

## Bridging the Lacuna Between Concept and Modeling in Ceramic Practice

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**John Jonah Umoh**

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

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**Abstract**

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Ceramics, burnt stuff is the use of clay with or without other substances and rendered permanently rocklike, dense, and vitreous by heat treatment. From its birth, the traditional potters like their counterparts in other art and craft areas produced their wares from concept to the modeling without drawing or sketching. In the hand building technique of ceramics which involves pinching, coiling and slab methods, practiced by every ceramist, even those that have gone through the formal education system still produce wares without drawing which remains, the initial documentation of ideas, thoughts or concepts for record purposes and planning. This paper brings drawing to the fore, to bridge the lacuna between concept and modeling in ceramics practice, especially among professional artists and ceramists from art centers and institutions of higher learning.

*Corresponding Author:*

John Jonah Umoh

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## **Background to the Study**

Pottery or ceramics is a branch of visual art and a three-dimensional art as sculpture, having length, width and height. As visual art, it gives form, figure, firmness, and tangibility to content, thoughts, ideas or concepts making them accessible to others. Unlike in sculpture where the artist has so many mediums such as wood, stone, clay, cement, fiberglass, plaster of Paris, all kinds of metal and so on to express himself, a potter has only clay as his medium of expression while other materials serve as composites and additives to modify the clay for best performance in the conversion of ones concepts into material deposit to solve man's daily problems. In pottery, forms are modeled through many techniques such as hand building, wheel throwing and casting. The truth remains that it is the availability and malleability of the material, clay that informed its usage and this has been part of the history of the origin of pottery in every society where it is practiced. Making pottery has remained one of the oldest crafts practiced by man as he embraced a new settled lifestyle that required vessels for grains, liquids, food processing, worship and other things. Since the wares produced were simple forms to perform the tasks assigned to them as household utensils, the traditional potters did not bother to draw or sketch before modeling, thus working from mind to medium or concept to modeling. This trend has continued till date as many potters, including graduates from institutions of higher learning do not make drawings or sketches before modeling despite the importance of drawing as documentation and plan of work to be executed or modeled. It is surprising to note that text books on pottery only show photographs of the various stages of the modeling techniques and produced wares, without drawing or sketch which is the initial documentation of concepts and the plan for proper execution of the works. Apart from sketches published by potters who venture into fabrication of ceramics equipment, many professionals have published extensively on ceramics practice but failed to publish on drawing and its importance in hand building, wheel throwing and casting, hence the lacuna between concept and modeling. It has become imperative, therefore for me to publish, just a part of my personal sketchbook to encourage the young potters in particular and visual artists in general to imbibe the culture of making sketches as a means of self-expression, illustration and preliminary study before the execution of any work of art.

## **Aim and Objectives**

The aim of this paper is to bridge the lacuna between concept and modeling in hand building, wheel throwing and casting techniques of ceramics production.

1. The objectives will be to explore the meaning and purpose of drawing, to determine if drawing contributes to the effective execution of pottery.
2. To explore the possibility of documenting thoughts, ideas or concepts in drawing and to see if drawing can provide an in-depth study and understanding of the design to be executed.

## **Literature Review**

### **Theoretical Framework**

This study adopts the Modern Creativity Theory as propounded by Kanematsu, and Barry n 2006, which states that Creativity is the ability to improve upon established ideas

by integrating new and borrowed ideas into previously organized systems or situations, and fusing existing ideas in different forms to meet contemporary trends. The theory supports this paper in the sense that drawing is not a new concept or approach to successful execution of works of art, but potters in particular and visual artists in general, over the years have abandoned it, thus approaching their works from concept to modeling, thereby creating the lacuna that can only be filled or bridged by drawing. Drawing is hereby revisited as an existing production approach and made stronger as a vital step that must not be neglected in the process of executing a work of art, hence the production line of Concept-Drawing-Modeling.

