
Traditional Formal Patterns in Contemporary Ceramics

Haidar Abdelgadir Abakar

Associate Professor, Ceramics Department

College of Fine and Applied Art, University of Science and Technology, Sudan

Email: hidarart@gmail.com

Abstract

This study aimed to analyze the contemporary ceramic forms through the shapes of ancient human civilizations like Nubian, Greek, Roman, Chinese, and Islamic. This is due to its effect on ceramic industry. Then the study following formal patterns originating in the implementation of traditional ceramics in general Africa and Asia so as to following the relationship between the ceramic project forms old with modern, to determine common factors and the reason for continuity imitation at time when equipment has evolved and methods of forming ceramics have diversified, design software for ceramic has appeared. The study also sought to find out the suitability of current products for the purposes for which they were made, with review of aesthetic values, to their shapes according to design requirements in field of ceramics. It also reviewed the sources of some of these forms and their relationship to the environment and prevailing values in the ancient and modern eras. In addition, some new forms have been observed. The study concluded that the continuity of the familiar formal patterns resulted from several factors, the most important of which is focus on the use aspect of the products. Most of those who still craft depend on it as their main source of income, so they produce simple, quick to make shapes to save time.

Keywords: Design, Continuity, Limitation.

The study problem:

Although handcrafted pottery is a very ancient human industry however, most of them are characterized by modularity and limited shapes design. It's observed through contemporary traditional ceramics in many African and Asian countries.

The study importance:

Contemporary traditional ceramics, like all other industries, need diversity in the designs of its shapes to keep pace with modern aspirations and related

concepts of modern design and innovation to find acceptance and compete other products.

Objectives of the study:

- 1 – Analyzing the structure of ceramic shapes through their historical references to highlight the features and values related to it and its relationship to contemporary traditional ceramics.
- 2 – Highlight the most important factors that helped to sustain specific production of contemporary traditional ceramics.
- 3 – Checking the suitability of contemporary traditional shapes for the purposes for which they were produced.

1. Introduction:

Most of the handmade ceramic product are limited to the form of three – dimension geometric shapes such as spherical, cylindrical, oval, pyramidal, conical, and similar shapes which gives a mental picture of ceramic product as if it were just a container attached to neck with a spout of flat vessel. This is observed through museums, trade fairs markets, and places of popular manufacturing activities in many African and Asian countries. The reasons for the lack of diversity in designs of the shapes are not clear, which call for questioning whether they are related to the use aspect of ceramics or to the requirements of specific implementation methods. It is worth noting that the decorative aspect has achieved a remarkable development compared to the ceramic form that are executed on them. It varies from one location to another according to the different culture of peoples. Currently, the potters who studied this profession in universities, institutes of specialized centers have contributed to inventing new designs for ceramic as an art and as an industrial product. While the craftsmen who learned it through apprenticeships still practice it as a folk craft while keeping the form of their products undeveloped. Tracking these products, it is noted that they are related to the ceramics of the ancient civilizations that were established in their areas. To achieve the objectives of the study, according to foregoing, it was necessary to review the historical aspect of some types of ceramic from the Nubian, Greek, Roman, Chinese, and Islamic civilizations cite their works and independence from cultural concepts and elicit values that contributed to giving specific features to the forms and ceramics. As well as shedding light on the reasons for the continuity of current ceramics on the old patterns without a noticeable development in shapes in different regions of Africa and Asia in general.

2. Methods:

The study follows the descriptive analytical methodology to review the most important formal patterns prevailing in the production of ancient and contemporary ceramics and their relationship to some and determine the most important features and advantages of products in terms of design, and also to determine the factors affecting the continuity of shapes on specific patterns. To measure the results of study, the qualitative method will be use because it fits with the study samples.

3. Study samples:

They are clay ceramic products that are made manually by pinching, coiling, or slabbing. It also includes ceramics that are made by wheel or molds. Focusing on the regions of central and north Africa, India, and China.

