best defined by the industrial designers and/or other team members. Industrial designers often utilize 3D software, computer-aided industrial design and CAD programs to move from concept to production. They may also build a prototype first and then use industrial CT scanning to test for interior defects and generate a CAD model. From this the manufacturing process may be modified to improve the product.

Product characteristics specified by industrial designers may include the overall form of the object, the location of details with respect to one another, colors, texture, form, and aspects concerning the use of the product. Additionally they may specify aspects concerning the production process, choice of materials and the way the product is presented to the consumer at the point of sale. The inclusion of industrial designers in a product development process may lead to added value by improving usability, lowering production costs and developing more appealing products.

Industrial design may also focus on technical concepts, such as in products and processes. In addition to aesthetics, usability, and ergonomics, it can also encompass engineering, usefulness, market placement, and other concerns—such as psychology, desire, and the emotional attachment of the user. These values and accompanying aspects that form the basis of industrial design can vary between different schools of thought and among practicing designers. This paper focuses its attention on the former, i.e., which is that, it highlights the very basis of aesthetics, usability, ergonomics and possibly marketing of the product. The highly technical aspects of engineering are beyond the scope of this paper for now.

The Arochukwu Traditional Motifs

There are different types of motifs that exist in Arochukwu tradition. For the purpose of this paper, a few number of tableware and other utilitarian products such as tea-set, teapot, jugs, saucer, open bowls and casseroles are presented to show the infusion of tradition of the Arochukwu people with modern ceramic wares(See figures 11 – 22). The attempt is also to show how these can bring about a new fusion of aesthetics and function in a new environment. It is also an effort show applied art or applied science can be adapted to improve on design aesthetics, ergonomics, functionality, and usability of the product; and how best this can be interpreted in an effort to improve on the product's marketability and production mechanism. The following are the elements and motifs.

Akwukwo-Akpu (cassava leaf) - the two motifs derived from cassava leaf is represented in the form of a crucifix or counterfoil (See Figure 1). One of the two motifs is shaded while the other is not. Cassava is one of the important staple foods in Arochukwu land. The four segments of the motifs also suggest the four market days known in the land.

Isi-Nwoji (head of kolanut) - the motif that represents the head of kolanut is shown in the two forms; the first is four extended angular shapes with four pointed ends while the second is the first except that it contains smaller repetitions of angular shapes in the insides of it, the motif emphasizes its importance in Arochukwu land (See Figure 2).

Isi-Efi (Bull Skull) - It has two large eyes, two elongated or projecting horns, a nose and a small square shaded shape that represents the mouth, the bull is among the domestic animals in Arochukwu (See Figure 3). Bull skull usually hangs on shrine walls and inner chamber of a titled man is in recognition of

his status. The bull skull motifs when used on traditional wall, carved doors and panels symbolize achievements and authority.

Ukwu-Efi (Bull leg) - Ukwu-Efi is the shape or motif produced by the four legs of a bull while in a resting position (See Figure 4). The motif is in the form of a checker board or an arrangement of diamond forms; the motif also stands for leadership, authority and achievement.

Ngwele (Lizard) - The lizard motif is highly abstracted with triangular or diamond shaped head. Its feet and legs are chevron in shape with dots around their ends, while its stomach is represented in concentric circles (See Figure 5). Its tail is in the form of a tiny line in wave-like form.

Mbe (Tortoise) - the motif that represents the tortoise is shown in the form of real tortoise shape with small attachments at the angles that serves as the head, legs, arms, and tail (See Figure 6). The tortoise is used for ritual or charms in Arochukwu because it is believed to be very effective for such purposes. The tortoise shell is sometimes used as a container for ritual objects. Arochukwu also believe that the tortoise lives longer than many other animals. The tortoise motif is therefore regarded as a symbol of wisdom and long life.