Drawing is fine art and a two-dimensional art that is very important in every area of visual art which include Ceramics design, Graphic design, Painting, Sculpture and Textile design. It remains a graphic language, a medium of self-expression, a universal language and a nonverbal means of communication. Ocvirk et al (1975), and Omuaru (2002), agreed that drawing is instrumental to several technical occupations or professions such as Visual Art, Engineering, Medicine and Architecture. According to Microsoft Encarta (2009), the art of drawing has been in existence since The Prehistoric Era. During the Old Stone Age in many parts of the world including Africa, Asia and Europe, the early men made realistic drawings of animals by incision in bone and painted on rock faces and cave interiors. Microsoft Encarta (2009), asserted that Drawing is a delineation of form, an outline picture made with pencil, pen and ink, crayon, charcoal or computer. ? It entails sketching, portraying or representing something in an outline form upon a surface, usually a plane. Omuaru (2002), went further to say that, as a universal means of communication, drawing transcends culture, languages and ethnic boundaries. It can therefore be seen, touched, read, understood and appreciated by all. Drawing is the art, activity or practice of using lines to make pictures either as expression of feelings, illustration to make facts clearer or as a means, an approach or step to achieving other works of art, otherwise referred to as design, working guide or preliminary studies. Everyone at one time or the other has engaged in drawing. As a baby before walking and talking, he engages in drawing known as scribbling, and as an adult, he or she doodles, draws dresses and styles, diagrams, building plans, maps, charts, directions to places and venues for events, et cetera.

### **Purpose of Drawing**

The popular saying that necessity is the mother of invention remains true in pottery because from its origin, wares were produced as household utensils. The discovery of pottery came as man was in dire need of containers for storage. Kubler (1962), asserted that desirability is the basis for invention and creation of things. Thus nothing is made unless; whatever is made is desirable. This means that every man-made thing arises from a problem as a purposeful solution and style and beauty are the spices added to the works of art for aesthetic purposes. Nsentip (2007), in agreement with this, asserted that the types and forms of traditional potteries were determined by the functions the pots were created to serve. Thus necessity gives birth to concept, and concept to function which in turn determines the form. Microsoft Encarta (2009), recorded that, about fifteen thousand years ago, a cave dweller took a burned stick out of the fire and used it to make drawings

of animals on the cave wall. This exercise gave rise to several questions such as; why were these drawings made?, did the drawings give the cave dwellers (the artists) some powers over the animals?, was it part of a magic ceremony?, were they simply moved by the animals' beauty and movement?, who taught them how to draw?, and who led them in the choice of the drawing materials?. It may not be possible to provide answers to these questions here, but one thing is certain; the ancient man drew to express his feelings and document his experience. Sketches are quick drawings and visual notes, documentation of concepts, ideas or thoughts and plan for a work of art. Gilbert (1998), said that drawings are created for three major purposes, namely expression, illustration and preliminary study or work plan. Chapman (1992), said that, it is advisable that every visual artist should acquire, use and keep a sketchbook to draw whatever he sees, feels and imagines in his neighborhood. Some artists draw or sketch, jot some concepts and cut and paste some scraps in the same sketchbooks which become their visual diaries. This helps to keep record, develops ideas, and strengthens visual skills. In order to maintain a single sketchpad for a long time, I filled each page with many sketches, otherwise known as thumb-nail sketches, which are small drawings of people, animals, birds, objects, land and sea scape and forms created or developed or derived from existing objects and other ideas.

It is important to know that whatever drawing a person puts down, must have a purpose. Every drawing as a visual note, is a means of self-expression, documentation, guidance and instruction, which form the three purposes of drawing; Expression, Illustration and Preliminary study. It is either as self-expression, the drawing is finished as a work of art for decoration, as illustration for instruction and better understanding of products and texts or as working drawing, guide or preliminary study for the execution of another work of art, engineering, architecture, medicine and other professions that require drawing.

