An Ethnographical Study of Pottery Workshops in Central Kerala, South India

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Abstract: This article presents the ethno-archaeological work carried out by the author at ten pottery workshops in Ernakulam District, Central Kerala, South India. The production processes in these workshops were carefully documented and interviews were conducted with twenty potters as part of the study. One of the primary focuses of this study is the manufacturing process of ceramics. The paper describes different production methods such as wheel, mould and hand modeling which are still practiced in the various workshops of Central Kerala. It tries to explicate the link between vessel forms and their functions based on the examination of production process adopted at the workshops. The paper also seeks to understand how changing habits generate demands which are in turn reflected in the pottery assemblage produced at the workshops.

Keywords: Ethnography, Potter’s Workshop, Central Kerala, Wheel Technique, Paddling, Vessel Forms, Function

Introduction
Ceramic ethno-archaeology has become an integral part in archaeological studies and it has developed as an aid to understand pottery and its societal functions. It is important to acquaint with the living knowledge system to understand the social dimension of ceramics in a comprehensive manner. Gloud termed Ethno-archaeology as ‘living archaeology’ (Gloud, 1968 as mentioned in Shrotriya, 2007) suggesting its significance to conceive archaeological data in a better perspective as by allowing insight into the diverse variables that influence pottery production. Numerous scholars have been used ceramic ethno archaeology as a tool to interpret the archaeological data (Skibo et.al, 1989; Sinopoli, 1991; Arnold, 2000). Ceramic ethno archaeology is a neglected field in South Indian archaeology, particularly studies on archaeology of the South Indian state of Kerala, where this work is located.

The field work was conducted in two field seasons during January-March 2014 to January-February 2015 and the documentation involved collating information regarding the oral traditions that prevailed in the potter communities, on clay sources, learning modalities, technical vocabulary and selling process.
Workshop Locations
A total of ten pottery workshops, located in Puthuvassery, Chengamand, Vattaparamb, Muthirakkad, Eazhippuram, Trippunitura, Kottayilkovilakam, Puthukkadand, Oorama, Thattapilly, of Ernakulam district (Figure 1), were visited and documented. Notably all these workshops are located near the banks of tributaries of river Periyar or streams. Proximity to river banks is a deliberate choice to have ready and easy access to the raw materials like clay and water. The learning modality of the craft is mainly hereditary. Skill transmission to the next generation is through apprenticeship from childhood. The children get training by helping the elders in different stages of pottery making. There is no specific age to learn this craft and learning is through practice and experience. The traditional potters in Central Kerala belong to Velar or Kushava (traditional potter community) community. The potters usually work in a small shed constructed on the backyard of their houses. They mainly work in the summer season for easy drying of the pots. Pottery making is a family based occupation. At present, men in most of the traditional families of potters are engaged in other jobs that pay better. Most of the workshops in Ernakulam district are run by women. In such workshops usually mould- hand shaping method is used. The male-headed workshops use wheels to make pottery. In such families women are involved in the other manufacturing stages of pots. The reason cited for this gender difference is the difficulty for women in managing the heaviness of the wooden wheel. Now-a-days women have started using mechanized wheels to make pots.

Figure 1: Map of the Study Area

Stages of Pottery Making
The main stages of potter making can be divide in to three- procurement of raw material, preparation of clay, vessel forming and firing. The process of each stage may
change according to the pot making environment of the region. The pottery making processes in Central Kerala are described below.

**Procurement of Raw Material**
The clay is locally known by the name *kalimannu*. The potters in Ernakulam district depend on different sources for procuring the clay. In the earlier days the potters themselves collected clay from the nearby paddy fields. Their experience helps to identify the clay suitable for pottery making. Today clay is very scarce due to the conversion of paddy fields into habitation areas in the region and due to government regulations on mining clay from fields. The scarcity of clay has led many potters to give up their traditional occupation. This has also resulted in the emergence of a new group of agents who supply clay to the potters. These days most of the potters are obtaining clay either from these agents or from tile factories. Those who depend on tile factories get levigated clay from the factories located in Thrissur district, to the immediate north of Ernakulam district. Improvement in transportation facilities in the recent years has facilitated procurement of clay from very distant places also. The agents collect clay from different parts of Ernakulam, Kottayam and Thiruvananthapuram districts in South Kerala, and also from Kanyakumari district in the neighboring state of Tamil Nadu. Some of the potters procure clay from the nearby *paadams* (paddy field). Clay is collected from around a depth of 30 cm from the surface. The potters generally store one Tip Truck (Dump Truck- Vehicle equipped with an open box- bed and hydraulic pistons to lift the front.) of clay near the activity area and make use of it as per their need.