Nchi (Grass-cutter) - The grass cutter is one of the small animals found in Arochukwu (See Figure 7). It is also consumed as food. It is regarded as a clever animal because it runs very fast. The motif derived from grass-cutter is almost the same as its shape in real life, except for lack of details such as derived eyes, legs, hands and ears.

Ego (cowry) - The cowry shell motif is represented in two variable parts. One is an oval shape depressed on both sides and joined together in the middle through stitching while the other is a disc shape with zig-zag edges placed vertically (See Figure 8). Ego served as currency or a means of exchange during pre-colonial era in Nigeria. It is usually very fitting design motif for walls decorations of carved doors and panels. It also connotes wealth.

Anya-ego (cowry) -is also rendered in many types as one of the peoples design motifs. The first motif is a series of ziz-zag movement found in real cowry shell (See Figure 9). The two other motifs are represented in the middle. The eye of the cowry shell motif is often found on carved door and panels as a symbol of wealth and affluence.

Anyanwu (Sun) - The sun motif is depicted in various shapes such as full circles surrounded by series of small triangles a half circular form surrounded by linear projections (See Figure 10). The sun is regarded as one of the eye of the almighty God that watches over humans by day while the moon at night. Anyanwu motif is a symbol of life in Arochukwu.

Conclusion

Motifs as have been observed have generally played important roles in social identification of different cultures, Arochukwu being a good example. Traditionally, motifs serve as recurrent image identification or theme that artists create for society. More often they use design and colour as motif to enhance the beauty of the work and it is to bring out the identity and document the culture of the people. The advantage of this study is the revelation of the abundance of Nigerian indigenous motif particularly those of Arochukwu in Abia State. The study no doubt will encourage the ceramics industries to continue to employ these new motifs of Arochukwu in their design philosophy and application. At the educational level, professional and school authorities should be encouraged to organize workshops in which they can work together with traditional craftsmen and women in order to add indigenous touch to our ceramics wares. This will also make the ceramics products produced in Nigeria compete favorably with important ones at the global market and safeguard its survival in the 21st century.

It has been that there is need to adapt local motifs in designing modern ceramics products that will carry an indigenous identity and this requires sourcing the appropriate and original motifs. A lot of care and patience are needed in order to acquire these motifs as some of them are regarded as ritual symbols and the preservation of their gods. It

is possible to re-modify these local motifs in any form and still achieve the desired objectives, in other words further abstraction of these local forms while adapting them into modern ceramics can effectively serve as forms of identity and still enhance their aesthetic value.

Lastly, if the above support is implemented it will no doubt go a long way in advancement or revolutionizing modern ceramics design and promote our indigenous art and cultures. This is because they can first be emphasized by the designer(s) as experiments first in the studios and subsequently for mass industrial production. Finally, this study should encourage artists to develop new methods and approaches to ceramics.