### **Drawing for Self-Expression**

All drawings or sketches are works of art, initially made for the expression of the artist's feelings, irrespective of any other purpose they might serve. Chapman (1992), asserted that drawing reveals the ideas, thoughts, concepts or imaginations of the gifted and creative person, the artist who draws what he sees, how he sees it, why he sees it that way and sometimes how he thinks it should be, in order to communicate and add beauty to the environment. It is therefore the first means through which concept is made, a tangible entity, accessible to others.

### **Drawing for Illustration**

Illustration is another purpose for drawing or sketching with the sole purpose of making clearer, other products and the meaning of texts. Gilbert, (1998), opined that illustration is very enormous and interesting and requires an extra skill. She went further to state that, it is made for text books, magazines, newspapers, advertising, product manuals, fashion display and packaging. Drawing as visual notes and illustration becomes very necessary where there are no camera and computer or where they are not permitted. Another form

of illustration which is highly economical but worth a thousand words, funny, amusing, satirical, dramatic and political or a combination of all these is the cartoon.

### **Drawing for Preliminary Study**

The sole purpose for preliminary study, working drawing, plan or design is for the artist to study properly to resolve every grey area before executing any work of art. Preliminary drawing can be drawn to scale with accurate dimensions to enable the artist execute the work to its desired size at any time. Design or working drawing for preliminary study becomes necessary to avoid mistakes that will lead to waste of materials, time, funds and energy. It enables the designer to carefully and properly study his concept, plan his work and chose his materials, tools, equipment and techniques wisely to enable him approach his production with confidence. Gill (1973), asserted that a correctly constructed drawing presents as nearly as possible the actual appearance in terms of line on a two-dimensional surface, thus making it very important in the works of artists, architects, engineers, industrial designers, interior designers and landscape specialists. Working drawing therefore makes it possible to view the design as a finished product before committing it to manufacture. This means that before a designer commits his resources into any work or project, he must first of all make preliminary drawings, study and experiment until the form seems exactly right.

At this point, it becomes pertinent to state that a potter who is good at draftsmanship has already involved himself in the three types of drawing. He draws to express his feelings, and goes on to produce working drawings or plan with dimensions and stages of production which he studies before executing the work. He finally uses the drawings as illustrations to document his practice in a text book or manual for others to clearly understand his approaches in ceramic practice.

### **Visual Elements of Design in Drawing**

The visual devices or elements of design or organization are the basic ingredients or composites brought together to make up drawing as the initial work of art. This paper will only mention a few of them that make up drawing which include line, shape, form, light, value, texture and space, with emphasis on line, since it determines the use of other devices in drawing. Line can be said to be the path left by a moving point, a mark that links or joins two dots or points, a mark of a dot forced to move or an extended mark where the length is greater than the width on a two-dimensional plane. Ocvirk et al (1975), asserted that line by its physical structure, implies continued direction of movement and an agent for indicating spatial presence. It is so basic to art, especially in drawing and there would be no work of art and writing without line. It is used to create outline of form, alphabets, numbers, movement, direction, emphasis, pattern, texture, shading and modeling. It can be actual or implied, with its physical properties containing other spatial ingredients such as soft, hard, straight, horizontal, vertical, oblique, wavy, curved, dotted or broken, zigzag and spiral, all performing different functions and speaking different things in writings, visual art and other technical areas.

### **Drawing Equipment**

A little child who wants to draw will use his finger or a piece of stick to do his scribbling in the sand and as he grows, his pencil on paper. An adult who wants to draw a dress's style or direction to a place will use his pen or pencil on a piece of paper on his table. An artist who wants to draw or sketch will do it on a drawing paper or sketchbook on his drawing table or board whenever the need arises. However, Mendelowitz and Duane (2002), asserted that a good drawing or drafting table with a good lighting system, a T-square, appropriate support, pencil or pen and ink, will go a long way to making drawing easier, more interesting, accurate and rewarding. In addition to the drawing table, the computer is a very important equipment for drawing. Drafting or mechanical drawing which involves the use of mechanical instruments or devices will produce drawings with more accurate dimensions and details for engineering, architectural and machinery purposes. Today, more drafting works are done on the computer, video technology and all kinds of sophisticated equipment in what are referred to as Computer Aided Design (CAD) and Computer Aided Manufacture (CAM) which make the work easier, faster, and more accurate in dimensions and details.

