

Form and Texture: A Synergy in the Functioning of Pottery Wares

John Jonah Umoh

*Department of Fine Arts and Design, Faculty of Humanities,
University of Port Harcourt, Rivers State, Nigeria.*

Abstract

As in all art areas, the visual elements of design such as line, form, colour, shape, texture and shed are the ingredients put into the work of art while the principles of production, organization or design guide the artist. Though pottery wares were produced just for domestic uses, form and texture contributed in no small measure to the proper functioning of the wares. Over the years, potters have continued to produce wares with little or no attention to form or structure and texture concerning the proper functioning of the wares. Since many beautiful pottery wares have perished due to poor forms or structure and texture, this paper seeks to highlight the roles form and texture play in the proper functioning of pottery wares. With available data from primary and secondary sources, the paper will take a look at form and texture as visual elements of design, their parts in structural design, structural decoration, and decorative design and finally, their contributions to the functioning of pottery wares.

Keywords: *Form, Texture, Synergy, Functioning, Priority*

Corresponding Author: John Jonah Umoh

Background to the Study

The art and science of baked clay were discovered accidentally as man came in contact with fire and a settled lifestyle. Ever since it has remained one of the oldest crafts which have provided man with household utensils. The products were more for instrumental uses or utilitarian functions rather than the aesthetic function of art, even though they must be fine to please the eyes. Without the knowledge of the visual elements of design and the principles of design, the traditional potters were only concerned with the production of vessels in addition to those of animal skin and gourd to solve man's domestic and farming problems. Different pots were produced for different purposes or functions. There were pots for fetching and storing water, wine and cereals, larger pots for food processing and brewing, smaller pots for cooking, washing and bathing and very small ones as bowls for eating and drinking. There were also ceremonial pots, ritual pots and perforated pots for drying meat, fish and other foodstuffs. The function was given priority over aesthetics, thus the traditional potters did all they could to produce enough to meet the demand for vessels though they had to please the eyes of the users.

To date, potters still produce wares without paying much attention to form or structure and texture, even when they contribute in no small measure to the effective functioning of the wares. It is worthy of note that these two visual elements of design are so important in the three-dimensional design of pottery (ceramics) and sculpture. While the form, shape or structure is the tangible work of art or the work of art in the material deposit which has volume, occupies space and can be appreciated in the round, texture determines the surface character of the ware. A creative combination of these two important visual elements of design in pottery helps in the aesthetic and utilitarian functions of the wares.

Aim and Objectives

This paper aims to re-emphasize form and texture as a synergy in the proper functioning of pottery wares while the objectives are to explore form and texture as visual elements of design or organization, to explore functionality as the reason for pottery forms, to identify the point of synergy between form and texture, and to explore how this synergy enhances the functioning of pottery wares.

Literature Review

The necessary data for the review of related literature for this paper were gathered from both primary and secondary sources.

Theoretical Framework

This paper is anchored on the work of Kubler, G. of 1962 who theorized that “Man's native inertia is overcome only by desire, and nothing gets made unless it is desirable”. He went further to say that “every man-made thing arises from a problem as a purposeful solution and style is the spice added to works of art”. This means that every pottery ware is a hard-won solution in material deposit to man's problem. The newly created ware as a solution points to the existence of some problem and it does not matter if the solution is original, conventional, accidental, willed, awkward, skilful, beautiful or ugly. The truth remains

that since the artists have to design and redesign, the solution so created comes after others and new ones are most likely to be invented, thus as the solutions accumulate, the problem alters.

This work is also built on the modern creativity theory by Kanematsu, H. and Barry, D. M. (2016), which holds that creativity is the ability to improve on previously established ideas, organized systems or situations. It also emphasizes the need for synergy. In other words, to integrate new or borrowed ideas into previously organized work and to fuse existing ideas in various forms to solve contemporary challenges.

The two art theories explained here have greatly supported this work in the sense that the two visual devices of design namely, form and texture have been critically explored, the existing pottery wares closely studied to identify defects, and the two elements are brought together to redesign wares that will function well to solve contemporary challenges.