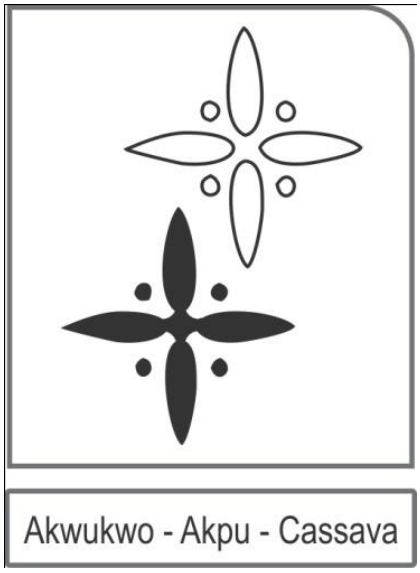

Figure 1: Akwukwo-Akpu- Cassava

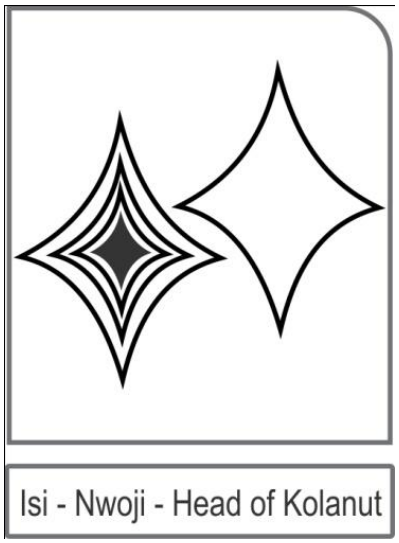

Figure 2: Nwoji – Head of Kolanut

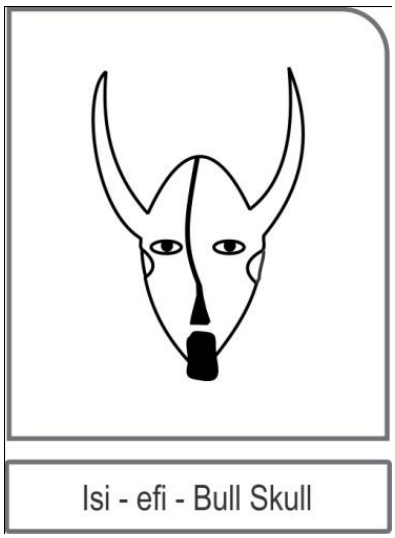

Figure 3: Isi-efi – Bull Skull

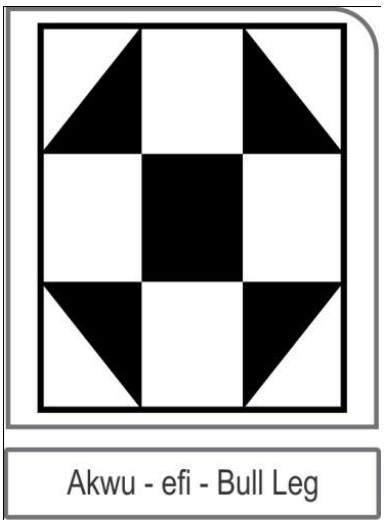

Figure 4: Akwu-efi – Bull Leg

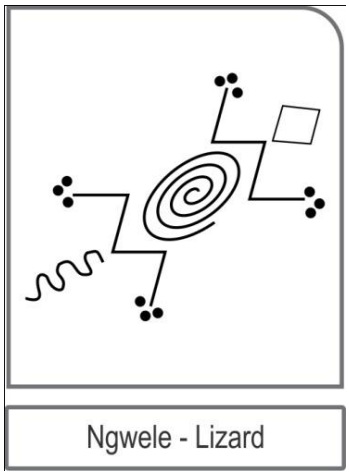

Figure 5: Ngwele – Lizard

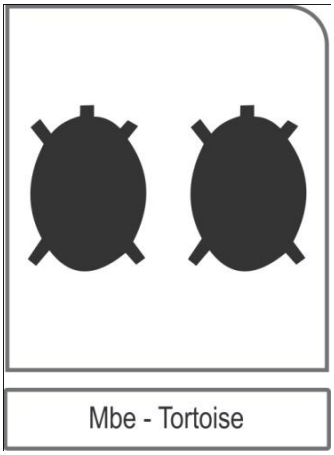

Figure 6: Mbe – Tortoise

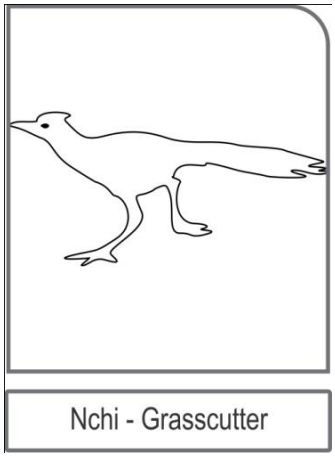