### **Drawing Materials**

A professional artist is expected to always have his sketchbook with him to jot by drawing, whenever the inspiration comes, especially where camera is not allowed. There are several materials for producing drawing as a work of art, whether for expression of feelings, illustration or preliminary study. While some artists, exclusively prefer one favorite material, others experiment widely and are always eager to try each new material that crosses their paths. It is advisable to try hands on as many materials as possible since every material produces its own special effect. Gilbert (1998), opined that all drawing materials are based on pigment which is coloring material in a neutral or some version of a hue that is ground and mixed with a substance that enables it to adhere to the drawing ground, support or surface. McDaniel, (2001), and Gilbert (1998), agreed that, there are two categories of drawing materials namely, dry medium and the wet or liquid medium. While the dry media such as pencil, charcoal, chalk and crayon scratch across the surface depositing particles which are later fixed with fixative, the wet or liquid media such as pens and inks have particles of pigment suspended in liquid or fluid that flows onto the surface, much more freely before drying.

### **The Lacuna between Concept and Modeling**

Gilbert (1998), opined that the world is full of people who are carrying around in their head's splendid ideas for great works of art, but what is lacking is form. Gill (1973), in his contributions said that working drawing makes it possible to view the design as a finished product before committing it to manufacture. While Gill, R. W. stressed the importance of drawing in the production line, Gilbert, R. moved from concept to form, ignoring drawing. The first step to the execution of a work of art after concept, thoughts or ideas is drawing or sketch. Today many potters, including those that have acquired formal education, still produce works from concept to modeling without drawing, hence the lacuna. In more than two decades of my teaching ceramics and drawing in the

university, I have observed that students prefer to work from pictures of people's works from internet, magazines, television, textbooks, catalogues, works displayed at galleries, museums, showrooms and the social media platforms. They, just like the traditional potters still work from concept to modeling, thus maintaining the lacuna. It is surprising to note that many artists cannot create their own designs, except given time to copy from people's works. This has resulted in many products with problems of structure and functioning. To this end, I have "Let Go" many of my students works without working drawings, at various stages of completion. Despite this drastic approach, students still do not form the studio habit of having sketchbooks and sketching for documentation, self-expression, illustration and preliminary study.

### **Developing Drawings to Bridge the Lacuna**

There has always been the big question of where and how do we get ideas, thoughts or concepts for drawing? Artists, especially the upcoming ones keep complaining of lack of something to draw, whereas the environment and human activities have provided more than enough subject matter for drawing. Egonwa (1997), opined that the artist derives his ideas from the society and is himself a product of the society. This is supported by Edewor (2016), who asserted that many artistic visuals have been generated to express the immediate and long term socioeconomic and political effects of oil exploration and exploitation assault on host communities. Umoh (2017), presented some drawings of knots and patterns he derived from the fishing net, Isighe, from the creeks of Niger Delta as motifs for ceramics production. The fact is that when there is a will, there must be a way for a creative person to draw inspirations from the environment, to imitate and create to perfection that which nature has failed to reach. Concepts, thoughts and ideas can come from exciting, funny and unusual events, injustice, poverty, social vices, child abuse, oppression, life in the creeks, oil spillage, environmental degradation, oil exploration and exploitation activities, police brutality, domestic violence, and trending issues such as AIDS and COVID 19 pandemics, war, politics and so on. Sometimes one can draw from his imagination, memories, beliefs, and feelings or inspiration from other people's works in art such as Nsibidi signs and symbols, Ibie-ka ideographs of Edewor, Nelson, Ibiebe alphabets and ideographs of Bruce Onobrakpeya and the Uli symbols and so on. I have been inspired by the Ibiebe Alphabets and Ideographs of Bruce Onobrakpeya and have created and published several designs for pottery making.