4. Forms of ceramics in ancient civilizations:

4.1 Forms of ceramics in the Nubian civilizations:

Archeological studies have recorded some antiquities dating back to between 220000 and 150000 years ago on island of Sai in north Sudan. It is one of the areas that contained ceramics in later periods dating back to Kerma civilization (Giulia, 2017). The Nubian civilization in Sudan includes several regions, the most important of which are Kerma and Merowe. It was followed by several civilized eras, during which the ceramic industry emerged in an elaborate manner, especially in Kerma where the production of jars and spherical and semi – spherical pots with upper edges and others without edges, its sizes are multiple and various decoration, some of them are polished, and the thickness of pieces ranges between 4 to 12 mm (Ibid). By observing the shapes through Kerma museum, they are characterized by honesty and high skill in giving shape, especially in what is known Kermic cup, it started with small round base and end with wide nozzle, inside has glossy black color, and outer color is red, it is decorated with ribbon that is an inch wide in black or white, and sometimes it is silver. There are other spherical and half of spherical shapes in large quantities and different sizes, in an addition to its production of oval and cylindrical shapes with different nozzles. Most product design refer to their use for preserving liquids and foods or storing grains. It is noted that the ability to adapt the materials and good control of the processes of finishing, polishing, decoration, and adjusting the method of firing.

During the Merowe civilization, ceramic pots were the most widespread as thousands of them were found. Most of them were decorative utensils that testify to that era of high level of development in the art of ceramics (William, 2005). The same source indicates that the orchid sites, most of their pottery, are made by wheels, and they are devoid of decoration,

but rather sloppy. It is believed to be an imitation of Egyptian pottery, which is widely consumed. The good, pious pottery of Nubian is in the south, and there is a kind of discontinuity between the method of making pottery of the south and the north, which suggests the existence of ethnic division. The best works found in AL – Musawwarat and Merowe area. On the phenomenon of using the term (ankh) in decoration of ceramics, it is believed that it resulted from the Egyptian influence in Merowe. However, most of decorations suited local tastes and different from the Egyptian ones. Most of Merowe ceramics are products for preserving liquids in different sizes and shapes, the most important of which are mugs, jars, jugs, and flasks. The decorations used represent botanical themes, animal themes, scenes of human activity and human faces with a sarcastic caricature. The Meroitic and Egyptian motifs are similar through the use of a lotus flower, a three – leafed plant, and vine branch (Ibid), but Egyptian forms have a relations to Ptolemaic pottery (Anna, 2010). The Meroitic used in their decoration shapes of crocodiles, frogs, and snakes in abundance. In addition to their use of birds, cows, giraffes, lions, geometric shapes, and various crests of mythical animals. The pious ceramic of Meroitics were not for luxury, but were among the normal daily uses (William, 2005).

4.2 Forms of ceramics in the Greek civilization:

The Greek civilization affected the countries bordering the Mediterranean Sea through the extension of its commercial and military influence, as Athens was an important trade center. Their beliefs were associated with multiplicity of gods, and this affected the art of sculpture, architecture, and handcrafts. They produced ceramics with distinctive flowing shapes that were decorative with various themes such as music, dance, wrestling, hunting, war, and horses (Hoek and John, 2013). The decorations were executed on the surfaces of circular plates, during which they dealt with various animal themes, the most important of which are lions in hunting and taming positions and the predation of bound captives. The same source (Ibid). The main types of Greek ceramics are as follows:

- 1- Amphora: it is an oval jar with a relatively short neck, it has two handles on its side, and a pointed base, used to store olive oil and wine.
- 2- Oil lamp: it has hemispherical shape closed on the top with an opening hole for pouring oil, and it is decorated with circular stripes. Has one or more side nozzles.
- 3- Wine jack: the shape is semi-oval, with spay part rises smoothly, and handle extending above the jack hole, then drooping downward and sticking to the rest of the shape.
- 4- Ampulla: it is small jar, which has short neck, and two hands on its side, used to store oil.