Figure 7: Nchi – Grass-cutter

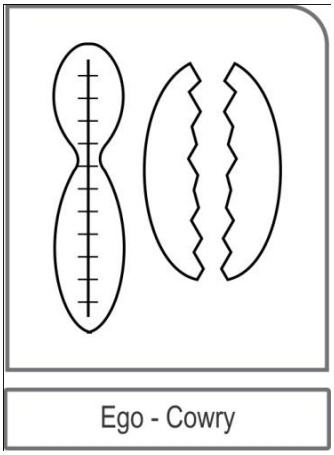

Figure 8: Ego – Cowry

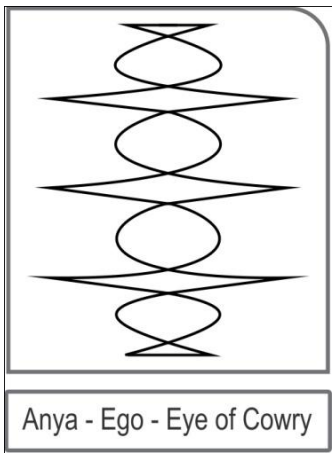

Figure 9: Anya-Ego – Eye of Cowry

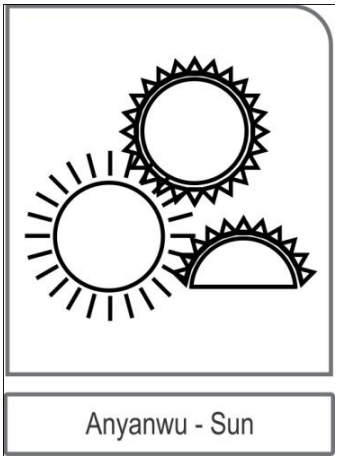

Figure 10: Anyanwu – Sun

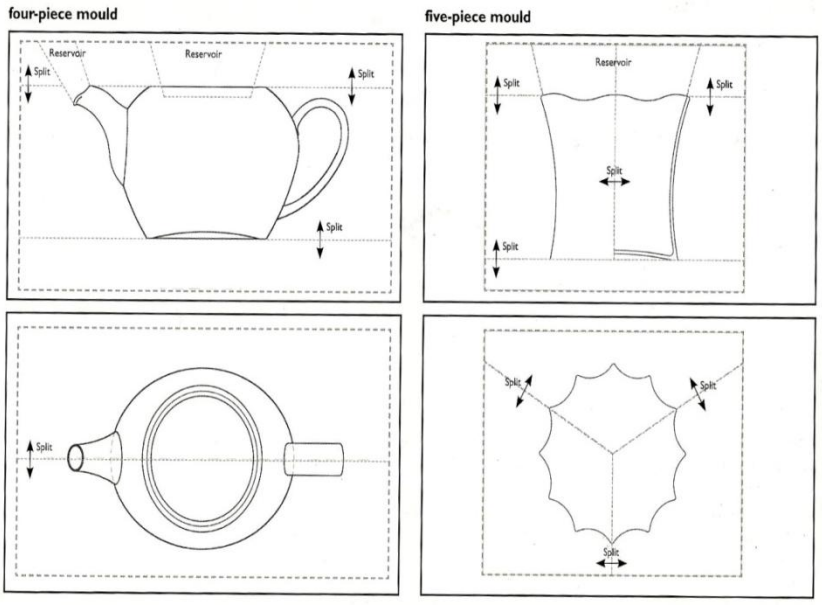

Figure 11: Prototypical concepts of Ceramic Designs and Sketches

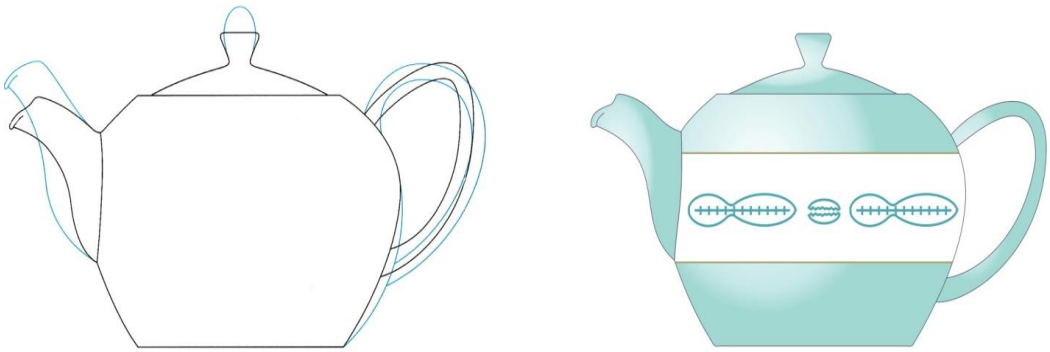

Figure 12: Sketches and final application of Arochukwu motifs into Teapot design (i)