Whenever a visual artist in the three-dimensional design areas of ceramics, sculpture and architecture picks up his drawing materials to put down his concepts, the first thing that comes to mind is form or structure. He is planning a work that has volume and mass due to its height, length and breadth and which occupies a positive space, defined by the negative space, to be appreciated in the round. Design, whether structural or decorative is a detailed plan of a form or structure of something, emphasizing features such as appearance, convenience, beauty and efficient functioning. It is the working drawing for preliminary study before the interpretation of the concept into a tangible entity, accessible to others. Gilbert (1998), opined that design helps the artist to choose and organize the visual devices available to him in such a way as to satisfy his expressive

intent. The task of making the decisions on the visual devices or elements to use and how, where, when and why they are used, brought about the guide lines otherwise referred to as the principles of design or organization. The design or drawing for preliminary studies, also known as working drawing can be for structural or decorative design purposes. Structural design is concerned with the way the different composite materials, composite parts and composite devices are put together and how they work together to create a unified whole in material deposit, rendering concept and content accessible to others. In other words, structural design is concerned with the firmness aspect of the three core principles of design which are firmness, utility and beauty. In pottery, problem determines the structure and the structure in turn determines its appearance, efficient functioning and convenience. Structural design has its ingredients, some of which are stability, height, width, length, foot, neck, knob, gallery, lid, handle, spout, thickness, weight and the general surface character which form the reasons for drawing before production. However, the structure of a pot can add embellishments to the pot in what is referred to as structural decoration.

Decorative design however is concerned with the beauty of the pot. It has its own ingredients such as line, motifs, patterns, colour, texture and the general surface character of the pot. The removal of what makes the structure of the pot will affect the efficient functioning of the pot but the pot can function as designed without additional decoration.

#### **Drawing for Hand Building Technique**

Hand building technique of ceramic production remains the oldest technique used by potters all over the world, especially those who do not have the potter's wheel or acquire the necessary skills to use it. It involves pinching, coiling and slab methods of modeling. The potter designs and studies to produce firm structures for instrumental use and beauty. In order to achieve this goal, the potter must draw and study the drawings to be able to resolve the issues surrounding weight, thickness, height, stability, rim, spout, foot, handle, texture and whatever will affect the structure and hinder proper functioning. Figures 1 to 5 below contain some sketches and working drawings for hand building technique.

#### **Drawing for Wheel Throwing Technique**

The wheel throwing technique is another very fascinating technique of creating pottery using the manual or electric potter's wheel. Before placing a lump of clay on the wheel head, the potter must draw and study to resolve the issues surrounding the foot, neck, spout, handle, belly, knob, gallery, rim, weight and stability. Figures 6 to 8, 13 and 14 below contain some drawings of the types of foot, lid, gallery, handle and spout for wheel throwing technique.

#### **Drawing for Industrial Ceramic Technique**

Industrial ceramics is the mass production of potteries by casting using composite material, clay slip and plaster of Paris mould, usually in an industry where heavy and sophisticated machines are used. However, it is also done in the studio at a very low scale.



In drawing for industrial ceramics, three things are given serious considerations. The first one is the seam, which is the line where the different pieces of mould meet when coupled for casting, the spare edge which allows the mould to cast an even thickness from the rim to the foot and undercut which is any projection or depression that will hinder free release of the casted ware by the mould. Other things are the foot, rim, gallery and lid and if the model will require a single or multiple piece moulds, and block or drain moulds. Figure 9 below contains some drawings of seam and spare edge for industrial ceramics technique, while figures 10 and 11 contain drawings of general tools for pottery practice.