The Visual Elements of Design

Art is the product of human activity in which materials and the visual elements of design are selected and shaped to convey an idea, emotion or visually interesting form. It will be proper to say that there cannot be any work of art without the visual elements and the principles of organization or design. Gilbert (1998), opined that “the visual elements of design such as line, shape, light, value, colour, texture, form, space and so on are the ingredients an artist has available in making any work of art”. In other words, they are the contents, components and what makes up the work of art. The character of the elements and the way they are organized as guided by the principles of design which include balance, rhythm, proportion, variety, emphasis, unity, repetition, dominance, and contrast determine what the work of art will look like. Omuaru (2002), said that “any work of art made in any part of the world possesses the elements in one way or the other. This is supported by Umoh (2018), who said that “the visual elements are the basic ingredients put into the making of the work of art”. In his opinion, Ocvirk et al (1968), said that “the components or ingredients of a work of art are the subject matter, the form and the content or meaning of a work”. The word, form here stands for a work of art that comprises all of the necessary visual elements of design in their correct proportions and positions in the work. It is therefore the totality of the work or the organization of all the visual elements guided by the principles which make up the work of art. This paper only considers two visual elements of design, form and texture and their synergy and how it enhances the functioning of pottery wares. It is important to state that whenever form is mentioned as the totality of a work of art, structural design and structural decoration come to mind and when texture is mentioned, decorative design comes to mind.

A potter who conceives a new work of art has five major things to consider. These include the subject matter or theme, form, content (meaning or message), function or the problem to be solved and convenience. The next task is how to organize the visual elements available to him, in such a way as to satisfy his expressive intent which will in turn add value to society. The task of making the decisions on the visual elements to use, how to use

them, where to use and when to use them in the creation of a work of art brought about guidelines or the principles of organization or design. It is the desire to create a good work of art that makes the artist draw, sketch or plan which is the preliminary study of the work before production, hence design.

Design, therefore, is to create a detailed plan of the form or structure of something, emphasizing features such as appearance, convenience and efficient functioning. It involves the sketch, drawing or plan of something to show how it is to be skillfully, artistically or creatively produced and how it will function. A preliminary study enables the artist to resolve any anticipated problem before production, thus eliminating wastage. Gilbert (1998), and Umoh (2018), were of the same opinion that before committing time, funds, materials and energy to a finished work, the artist will often sketch and experiment until the form or structure and decoration seem exactly right.

Structural design, therefore, is related to the way the different parts are put together and how they work together to create the desired form. It can be said to be a preliminary or working drawing or study suitable for use for construction in engineering, architecture and the three-dimensional art areas of pottery and sculpture. The structure of pottery ware determines its functioning while the decorative design determines its beauty. Structural decoration occurs when any part of the structure adds to the beauty of the form as in figure 1, while the decorative design is created only for the decoration, beautification or embellishment of the work of art as in figure 2. It is worthy of mention that the removal of what makes the structure of the ware will affect the efficient functioning of the ware but a form can still function as desired without decoration.



Fig. 1: Structural decoration
Artist: Umoh J. J.
Year: 2022



Fig. 2: Decorative design
Artist: Umoh J. J.
Year: 2022

Form as a visual device is very complex to define since it is widely used due to its numerous meanings. It can mean shape or mass, the way a work of art looks or is put together, composition or structure or even an art style. Gilbert (1998), asserted that “if a good idea were all it took to be a great artist, everyone would be a great artist”. She went further to say that "the world is full of people who are carrying around in their heads