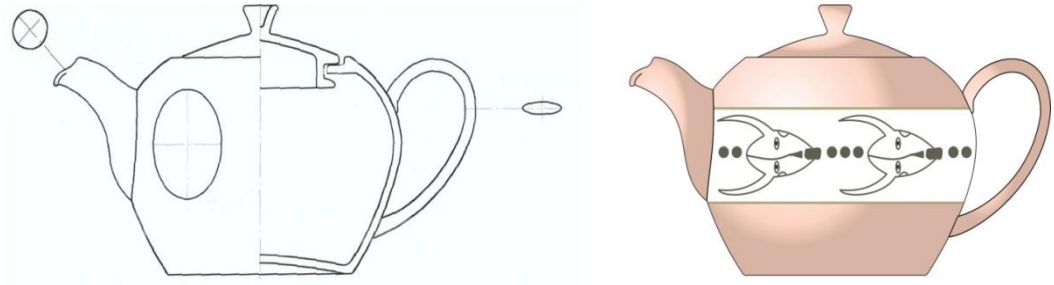

Figure 13: Sketches and final application of Arochukwu motifs into Teapot design (ii)



Figure 14: Sketches and final application of Arochukwu motifs into Teapot design (iii)

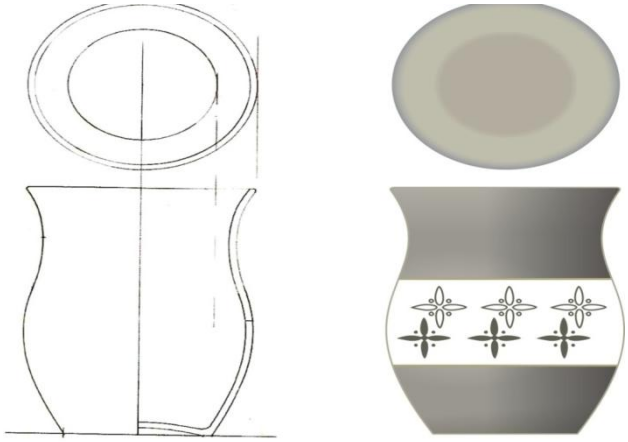

Figure 15: Sketches and final application of Arochukwu motifs into Storage Jar design

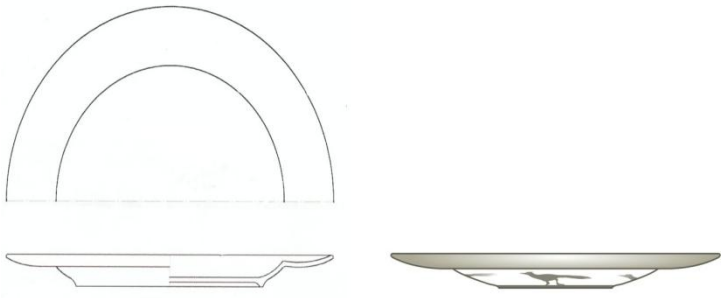

Figure 16: Sketches and final application of Arochukwu motifs into Dinner plate design