### **Conclusion**

Ceramics, just as sculpture and architecture is a three-dimensional art which possesses length, height and width which give volume and mass to it and makes it occupy a positive space, the shape of which is defined by the negative space around it. The creation of the form therefore is the work of a creative person, the artist who converts concepts, thoughts or ideas into a unified whole or tangible entity in material deposit, thus rendering concept accessible to others. There has been a lacuna between concept and modeling as potters no longer document concepts by drawing or sketching before modeling, but work from concept to modeling. Drawing, which is the initial documentation of ideas, whether as expression, illustration or preliminary studies, therefore bridges the lacuna between concept and modeling in hand building, wheel throwing and casting (industrial ceramics) techniques of ceramics production.

### **The Figures**

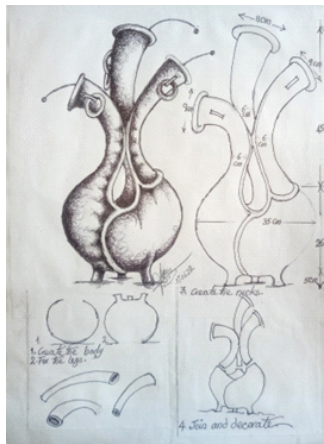
The few figures in this paper are drawn from my personal sketchbook to highlight the importance of drawing, as a means of self-expression, illustration and preliminary study in ceramic practice. Figures 1 and 2 are sketches of ideas to be modeled into tangible forms. Figures 3 and 4 contain the artist's impression and working drawings showing dimensions and stages of production. Figure 5 shows the different types of pottery foot, such as flatfoot, raised foot (ringed foot), sunk-in foot, conical foot (round bottom) and the three-legged pot. Figure 6 carries handles and the method of pulling handles, figure 7 shows thrown and cut spouts and some more handles while figure 8 illustrates galleries (collars), lids and knobs. Figure 9 shows seam and spare edge which, together with undercuts, are very important in the casting technique of industrial ceramics. Figures 10 and 11 contain various vital ceramics tools that can be produced or sourced locally or purchased from the shop. Figure 12 shows cross sections of two pots, a. and b. While Pot a. has thick wall which increases its weight and very narrow foot which affects its stability, pot b. has thin wall and a broad foot which enhances firing and stability respectively. Figure 13 has a tea cup which is larger than its saucer that its foot cannot fit into the gallery while the handle is poorly fixed. Figure 14 is a cross section of a faulty tea pot. The lid is too small and cannot fit into the gallery. The handle is low, thin and weak to carry the pot while the foot is too narrow for stability or balance. The wall is too thick, thus making the pot too heavy for firing while the spout is too short and low that the pot cannot be filled to the brim without spilling.



**Fig. 1:** Drawing for some wares



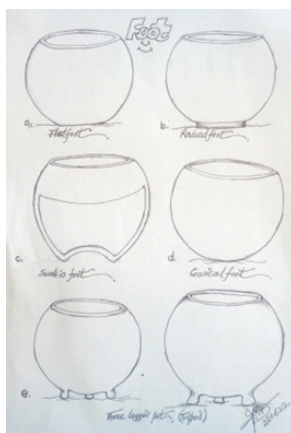
**Fig. 2:** Drawing for more wares



**Fig. 3:** Working drawing for preliminary study



**Fig. 4:** Working drawing for preliminary study



**Fig. 5:** Drawing to show types of foot



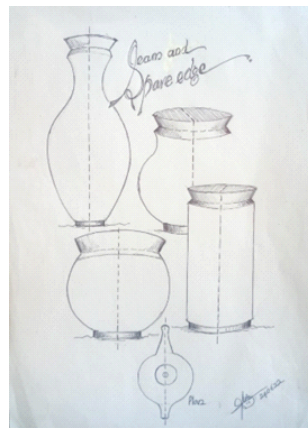
**Fig. 6:** Drawings to show handles and spouts