- 5- Aryballas: its small jar which has short neck ending to wide hole, and have one hand. Used to store olive oil.
- 6- Wine pots: it's called (askos). Its shape in semi-oval, with short and wide neck, has one or more handle.
- 7- Cups: its cylindrical shapes. Produced by wheels, has flat base, two hands, and ending up with narrow hole.
- 8- Cooking pots: named (chytra). It has half spherical shapes, flat bases, end with wide hole, and two side handle in horizontal position.
- 9- Lekythos: it is an oval jar which is narrow at the bottom and wide at the top, with a long neck and side hand, coated with black clay and decorated with shapes of life subjects. It used for store oil.
- 10- Eating utensils: it's called (echinus), its semi spherical shapes, some have slots that are slightly curved inward, it is glazed or unglazed productions.
- 11- Jugs: its called (gutus). Spherical in shape. Topped with a short neck, closed with a fixed cap with small holes , it has thick hand, poured part, and flat or tapered base.
- 12- Fish plate: its called (Ichthy) circular and slightly concave, there is a place for sauce, and it is often glazed.
- 13- Water jar: its called (hydria), oval in shape with a flat base and a relatively short neck. It has side estuary for pouring water, two horizontally positional hands and vertical third hand.
- 14- Wine cup: its called (kantharos). A ball that is characterized by beauty of its shape, as it consists of cylindrical upper curved in the middle inward, attached to the bottom by a semi-spherical or semi-oval part. It has two side hand, and tiered base. Outer surface were decorated with vertical lines or life themes.
- 15- Pilgrims: it is shaped like two plates facing each other. It has short neck, small base, and two side hands.

4.3 Forms of ceramics in Roman civilization:

In proportion to the expansion of the Roman Empire through the war it waged or trade exchange with European countries, north Africa, and china, its influence on Greek ceramic, all this contributed to spread of roman ceramics with distinctive character in term of elaborate innovative shapes and decorations. The most important types of production as follows:

- 1- Amphora: it is a jar similar to a Greek amphora with some differences in hand, neck, and sizes. Many of it was produce in various forms in eastern and western regions of Mediterranean Sea and north Africa. Shapes are often oval with long or medium neck, with pointed or flat base and lateral hands. It is used to preserve foods, olive oil fish products, fruits, and wine, some of it were also used as coffins for children in Africa. It is usually made by farmers

who bring olive oil or wine in group workshops. Due to the large number of production, ceramic industry is considered a base and routine for roman peoples (Pena, 2007).

2- Dolia: they are large oval jar used to store grains and oils.

The lamps: it's similar to Greek lamps but different in decoration.

4.4 Form of ceramics in Chinese civilization:

The ceramic industry has been known in Far East in general since the late Stone Age. In china, three sites emerged, first what is known (Shang culture), where red pottery is produced, and another type is known as (Yang-Shao). Both of them are belong to Neolithic period. Second, the area below the Yellow River, its products are black, dark brown and polished, with a thin thickness, it was carried out by the wheel, knowing that they are know the use of the wheel about two thousand year BC. (Norton, 1967). The third site is specific to (Hsiao t un culture), their products are large gray jars (Peter, 1963). Most of the productions of the three sites are variety of shapes. The ceramic industry moved to (Shang dynasty culture), which contributed greatly to development of the ceramic industry, especially in Bronze Age. Ceramic products take shapes of animal heads, as well as pattern of multiple installations on the hands and handles that end in the form of the heads of mythical animals, which is executed on the surface of ceramic as a decorative relief carving or low relief surface carving. Besides, there are pots with lids on the shapes of houses and fruits. The products were characterized by very prominent sculpting, especially in the area of (Chou kings) and (Honan). Ceramic industry developed when the Chinese empire was formed by Han where red and gray pottery was glazed with green color as a prevalent feature, then the appearance of celadon, which was used to form pots and sculptures. Their discovery of porcelain in the tang dynasty also contributed to the development, where small sculptures of camels, horses, dancers, servants, and some of forms that documented life activities were made. During song dynasty, an academy of art was established in field of drawing flowers, birds, and Chinese calligraphy, and this was evident in some products (Ibid). The shapes of ancient Chinese ceramics are generally distinguished by their streamlined shapes with necks as oval, cylindrical, spherical, and hemispherical shapes. The products are very diverse and for multi uses.

4.5 Form of ceramics in Islamic civilization:

The past Islamic civilization includes areas that had an impact in the field of industry, commerce and science. The most prominent of them are Iraq, Syria, Iran, turkey, Egypt, Morocco, and Andalusia. Islamic ceramic was influenced by the ceramic of ancient civilizations and later by the medieval ceramic in Europe (Mandel, 1980). It was also influenced by Chinese culture by taking the mythical creatures as decorative objects, where trade relations existed to

a time when the cities of Cairo and Damascus were important centers of trade and industry. Ceramic industry was associated with ideological concepts, and this contributed to the emergence of new patterns of decoration. These concepts are summarized as follows:

1 - Striving to reduce luxury in life and to stay away from the use of precious metals such as gold and silver and to replace them with metallic luster technology that they discovered (Norton, 1967).