**Preparation of Clay**
The clay procured from the paddy fields or from the agents has to be refined by removing the impurities. The separation of coarser particles like stone and roots is the first step after the procurement of clay. This procedure is very essential to avoid cracks in the pots during firing. Manual removal of impurities using hands is the common method adopted. After removing the impurities the remaining earth is soaked in water and is allowed to become damp. Soaking increases the working quality of the clay. After that, the potter wedges the clay by using a circular iron implement and heaps it together. Wedging helps to get a homogenous heap of clay. The wedged clay is kneaded by using feet and legs. *Podimannu* (silt) is mixed with the well-levigated clay and this protects the pot from cracking when it is kept for drying. The silt acts as temper which prevents excessive shrinkage of the vessels. In one case, a potter from Neeleeswaram near Kalady, pointed out that that the clay yielded from nearby fields was not tempered due to the natural presence of sand particles in it.

**Forming the Vessel**
Different methods are employed in various production centers for forming the vessels (Table 1). In Ernakulam district, two types of production methods are practiced – First is a combination of mould and hand shaping and the second is using potter’s wheel technique.
Mould and Hand Shaping Technique
Mould and hand shaping is the dominant production technique in Ernakulam district. A lump of clay is taken from the levigated damp heap and is flattened with a *kallu* (dabber). This particular *kallu* has a flat operating surface and the lump is made in to a circular flat piece like a disc. During this process, the *kallu* is dipped into ash; time and again to prevent the clay from sticking on to its surface. The flattened piece of clay is then pressed into the ash dipped *achu* (mould). Here again, the ash helps to prevent clay from sticking on to the *achu*. The mould is also made out of clay. The mould resembles a pot in form, but has a ridge at the center and a straight sided rim. The flattened clay is pressed onto the globular base (Figure 2). The mould is placed in an inverted position. The flat, round piece of clay is placed upon the base part and is spread up to the ridge portion of the mould. If there is any extra clay, it is trimmed away using fingers and if needed clay is added. Then the potter rotates the mould with one hand and shapes the clay with the other hand. After shaping, the potter keeps the mould with center of the base upon palm and removes the clay from the mould. The clay attained the shape of a bowl.

![Figure 2: Flattened Clay is Pressed onto the Mould from the Workshop at Muthirakkad](image)

These bowls are kept under the sun. If the weather conditions are normal (an average temperature of 22-30 degrees Celsius without precipitation.), it takes only one day for it to dry. The molded halves are taken to form the vessels after one day of drying in leather hard condition. The potter runs finger around the brim of a molded piece, in
order to widen its top part. During the process, they apply a little water for ease. Another molded piece is placed on top of the widened one so that its brim fits into the widened edge of the latter. Together the two attains a ball like shape. The joint is smoothed out later during the paddling process. The potter pierces the ball shaped form from the top using his/her finger to remove clay in a circular shape for shaping the neck. Water is applied on this opening and the neck is drawn out from the edge by using fingers as the potter rotates the pot in one hand. After the neck is shaped rim is attached onto it. For this, a bit of clay is shaped into the form of a coil and is pressed onto the prepared neck portion. The rim is shaped by rotating a wet cloth around this. The process of adding rim onto the pot is known as 'vakkupidippikkal' and shaping the rim with a wet cloth is known as 'theethiyedukal'. After shaping the rim the pots are kept for drying under normal temperature.

Figure 3: Potter’s Wheel in Use at the Workshop at Ooramana

_Potter’s Wheel Technique_

The workshop at Ooramana uses the potter’s wheel technique. Here the potter’s wheel is used by men and the paddling is done by women. In this technique, the heap of processed clay is placed in the centre of the wheel and is put in motion using a stick placed in a depression made in the wheel. It revolves for three to five minutes on spinning. The potter turns the wheel again when it becomes slow. The potter presses the clay with the right hand and shapes the pot using the left hand (Figure 3). Once the clay takes a cylindrical form, it is shaped into the desired form by drawing out the clay
and using a bamboo stick to level the surface and a cloth piece to smoothen the surface. After shaping, the pot is cutoff from the wheel by using an iron or aluminum wire. At this stage the pot does not have a base. The base is made during the paddling process which will be discussed in the next section. These pots without base are kept for drying under normal temperature.