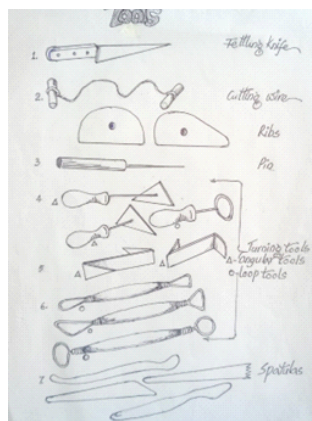
**Fig. 7:** Drawings to show more handles and spouts



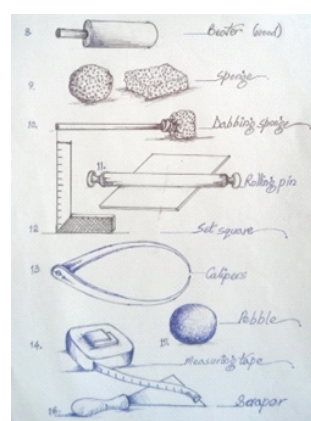
**Fig. 8:** Drawings to show galleries, lids and knobs



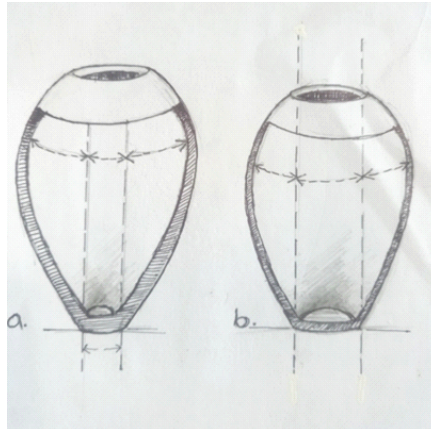
**Fig. 9:** Sketches showing seam and spare edge



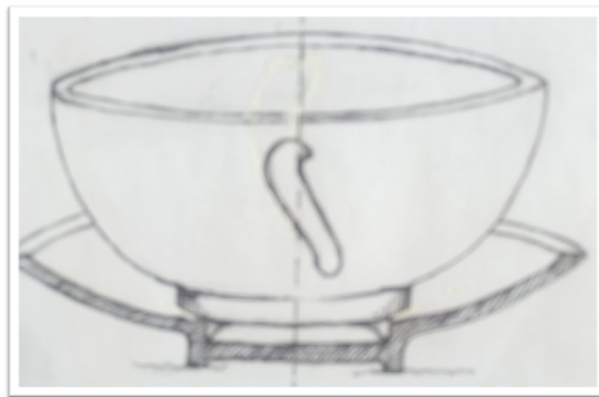
**Fig. 10:** (1-8) Drawings of potters tools



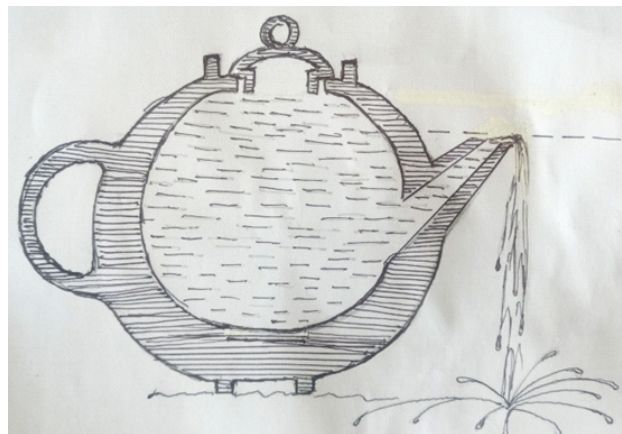
**Fig. 11:** (8-16) Drawing of more potters tools



**Fig. 12:** Cross sections of wares showing,  
a. faulty and  
b. correct thickness and foot



**Fig. 13:** Drawing of faulty tea cup and saucer



**Fig. 14:** Drawing of faulty tea pot

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