2 - Tendency to abstract when drawing people and living things on ceramic surfaces.

3 - The use of abstract geometric shapes to drive complex decorative units in addition to their use of botanical abstractions and Arabic calligraphy of its various types in the decoration of ceramics.

4 - The common use of turquoise and blue in coloring and glazing ceramics.

5 - Quoting decorative themes from myths and superstitious creatures on Chinese approach, or other topics such as Al-Buraq and stories of the Thousand Night and One Night.

Most the production shapes are around plates, bowls with bases, and vases made by wheels. Qishan city in Iran was famous for type of decorative tile later known as faience, it is used to cover mosques and shrines. As for turkey, it was famous for production of decorative dishes in an analogue of plant and flowers. The design of products have taken oval and semi spherical shapes, and some of them resemble Chinese products. There is rarely an embodiment of living things in their three-dimensions. In general, ceramic products are diverse and characterized by mastery, due to ideological concepts.

5. Contemporary traditional ceramic forms:

5.1 Contemporary African traditional ceramic forms:

Traditional pottery is produced in Africa as folk craft by free hand build or coiling or by hitting the clay with stone inside shallow pits on the surface of the earth or inside concave metal dish. Clay is also formed in Senegal by spreading it on the outer surfaces of spherical pottery to get the beginning of the shape and then supplement it with one of the previous ways (Roux, 2019).

The design of African ceramic shapes center between spherical and oval, and most of them are for preserving liquids and grains or as cooking pots. Polished from the inside and sometimes from the outside. It is decorated with liquid clay or by engraving geometric shapes and recessed lines or by adding prominent protrusions as in the pottery of Songopari region in Ivory Coast (Heitz, 2017). Calabar in Nigerian region, which was formerly known as center of the slave trade among Europeans, the population produce jars and pots that are distinguished by highly prominent protrusions. Some of shapes

of their plates are rectangular, turned downward in an oval shape, with round bases. It also produces sculpture of human heads with highly prominent details and protrusions. Those patterns of decoration moved as far north Niger (Eyo, 2008). Tracing the forms of ceramics in center of Africa in Kenya, Uganda, and Tanzania it is noted that most of products are spherical, oval, or cylinder, with some modifications in the basic shape. Prominent part are also added that positively affect the shape, such as human or animal faces in different proportions with cubic features or protrusions. The most important features of their products in the good polishing and decorative enrichment of dark-colored surfaces. Market their products locally, which take an artistic work and sold to tourists.

Other ceramic products have been associated with hospitality and expressions of generosity as coffee pots among the Ethiopian and Beja tribes of Eritrea and Sudan. Products are small spherical shapes with semi cylindrical neck and hand. It is well polished and decorated with geometric patterns and lines. The area between central Sudan and eastern Chad has similar shapes of jars, utensils, and cooking pots relative to the tribal interior of population, this profession is practiced by Zaghawa, Dajo, Nuba, and fur tribes. It is worth noting that there is a kind of green clay products that is made in the Nuba and Fur regions, which is huge handicraft product, it is 180 cm high and about 1 m in diameter. It is called Sweiba, as well as Dabanga, which is a semi-cylindrical grain silo with a lid (Mohammed, 2007).

Along the Nile valley, most ceramics are produced for use, such as potted plants and pots, their shapes were oval with flat or conical base. The development of traditional contemporary ceramics in South Africa was linked to development of equipment and large number of manufacturing centers along with tourism.

The same applies to the countries of Maghreb, which have large centers and cities for the production of ceramics, such as city of Asfi and Cartage , which are made to meet the tourists need for ceramic of an Islamic nature, especially plates, cups, vases, mosaic, and casseroles. Wheels, molds, and hand-build are used in production. Design of shapes are spherical, oval, circular with adding simple modifications, most of work were glazed.