**Paddling**

After one day of drying, the pots are taken for *thallal* (paddling). The pots made of both mould and hand shaping technique and potter’s wheel technique are subjected to paddling. The process involves placing a *kallu* (dabber) inside the pot and using a *kottoli* (wooden paddle) to beat against the dabber from the outside (Figure 4). The dabber used for paddling has a slightly convex operating surface. The paddle has a slightly concave beating surface and a long handle while the dabber has a convex operating surface with a small protruding handle. The potter uses different types of paddles (of varying thickness) (Figure 5) and dabbers in the beating process. The potter places the pot on his wrist while beating it. The paddle is repeatedly pressed on a wet cloth to ease the expansion. The portion above the neck is not beaten. In potter’s wheel technique the base of the pot is devised during the paddling process. Beating at the belly-part of the pot helps to extend the clay to the base. During the beating process the walls of the pots become thinner and stronger which helps them withstand high kiln temperature and also enlarges the pot from the base to the belly. After the beating process, all the pots are kept under shade. Over or incomplete drying leads to damage of the pot during firing.

![Figure 4: Paddling in Process (from workshop at Ezhippuram)](image-url)
### Table 1: Stages of Vessel Formation

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Workshop</th>
<th>No of Potters in each workshop</th>
<th>Clay source</th>
<th>Max. Distance from workshop to clay source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trippunitura</td>
<td>10 - 12</td>
<td>Agents</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>Puthukkad</td>
<td>2</td>
<td>Paddy fields located at Karruchira and Alangad-Kottppuram</td>
<td>Karruchira-4km and Alangad-Kottppuram-6km</td>
</tr>
<tr>
<td>3</td>
<td>Thattapilly</td>
<td>2</td>
<td>Paddy field at Aanachal and also from agents</td>
<td>Aanachal-1km</td>
</tr>
<tr>
<td>4</td>
<td>Kottayilkovilakam</td>
<td>1</td>
<td>Paddy fields located at Karruchirm and Alangad-Kottppuram and also from agents</td>
<td>Karruchira-7km and Alangad-Kottappuram-12km</td>
</tr>
<tr>
<td>5</td>
<td>Muthirakkad</td>
<td>3</td>
<td>Clay factories located in Trissur district</td>
<td>63 -65 km</td>
</tr>
<tr>
<td>6</td>
<td>Eazhippuram</td>
<td>2</td>
<td>Clay factory located in Trissur district</td>
<td>63 -65 km</td>
</tr>
<tr>
<td>7</td>
<td>Vattaparamb</td>
<td>2</td>
<td>Agents</td>
<td>NA</td>
</tr>
<tr>
<td>8</td>
<td>Puthuvassery</td>
<td>2</td>
<td>Finished Red wares obtained from other workshops made into black wares</td>
<td>NA</td>
</tr>
<tr>
<td>9</td>
<td>Chengamand</td>
<td>3</td>
<td>Finished Red wares obtained from other workshops made into black wares</td>
<td>NA</td>
</tr>
<tr>
<td>10</td>
<td>Ooramana</td>
<td>2</td>
<td>Clay agents</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Equipment</th>
<th>Vessel Forming Technique</th>
<th>Firing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grinding machines</td>
<td>Mechanized wheels</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>2</td>
<td>Mould, Paddle, Dabber</td>
<td>Hand and mould technique</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>3</td>
<td>Mould, Paddle, dabber</td>
<td>Hand and mould technique</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>4</td>
<td>Mould, Paddle, Dabber</td>
<td>Hand and mould technique</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>5</td>
<td>Mould, Paddle, Dabber</td>
<td>Both Hand and mould technique and mechanized wheels</td>
<td>Kiln firing</td>
</tr>
</tbody>
</table>
Carved paddling

The method of using paddles carved with grooves or other design can be called carved paddle beating (Selvakumar, 2011: 201). The workshops located in Ooramana, Thattapalli, Ezhippuram and Puthukkad uses carved paddle to decorate the pots. The carved paddles are used after shaping the pot with plain paddles. Two types of carved paddles were noticed in the pottery workshops of Ernakulam district. One variety has a carved design on the flat surface of the paddle (Figure 5) while in the second variety; the designs are carved onto the sides of the paddle. The latter type of paddles can be used for shaping the pot by using the convex surface and for decorating the pot by using the sides of the paddle.

Firing

The pots have to be sun dried before kiln firing. It takes roughly one month to make enough pots to fill the kiln and another one month to dry them under the sun. The sun-dried pots are then taken for kiln firing. The kiln is round in shape (Figure 6).