splendid ideas for novels, operas, paintings etcetera, but what is lacking is form and form is essential to any work of art". Bernes (2009), asserted that "form, the product of visual art is making visible the invisible or making visible, things we normally cannot see". Human beings can imagine, conceive and transform these concepts or imaginations into substantial or tangible forms. According to Shahn (1985), "Form, content and function are inseparable". Form is formulation, the turning of content into a material deposit or tangible entity, rendering a content accessible to others, giving the content a permanence, willing it to the race, and as varied as the idea itself". It is to say that if a thousand students are given an assignment on form, a thousand different forms will be created. Kubler, (1962), asserted that "form is the expression, the remnant of self and the very shape of content". In simplest terms, form is the totality of a work of art. It includes everything from materials, tools, equipment, techniques, and style to the visual elements, principles of design and the final work. This means that in a pottery form, all the visual devices or elements of form or design such as line, shape, mass, value, texture, colour and actual depth are what make up the form. Chapman (1992), opined that "form is any three-dimensional object; it can be measured from top to bottom (height), side to side (width) and front to back or rim to bottom (depth)". He went further to say that "form is a general term that means the structure or design of a work of art". A pottery form, therefore, is a work that has length, height and width and therefore has actual depth and volume as in vessels and mass or block as in electrical insulators and the thickness of the wares as in figure 3. They are appreciated in the round because they occupy positive space and also enclose space as in other three-dimensional designs of sculpture and architecture. The way the potter uses these devices guided by the principles of organization is what determines the final appearance and functioning of the ware. It is the availability of the visual elements and their uses, guided by the principles of organization that creates order which makes beauty, an abstract concept tangible and universal in terms of form organization in art; hence the terms like the beauty of form or formal beauty. A form can be said to be a final work of pottery made up of all of the necessary visual devices guided by the principles of organization to function as a whole. This is supported by Ocvirk, et al (1968), who said that "the artist is successful only when he creates a work or form in which each of the parts, the visual elements are vital, not by itself but in the general functioning of the whole". Thus, every part aids in the purposes of expression and solving other human problems.



Fig. 3: Electrical Insulators (Mass wares)
Source: Industrial ceramics

How Form is achieved in Pottery

Achieving pottery forms begins with drawing or sketching and sourcing clay as the basic material for pottery. This is followed by the preparation of the clay and formulation of the desired clay body for production. Clay body formulation is the removal of unwanted materials, impurities or contaminants from the clay and the introduction of useful substances or ingredients as modifiers. This is to improve upon the properties of clay such as plasticity, porosity, shrinkage, colour, green strength and vitrification range to ensure success in production. There are many ways of achieving forms in pottery. Many of these techniques have remained the same in every society where pottery is practised. However, due to technological advancement which has brought about new equipment, tools, techniques and materials, some aspects of it, such as industrial pottery or ceramics, wheel throwing, slab making, clay body preparation and firing have been highly mechanized while others such as the hand building techniques remain the same. According to Memmott (1970), “the different techniques of achieving form in pottery include pinching, coiling, wheel throwing, slab and casting techniques”.

Pinching - This is the first traditional technique of achieving pottery forms. It involves the pinching and pulling of a ball of clay in the hand with the help of water as a lubricant to ease friction and skillfully manipulate it into the desired form. This technique is usually for small forms such as figurines though lumps of clay can be joined, pinched and manipulated into larger forms.

Coiling- Ruscoe (1975), Chapman (1992) and Umoh (2018), agreed that this is the technique of many traditional potters, especially for those who either do not have or have not learned to use the potter's wheel. This is done by rolling clay into long ropes, coiling, joining with the help of clay slip and shaping from the base until the desired form is realized.

Wheel Throwing - This is a very interesting technique that requires special skill to manipulate a lump of clay on the wheel head to create the desired form. The potter's wheel is a mechanical device which is either manually or electrically powered. It involves centring a lump of clay on the wheel head revolving in an anti-clockwise direction and manipulating the same with the help of water to create the desired form.

Slab Technique - This technique is usually adopted for the creation of flat surfaces or cuboidal forms. It is worth mentioning here that clay slabs can be cut into long belts of about two to four centimetres in width and skillfully coiled as in the coil method to create any form. This technique, as developed by the writer as a student in 1989, guarantees speed, fewer joining, even thickness, less stress, lighter weight, and any shape and size. Clay slabs can be produced with the help of an electric or manual slab-making machine or the traditional manual method of using the rolling pin. The slab is carefully cut into patterns, lifted at its leather hard state to avoid distortion, especially in dimension and joined to create forms.