5.2 Contemporary Asian traditional ceramic forms:

The forms of ceramics are similar in countries neighboring India such as Afghanistan, Pakistan, and Bangladesh as they are similar in other countries close to china such as Korea and japan. The basic shapes of products in general are spherical, oval, conical, and cylindrical with some minor modification. In preparation to the influence in ceramic sculpture, but the Islamic influence has dominated on some decorative patterns in Indian and Pakistan architecture. The use of mythical beings prevailed and statues of the gods according to India beliefs and their expression through the ceramics in

the form of small models. Practice pottery in India as a folk in most regions has similar patterns and dates back to the Harapan and Mohenjo-Daro, a period corresponding the Chinese dynasty culture (Gupta, 2011).

Tradition ceramic is made in India by hands or rudimentary wheels to fulfill local demand. It is noteworthy that Indian women are able to use the wheel in production operations but African women cannot use it, as they use simple-made finishing tools and prepare organic paints for decoration. Graphite and liquid clays are used for polishing and decoration processes. Ceramic in Haryana and Andhra Pradesh in north India, it is jars, the bottom half of which is hemispherical and the top is semi-conical, topped by a wide mouth (Roux, 2019), that is the distinctive shapes of jars in Pakistan as well. There are other similar shapes conical for cultivation of the pot reduced by wheel. Jars are spherical and Rajasthan region is famous for their manufacture. There are relatively advanced production centers in terms of equipment, preparation of raw materials, and use of glazes, but methods of hand-craft or with simple wheels, as in the Jaipur center for blue ceramics influenced by the patterns Islamic vases and mosaics industry (Gupta, 2001).

In China with the industry development in various field, the availability of equipment and materials, and the spread of training centers and small factories, it is noted that manual and semi-automatic manufacturing still produces forms that relate to the ancient Chinese heritage. This is evidenced by the markets, as observed in the green ceramic factory near long Xuan city, where it produces porcelain and celadon ceramic for shapes of vases and plates that are still exported to other countries for more than hundred years. The forms are spherical, oval, and cylindrical with some streamline modifications to adapt the shape to suit method of use. Decorations are drawing of flowers, birds, environmental scenes, and geometric shapes with colors under or over glaze, or carved decorations with slight turquoise on the surface. One of the most important centers for the development of ceramic is that which attached the museum of modern ceramic in Hangzhou in east china.

6. Design concept in the field of ceramics:

The simple meaning of design according to the needs related to implementation in the field of ceramic is to control aspects the aesthetics of the form in favor of the purpose for which the design will be, taking into account the strength of the form and its consequences stresses on feeding (Dodd, 1994). It also means a process associated with idea that provide final form. The design comes with several options to reach an innovative level of shape so that it can be implemented (Ambrose, 2010). It also mean planning a work that is suitable for specific purpose and that is pleasing to the senses and harmony to the maximum with its components (Norton, 1967).

7. Ceramics requirements and their relationship to design:

Ceramics based on clay and semi clay materials are usually treated to obtain plasticity, and when its dough is formed into pieces with long horizontal extensions, it sag due to plasticity as well as mechanical stresses experienced during the dry period or due to high temperature, which necessarily means that the design of the shape is suitable for implementation and capable of bearing the weight of the clay to each other at different manufacturing shape without sluggish. Shape designs with flat surfaces are subject to curvature as are the straight edges of cubes the sharp corner of shape are more likely to break, the most important design requirements for ceramics are summarized as follows:

- 1 - The many meanders, sharp angles, and narrow curves hinder the process of cleaning the shape, and is not preferred in eating and drinking utensils.
- 2 – The thickness of product must be commensurate with the size so that it does not break when moved.
- 3 – Large-sized pieces are prone to breakage due to frequent stirring.
- 4 – Balance is important for the stability of the shape when drying and firing.
- 5 – Sharp edges are easy to break and do not help absorb the glaze.
- 6 – The strength of shape, which is meant that the shape does not give impression that it is easy to break.
- 7 – There are forms that are implemented in specific ways, and other ways of implementation are not accepted.

8. Analysis of the forms of ceramics of ancient and contemporary civilizations:

Analysis design shapes the study was based on identifying the most important features of high-profile products through perfection and controlling the raw materials to adjust the shape and its useful function and effects and values it bears, as shown in the following tables.