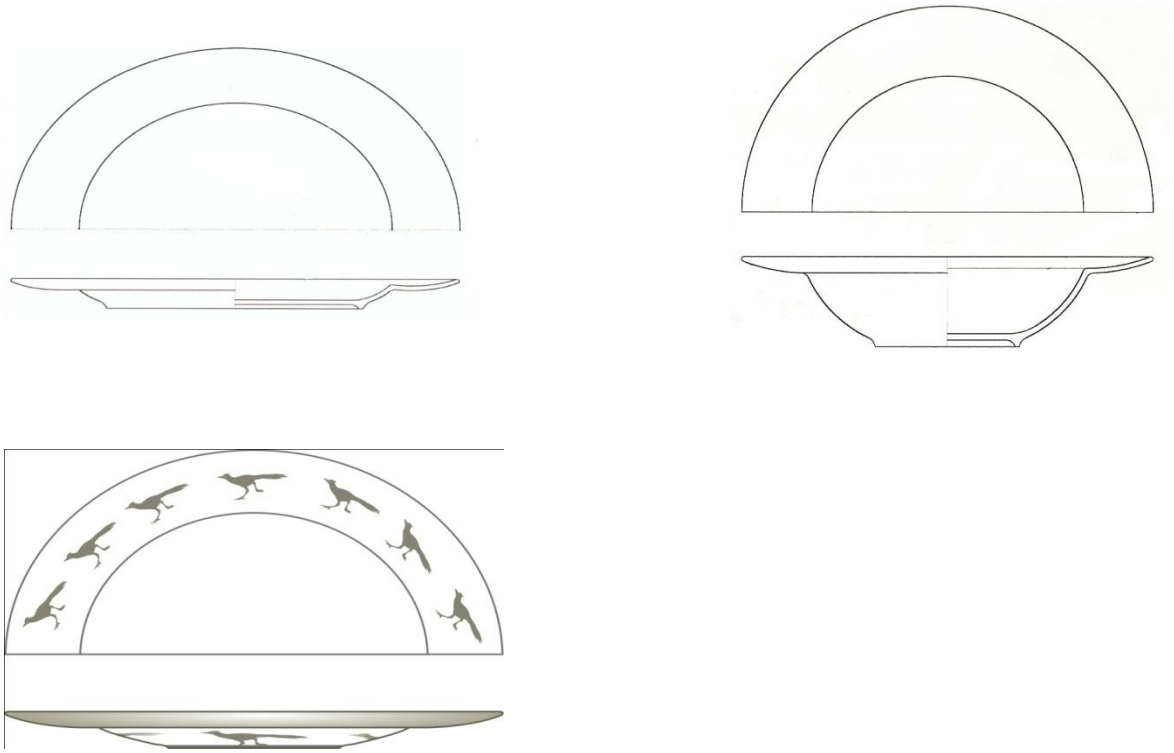

Figure 17: Sketches and final application of Arochukwu motifs into Soup Bowl design

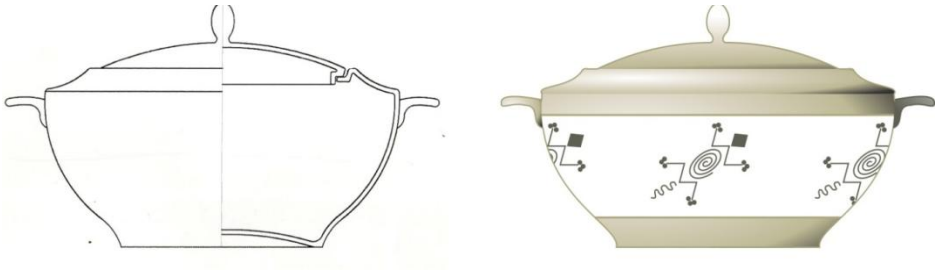

Figure 18: Sketches and final application of Arochukwu motifs into Casserole design