<table>
<thead>
<tr>
<th></th>
<th>Mould, Paddle, Dabber</th>
<th>Hand and mould technique</th>
<th>Kiln firing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Mould, Paddle, Dabber</td>
<td>Hand and mould technique</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>7</td>
<td>Mould, Paddle, Dabber</td>
<td>Hand and mould technique</td>
<td>Kiln firing</td>
</tr>
<tr>
<td>8</td>
<td>Nil</td>
<td>Re-firing the red wares to produce black wares</td>
<td>Pit kiln- Open firing</td>
</tr>
<tr>
<td>9</td>
<td>Nil</td>
<td>Re-firing the red wares to produce black wares</td>
<td>Pit kiln-open firing</td>
</tr>
<tr>
<td>10</td>
<td>Iron wire, Bamboo stick, Paddle, Dabber</td>
<td>Potter’s wheel</td>
<td>Kiln firing</td>
</tr>
</tbody>
</table>

Figure 5: Carved Paddles from Ezhippuram and Plain Paddles from Kottayilkovilakam
circular pit is dug and a wall of laterite pieces and brick joined with clay mortar is built around the pit. The kiln is divided into two parts- the upper part for keeping the pots and the lower part for fuel. These two parts are separated by a layer of potsherds. This layer of pot sherds protects the pots kept over it from direct contact with fire. This helps to avoid fire clouds. The pots are arranged in the kiln in such a manner they and chulli (twigs) alternate. The top portion is covered with straw and clay is plastered over it. Fire is given from the pit connected to the lower part of the kiln which is filled with fire wood from the outside. In the wall of the kiln there are15 cm (average) wide spy holes at regular intervals from which the smoke vents out when the kiln is filled with smoke. During the firing process the spy holes are sealed with straw and the straw is removed when the fire spreads over and the kiln is filled with smoke.

![Figure 6: Kiln, Muthirakkad Workshop](image)

The workshops located at Puthuvassery and Chengamand are only engaged in making black wares. They collect the red ware vessels from other potters which are again fired in a kiln constructed only for re-firing red wares. This kiln comprises of a small pit with brick lining on the sides. The potter arranges the pots one over the other in an inverse manner. Arakapodi (saw dust) and chakiri (coconut husk) are used as fuel. Here the firing takes place in reduction condition which helps to create a layer of carbon over the surface of the vessels. The re-firing of red wares under reduction condition turns them into black wares due to carbon coring process.
Products
Cooking vessels were one of the dominant ware from these workshops. They can be broadly divided into two categories- rice cooking vessels and vegetable/meat cooking vessels. The rice cooking vessel is locally known as *kanjikalam* (Figure 7) and has a restricted mouth and tapering body. The vegetable cooking pots are known as *curry chatty*-s (Figure 8). They usually have a wide open mouth and a squat profile. *Chettumattam* (pot used for toddy tapping) (Figure 9) is another product from these workshops which have a restricted neck and a wide base with a gently angling profile. Various vessels used for ritual purpose also are produced in these workshops. These vessels have a restricted mouth and a gently angled profile. Among these the *kalasakudam* (Figure 10) is the vessel type with the maximum demand. This type has a narrow mouth with an outturned rim, high neck and globular body. It is used for ritual
purposes. *Ponkala Kalam* (Figure 11) is another ritual vessel in demand in most of the potter’s workshops. This vessel has a wide mouth and out turned rim. Paddle impressed decoration is often noticed on this type of vessel.

Figure 8: *Curry Chatty* from the Workshop at Vattaparmbu

Figure 9: *Chettumattam* from the Workshop at Ooramana
Figure 10: Kalasakudam from the Workshop at Muthirakkad

Figure 11: Ponkalakalam Kept for Drying Before Firing, Workshop at Ezhippuram
Toy vessels are also made in a few of these workshops. Flower vase and flower pots are the new additions to the ceramic assemblage of the region. The potters recall that flower vases and flower pots started appearing in the assemblage in the last twenty years.

Observations
The analysis of the morphology of the cooking pots shows that all the cooking pots prevalent in central Kerala have a round base. Round base increases the strength of the pot, but decreases its stability. The shape is however ideal for the three pointed hearths prevalent in Kerala on which the pots can rest securely. The kanjikalam (rice cooking pot) has a restricted neck and hence moderate accessibility. The narrow neck contributes to effective heating. Generally cooking of rice takes 30 minutes to 1 hour depending on the type of rice. The narrow neck contributes to cooking speed positively. Rice cooking pots are taller than vegetable cooking pots. Rice has to be strained to extract the excess water content after cooking. The excess water is drained into a vessel called vadikkalam by keeping the rice cooking vessel with its lid in an inclined position over the vadikkalam. The kanjikalam has a wide base and it tapers towards the mouth of the pot. This feature helps to keep it securely over the flare mouthed vadikkalam to drain excess water. Metal substitute of vadikkalam has been widely using and none of the workshops are making vadikkalam due to its little demand. The kanjikalam has to be accessed two or three times for stirring while on fire and then accessed for serving the rice. The shape of the vessel is very suitable for straining and serving.