Table 1. The most important of ancient ceramics:

| | Nubian | Greek and Roman | Chinese | Islamic |
|----------------------------|---|---|--|--|
| Type of shapes | Spherical, oval, cylindrical | Spherical, oval, cylindrical | Hemispherical, oval | Transformer oval |
| Important products | Kerma cup, pots, jars | Amphora, wine cup, jars | Wine juck, tea set jars, food utensil | Vases, plates, mosaics |
| Design resources | Geometric shapes with modifications | Modifying and installing geometric shapes | Geometric shapes, installing. Fruits, nature | Modifying and installing geometric shapes |
| Aesthetic values of shapes | Simple shapes, homogeneous with relationships | Smooth blending of components of the shape characterized by vertical elongation | Streamlined shapes with symmetrical relationships of two geometric | Diversify in use of shapes and their symmetric relationships |

Haidar Abdelgadir Abakar– Traditional Formal Patterns in Contemporary Ceramics

| | | | | |
|-------------------------------------|---|--|--|---|
| Implementation methods | Hand-build, wheel | wheel | shape or more Hand-build, wheel | wheel |
| Surface treatment method | Refine, polishing, painting | Refine, polishing, painting, sometimes glazing | Refine, painting, glazing | glazing |
| Decoration resources | Geometric shapes, life themes, birds, animals | Semi-hooked shapes, life scenes, calligraphy | Plants, flowers, birds, mythical creatures | Intricate geometric shapes, floral, foliage, Arabic calligraphy |
| Techniques for applying decorations | Scratching, painting, stamping | Scratching, painting, stamping | Slight superficial carving, painting | Painting, curving, enamel |

Table 2. The most important features of contemporary traditional ceramics:

| | Contemporary African ceramics | Contemporary Asian ceramics |
|---|---|--|
| Geometric shape dominate the design | Spherical, oval, semi-oval, semi-conic | Oval, semi-oval, hemispherical |
| Most important types of products | Jars, pots, cooking utensil, coffee pots, human faces | Vases, plates, jars, cooking utensil, antiques |
| Design resources | Geometric shapes, human, animals | Installing two different geometric shapes or more, fruits, animal figure in sculpture |
| Aesthetic values through the consistency and harmony of units | Simplicity of usage forms, complex shapes with symmetrical relationships and sometimes heterogeneous composition, especially in sculpture | Uncomplicated streamlined shapes with symmetric relationships, and homogeneous installation of units |
| Implementation methods | Hand-build, wheel | Hand-build, wheel, mold |
| Surface treatment technique | Refine, polishing, painting, smoking, glazing (in Maghreb countries) | Glazing, painting, refining (in India and Pakistan) |
| Decoration resources | Geometric shapes, human, magic, animals, Islamic decoration (in Maghreb countries) | Plants, flowers, nature, mythical creatures, doctrinal themes |
| Techniques for applying decorations | Scratching, deep curving, sculpturing, painting with colored slip | Scratching, curving around edges of decoration units, using of mythic, organic paints |

9. Discussing the results of the study:

There is difficulty in obtaining the foundations upon which the design of the forms of ceramics of ancient were based but some factors and indicators indicate that the need to use the product for specific purpose is what let to it appearance of these shapes. Also, the shapes used in nature are abundant in geometric shapes and can be studied carefully in it through fruits, plants, living organisms and others.

The old products did not prove the different stages of manufacturing in order to facilitate the adaptation of ceramic materials with simple tools it made it possible to give different shapes based on the vertical circular pattern. It also helped shape by the wheel, but he restricted it by rotating and symmetrical, which necessitated the transformation of some shapes in stage or form during the installation of cutting part to get another shape.

The geometric shapes that were produced were simple and did not require complications or a long time to manufacture, as it was easy to use. As

for the decorations, that were added, they serve as a lovely expression to reflect the cultural identity, belief, or activities related to the way of life as each civilization has emphasized this in its own way.

Proficiency in adjusting shapes, paying great attention to polishing processes and exacting decorations accurately with emphasis adjusting the proportions of the prominent sculpture on the products indicates a life of luxury and concern for the nobility, especially in the Greek and Roman civilizations, and this is confirmed by scenes on the surface of the products, add to that the abundance of the production of wine utensils, and the large number of amphora jars being manufactured indicates that the ceramic industry is closely related to trade.

Ceramic industry developed in ancient civilization because of the need for products where are not cheap alternative at that time, the materials required for the industry were available and inexpensive. China benefited on of its raw materials in diversifying products and exporting them in abundance, especially after discovered of celadon and porcelain, as it was encouraged by the ruling family's and the rule of doctrinal concepts, and myths.