Slip Casting - This is a very fascinating technique of pottery usually referred to as industrial ceramics. It is so called because the aim is to mass produce a piece to meet the demand and maximize profit and this can only be done with the help of heavy machines and equipment. In this method, a model of the piece to be mass-produced is drawn and created with either clay in the studio or plaster of Paris in the industry. The model can be produced manually with the hands or mechanically with the lathe machine after which a drain or block mould of the model is produced. When the mould is completely dry, it is coupled and casting slip is poured in to cast. Plaster of Paris is the preferred material for the mould because it sets fast and light in weight, is serviceable, not harmful to the skin and porous which enables it to absorb and release water quickly. Casting slip is produced by a process called, de-flocculation of slip. A small amount of an electrolyte such as sodium silicate (water glass) is introduced into the clay paste. The electrolyte reduces the amount of water needed to form slip and increases fluidity by passing an electric charge through the slip to disperse the particles, thus making them remain afloat, unable to get together to form lumps or to settle. This allows the mould through the capillary action to cast an even thickness from the foot to the rim. While the studio potter can use a plastic clay body for casting by press-moulding, the jigger and jolly machine use the plastic clay body to mass-throw wares in the industry.

The texture is the surface quality or character of any object. It is another very important visual element of design that plays a key role in pottery as in other three-dimensional designs. It is the feeling of smooth or rough, flat or bumpy and fine or coarse surfaces of objects. In pottery, the texture goes beyond just the surface quality to include three-dimensional or coarse particles of primary clay and two-dimensional or fine particles of secondary clay. It also has a great influence on plasticity, porosity, shrinkage, green strength, mould, casting slip, the three ceramic clay bodies of earthenware, stoneware and porcelain and finally, firing. Umoh (2008), said that "life would be boring and uninteresting without a variety of textures". Adams (1999), defined texture as "the visual or tactile surface quality of an object". Omuaru (2002), asserted that texture can be natural or man-made and is appreciated through the senses of touch and sight.

Natural textures are textures in actual objects which are created by natural processes as in figure 4 while artificial textures are created by man-made inventions as in figure 5. While the actual or tactile texture can be sensed through touch, the visual or simulated texture is created by the artist on a flat or two-dimensional surface and sensed through sight.



Fig. 4: Natural Texture
Source: Writers collection
Year: 2008



Fig. 5: Artificial texture
Artist: Umoh J. J.
Year: 2020

How Texture is achieved in Pottery - Works of three-dimensional design would be dull, boring and uninteresting without texture or surface character, though every work of art possesses the surface character of either smooth, rough or coloured. Texture, whether actual or visual can be achieved through many techniques of decoration as the material, clay is malleable and can be manipulated to create any kind of texture.

Actual or Tactile Texture can be created through relief (additive) or incised (subtractive or intaglio) techniques of decoration. It can be created by imprinting from tree bark, shoe sole, jute sack, concrete surface, mat, maize cob, rock fragment, and so on. It can still be created by rubbing, burnishing, sgraffito, weaving, knotting, punching, matte and glossiness of glaze, slip trailing and lots more.

Visual or Simulated Texture can only be sensed by sight and it is created in pottery by the skilful use of different oxides, engobes and glazes through different techniques of decoration such as pouring, dabbing, spraying, sponging, sprinkling, brushing, screen printing, heat transfer, colour blowing and trailing. However, where the mixture of oxide, engobe or glaze is in a very thick consistency, some may result in actual texture. This type of character can be created intentionally or appear as a glaze defect

Form and Texture: A Synergy that Enhances the Functioning of Wares

Pottery or ceramics remains one area of art where the products are meant to solve man's daily problems in the home, building and fashion industries, engineering and the health sectors, and so on. To this end, form and texture stand out as two visual elements of design that play a very important role in the functioning of the wares. Chanda (2009), opined that “an object or form of art must, first of all, perform its function very well while beauty (texture) is an attribute that enables it to do so and makes the form pleasing to the eyes”. She went further to say that “the qualities an artist may strive for to achieve this beauty include balance, clarity of form, straightness or firmness, exaggeration or distortion and stylized or symbolic depiction”. In pottery, form or structure and function cannot be