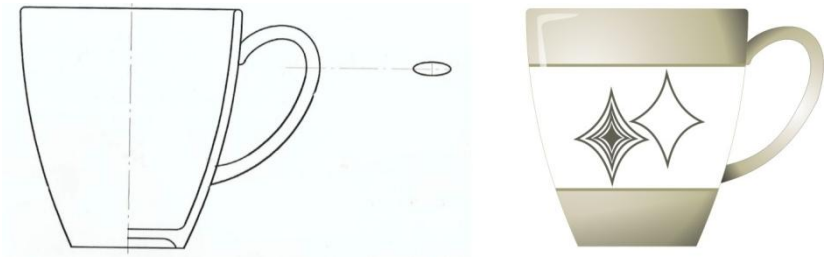

Figure 19: Sketches and final application of Arochukwu motifs into Mug design (i)

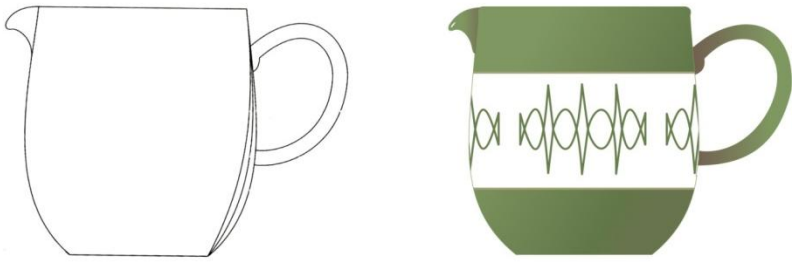

Figure 20: Sketches and final application of Arochukwu motifs into Mug design (ii)



Figure 21: Sketches and final application of Arochukwu motifs into Tea set and Mug design

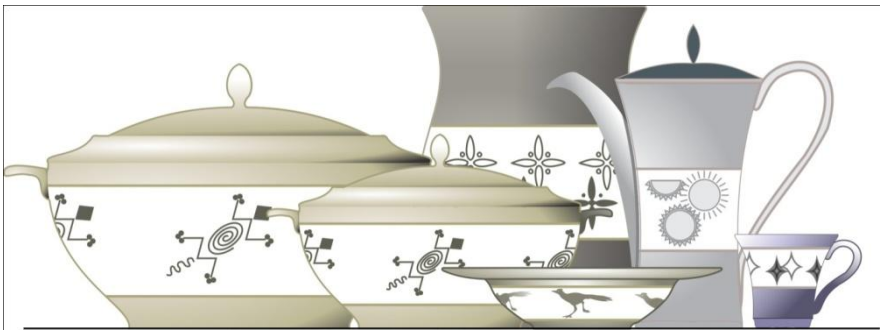

Figure 22: Sketches and final application of Arochukwu motifs into some Tableware design

References

Afigbo, A. E. and Okeke, C.S, *Weaving Tradition in Igboland: History and Mechanism of Igbo Textile Industry.* Lagos: Nigeria Magazine, 1985.

Ali, Vincent, *Igbo Traditional Pottery: Types Forms and Functions* in USO: Nigerian Journal of Art 3, 1& 2, Jan/Dec 2000-2001, pp. 22-32.

Crowder, Michael, *West Africa Under colonial Rule*, Benin City: Ethiope Publishing Corporation (4th Impression), 1976.

de Noblet, J., *Industrial Design*, Paris: A.F.A.A. (1993)

Fiell, P and Fiell, Charlotte, *Design for the 21st Century*, London: Taschen, 2003.

Heskett, John, *Design: A Very Short Introduction*. Oxford: Oxford University Press.

Quinn, Anthony, *The Ceramics Design Course*. London: Thames & Hudson Ltd, 2007

Pevsner, Nicholas, *Pioneers of Modern Design from William Morris to Walter Gropius*. London: Penguins Books, 1975.