Ceramic of Islamic civilization it diversified with the multiplicity of cultures that mixed with it and added new patterns for surface treatment through the decoration that later known as Islamic decoration, in terms of design it added a few configurations of shapes.

Ceramic design intertwine among ancient civilizations, including roman amphora type egg jars with minor differences from the region to another, as well as spherical and semi-spherical jars.

The factors that influenced the transmission of ancient ceramics form in general are trade, where experience are transferred to others that each region products design with decorations that suit local tastes and other decorations that suit the tastes of the imported region for it products, specially china through its trade with Islamic countries. Pottery was also used as containers for transportation especially roman jars. Reflection of cultural influence and way of life was an important factor for ceramic products.

Contemporary traditional pottery in Africa is made by women in poor communities for the purpose of trade according to the local need for consumer products, so their forms were linked to the method of use. Main feature of products are as follows:

- 1 – The ability of women to adjust the shapes of large spherical and oval jars by manual methods and simple tools to obtain user interest and competition in the market.

- 2 – The tendency of fill surface area with many decorations, especially small jars, which indicates an aversion to vast spaces.

3 – The introduction of sculpture in its three-dimensions as complementary parts to the shape of ceramic products to impart aesthetic values in the west and central Africa.

4 – Exaggeration in altering the details of ceramic sculpture by exaggerating or reducing some of them without paying attention to adjust proportions attention to fine detailing.

5 – Most of the works are not glazed and are replaced by polishing, refining, coloring or smoking them to acquire dark colors.

6 – Ceramic sculpture are non-conforming human or animal figures including birds and reptiles.

7 – The products that are carried out with wheel are made by men, and they are widespread in north Africa.

Contemporary traditional ceramics in Asia are produced by conservative societies that adhere to their traditions and patterns of industry it is more concerned with the quality of the product than with modernization of forms. Some of them are poor and use ceramics as a craft to make living and some of them have necessary equipment and materials, but the form products do not change much because of their connection local demand with specific specifications or for export. They are used products and a few of them are antiques. Features defined as follow:

1 – Quality production level in terms of controlling raw materials and finishing due to the availability of production aids from on the one hand and because of competition in marketing.

2 – The overlapping of beliefs and the spread of the culture of myths made the products of china, Thailand, and japan lock similar.

3 – Using glazes and metallic color oxides in the decoration of plant in an elaborate with the rest of the other decorations.

10. The most important results of the study:

1- The pottery of ancient civilizations, in all its forms, tainted the manufacturing methods, available equipment and usage purposes it satisfied local tastes with its aesthetic features and prevailing values.

2 – The continuation of production of traditional African ceramics on specific patterns is linked to the ways of using them as pots to cooking, containers for keeping grains and liquids, serving food, to meet local needs.

3 – Geometric shapes in Asia and Africa are easy to produce and do not require a long production time, which is one of the reasons the continuity of these forms.

4 – The intricate African ceramic figure are for purposes rather for use.

5 – The interest of traditional potters in the manufacture of used products as a profession to make a living on an ongoing basis made them not they are

interested in creating and diversifying forms that many need a longer time in implementation processes.

REFERENCES:

- 1/ Ambrose, Gavin and Paul Harris, (2010). *Design Thinking*, Published by AVA Publishing SA, Switzerland, p.1.
- 2/ Anna, Wadzinska, (2010). *A Manual of Egyptian Pottery–Ptolemaic Period – Modern*, Volume 4, Published by Ancient Research Associates, In, Boston, U.S.A, P. 29.
- 3/ Dodd, Arthur Edward, (1994). *Dictionary of Ceramics*, the Institute of Materials, London, UK, p. 88.
- 4/ Eyo , Ekpo and Christopher, (2008). *The Terracotta's of Calabar*, Old Residency Museum, Calabar, Nigeria and The Cultural Preservation Fund, Washington, U.S.A, p. 11-24.
- 5/ Giulia, D. Ercole, (2017). *Ceramic Manufacturing Techniques and Cultural Traditions in Nubia from the 8th to the 3rd Milleunium BC – Examples from Sai Island*, Archaeopress Publishing LTD, Oxford, p. 96, 65-67.
- 6/ Gupta, Swati, (2011). *Jaipur Blue Pottery*, Swati Gupta, India, p. 14, 18, 47.
- 7/ Heitz, Caoline and Regine Stapper, (2017). *Mobility and Pottery Production*, Published by Sidetone Press, Leiden, University of Bern, Switzerland, p. 199.
- 8/ Hoek, Amewies Vanden and John J. Hermann, (2013). *Pottery Pavewents and Paradise*, Kaninklijke Brill NV, Leiden, the Netherlands, p. 31-38.
- 9/ Mandel, Gabriele, (1980). *How to Recognize Islamic Art*, Pengu Books, New York, U.S.A. p. 5, 42.
- 10/ Mohammed, Suleiman Yahya, (2007). *Encyclopedia of Dar Fur Heritage, Part One*, Currency Printing Company Ltd. Khartoum, Sudan, p. 166.
- 11/ Norton, F.H. (1967). *Ceramics for the Potter Artist*, Translate by Saeed Al-Sadr, 2nd Edition, Dar Al-Nahda Al-Arabia, Cairo, Egypt, p. 87, 337, 111.
- 12/ Pena, J. Theodore, (2007). *Roman Pottery in Archaeological Record*, Published by Cambridge University Press, New York, U.S.A., p. 20-25, 168, 177.
- 13/ Peter, C. Swan, (1963). *Art of China, Korea, and Japan* , 3rd Printing , Frederick A. Praeger ,Publisher ,New York , Washington , U.S.A. p. 10-11, 19-23, 26.
- 14/ Roux, Valentine, (2019). *Ceramic and Society*, French National Centre for Scientific Research. Naterre, France, p. 268, 75-79, 119.
- 15/ William J. Adams, (2005). *Nubian Rwaq Africa*, Translated by Mahjoub Al-Tajani, 2nd Edition, Press Company Al-Fatima Brothers, Cairo, Egypt, p. 338-342.

FIGURES:



Figure 1. Pottery of Kerma civilization



Figure 2. Pot from Merowe civilization



Figure 3. Pot from Merowe.



Figure 4. Wine jack, Greek civilization.



Figure 5. Water pot, Greek civilization.



Figure 6. Pot from Chinese civilization.



Figure 7. Pot from Chinese civilization.



Figure 8. Dragon, Chinese civilization.



Figure 9. Dynasty pottery, China.



Figure 10. Vessel, Islamic civilization.



Figure 11. Plate, Islamic civilization.



Figure 12. Contemporary African pot.



Figure 13. Contemporary Asian pottery.



Figure 14. Senegal amphora, contemporary pot.



Figure 15. Contemporary, African pot.



Figure 16. Contemporary pot, China.



Figure 17. Contemporary pot, China.



Figure 18. Contemporary Chinese pottery.



Figure 19. Buda, Contemporary, China.



Figure 20. Ancient Greek shapes.



Figure 21. Ancient Nubian shapes.



Figure 22. Ancient Islamic shapes.

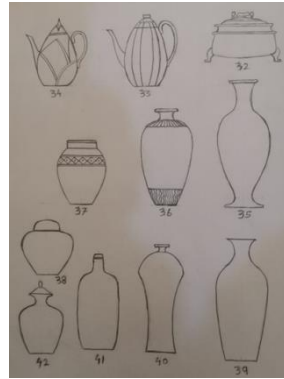


Figure 23. Ancient Chinese shapes.

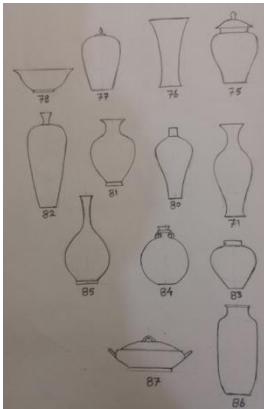


Figure 24. Contemporary Asian shapes.

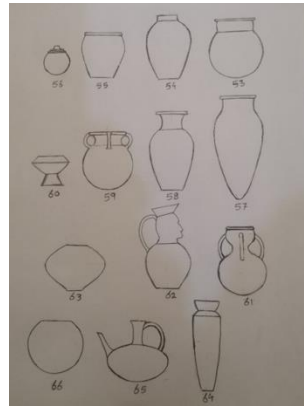


Figure 25. Contemporary African shapes.