separated and for the aesthetic function of art, texture cannot be separated from the form. Nsentip (2007), said that "in pottery, the function determines the form". This follows that before a potter conceives, designs (sketches) and proceeds to production, there is a particular problem that needs to be solved and the form or structure to be created must be such that will enhance the functioning of the pot. Parts of the form such as the foot, spout, rim, neck, shoulder, belly or body, handle, lid, knob, gallery, thickness, height, width, stability and so on must be seriously taken into consideration from the sketch or the preliminary stage. It is proper to mention that on several occasions, priority is given to aesthetic function at the expense of utilitarian function and vice versa. This is seen in beautiful spouts that cannot pour, the narrow foot that cannot stabilize or carry tall or fat pots, weak and imbalanced handles that cannot lift the pot, tea cups that cannot sit in the saucer, a pitcher that cannot pour, a lid that cannot sit properly in the gallery or collar, a rim that is not convenient to the lips, wares too thick, too heavy and so on. To create good and balanced pottery ware, equal attention must be given to their aesthetic and utilitarian functions. Whether it is to solve the problem of self-expression and communication, household utensils, architectural forms, fashion accessories, porcelain (bone) transplant or beautification of the environment and so on, form, texture and function must go together. In other words, an appropriate form or structure must be created and an appropriate texture applied to enhance functionality.

In the utilitarian function or instrumental uses of pottery wares, there has been a synergy of form and texture to improve upon the functioning of the wares. Forms for table or dinner wares such as tea sets, and water sets, dinner sets and sanitary wares such as floor tiles, water closets, shanks, bathing tubs and so on require little actual texture such as smoothness. This is to keep the wares from accumulating dirt and make them washable and hygienic. However, some floor tiles are given some degree of roughness to aid a firm grip. Ornamental forms such as ceramic sculptures, flower vases, flower planters, wall hangings, floor and table lamp sheds, centre tables, walkway and elevated wall tiles, water fountains and so on, some of which carry content can be highly textured with actual and visual textures to enhance aesthetic function and aid carrying. It is worth stating that the content the work of art carries can even be in the texturing which enhances communication as a function.

Conclusion

Pottery, a three-dimensional design has always been in the business of providing man with wares to solve his daily problems and for these wares to be accepted, they must be beautiful to the eyes. The form has remained invisible made visible by the artist through the skilful use of the elements of design, guided by the principles of organization or design.

Form as the totality of the work of art must be created to serve its aesthetic and utilitarian functions very well and to achieve this aim, there must be a synergy of texture or surface character, either as actual texture or visual texture with form or structure. While form is achieved by the techniques of production, the texture is achieved by the techniques of decoration and the combination produces balanced wares that will function efficiently and

conveniently. This becomes possible when the potter knows the function of the form and the texture that will help to enhance the functioning of the ware.

References

- Adams, L. S. (1999), *Art across time*, McGraw-Hill. London.
- Bernes, B. (2009). *Art Microsoft Encarta*, Redmond, WA: Microsoft Corporation 2008, 2008.
- Chanda, J. (2009). *African Art and architecture: Microsoft Encarta*. Redmond, WA. Microsoft Corporation, 2008.
- Chapman, L. H. (1992). *A world of images*, Davis Publications Inc. USA.
- Gilbert, R. (1998). *Living with art*, McGraw-Hill, USA.
- Kanematsu, H. & Barry, D. M. (2016). *Stem and ITC education in intelligent environment*, Intelligent System Reference Library, S. I. Publishers, Switzerland.
- Kubler, G. (1962). *The shape of time: Remarks on the history of things*, London: Yale University Press.
- Memmott, H. (1970). *The Australian pottery book. A comprehensive guide to pottery*, Paul Hamlyn, London.
- Nsentip, U. (2007). Ibibio indigenous pottery and its roles in a contemporary society, *Ashakwu Journal of Ceramics*. 4(2)
- Ocvirk, O. G. et al (1968). *Art fundamentals theory and practice*, WM. C. Brown Company, Publishers / Dubuque, Iowa.
- Omuaru, C. G. T. (2002). *Groundwork of visual arts: A source book*, Hope Publications, Ibadan, Nigeria.
- Ruscoe, W. (1975). *Sculpture for the potter: A scopas handbook*, St. Martin's Press Inc. USA.
- Shahn, B. (1985), *The shape of content*, London: Harvard University Press.
- Umoh, J. J. (2008), Exploration and exploitation of texture in ceramic practice, *Journal of Society of Nigerian Artists. SNA Publishers, Port Harcourt, Nigeria*. 1(1)
- Umoh, J. J. (2018), *Theory and practice of ceramics: Introduction to courses in Pre-degree program in humanities*, University of Port Harcourt. Nerves Publishers, Port Harcourt, Nigeria.