Curry kalams (vegetable/meat cooking pots) have a squatter profile than kanjikalams and a wide neck. The rim diameter is almost the same when compared to the rice cooking pots. The vegetable cooking pots have to be accessed several times during the cooking process for adding ingredients and stirring. The morphology of the vessel is ideal for such cooking process. Vegetables have to be cooked in a slow simmering condition, rather than the fast boiling. This can be achieved through poor heating effectiveness provided by the wide open mouth and squat profile of the pot.

Kundan chatty is a type of curry kalam that is mainly used to cook a dish called puliseri (Pulisseri is a common dish from the region which has vegetables or fruits cooked with coconut and curd. It has a semi-liquid consistency). Frequent stirring is needed to prepare pulisseri. The wide, open mouth and straight sided walls provide complete access to the content in the vessel. The very poor heat effectiveness of this type vessel is best suited for the preparation of this dish which has to be cooked slowly over a low flame without letting it boil over. The morphology of the vessels plays a vital role in allowing the pot to be kept over fire for a long time in simmering condition. These examples show that the shape of the vessel is mainly determined by its function. The traditional shared knowledge and the potter’s personal experience are crucial factors in deciding the form of the pots. The food habits of the society are thus a decisive factor in the morphology of the vessels.
Nowadays, demand for black wares has increased and there are workshops engaged only in black ware production. The introduction of Liquefied Petroleum Gas (LPG) as cooking fuel demanded new type of vessels and led to a wider use of metal vessels initially. In the last few years however there is a higher demand for earthenware vessels which can be used on LPG-run stoves. This is due to the increasing awareness that the cooking in earthen vessels is healthier than cooking in metal wares\(^1\). Hence, earthenware is increasingly used on LPG run stoves also. The concentrated flames of LPG can cause cracks on the bottom of the pot. This has led to the introduction of thick black ware which is able to withstand the concentrated flames. Feedback from consumer experience and the expertise of the potters facilitated this change. Shared social knowledge of a particular period and consumer needs can thus be seen to have an important role in the increase or decrease of manufacture of a particular ware.

A variety of non-traditional ceramics can be noticed in the pottery assemblage of Ernakulam district. The popularity of a particular ritual during a period makes changes in the pottery assemblage. It can be best illustrated by the growing popularity of ponkala ritual associated with Hindu temples. The Attukal Bhagavati temple located at Trivandrum, South Kerala is famous for the ritual and it commemorates Kannaki (Kannaki is the central character in the Tamil literary work, Chilappadikaram and she is worshipped as a goddess in several temples of South India).

The main part of the ritual is offering ponkala to the goddesses. Ponkala is a mixture of boiled rice, jaggery and coconut. The ponkala commonly prepared in earthen pots, though metal pots sometimes substitute them. The popularity of this ritual attracts thousands of people to the Attukal Bhagavati temple. This ritual has been adopted by other temples of Kerala since the last eight years due to its popularity including temples in Ernakulam district. This has generated a new demand in the region for pots to cook ponkala. The potters are, for this purpose, making a new vessel called the ponkalakalam (a combination of the two words ponkala, denoting the ritual and kalam meaning vessel). Introductions of new forms in this manner into the assemblage shows that traditionally acquired knowledge and skill- base of the potters expand to accommodate the demands generated as part of changing cultural variables.

Individual innovations can also lead to the change in ceramic assemblage. A workshop, called Terra Craft, located at Kozhivettumveli, near Eloor in Trippunithura municipality of Ernakulam district is manufacturing new forms like plates, big jars, and flower vases for which there is a newly rising demand. Here the workshop owner, Jyan designs the new forms that are introduced into the ceramic assemblage. The new forms may attract the consumers and consequently create high demand for the products from this particular workshop. These are produced to compete with other workshops and generate new demands in markets. The increased demand for the products eventually led to the development of small scale production into industrial production. Unlike household production, industrial production caters to wider range
of consumers. Development of transportation facilities and efficient market strategies can take these products to distant markets.

The demand for such new designs and forms in pottery ultimately creates a professional group who are engaged only in pottery designing. Such designing of pottery also eventually leads to standardization of the product to an extent. Some of the workshops are using mechanized wheels to make the pots. The introduction of machines also contributes to the standardization of vessels produced in a particular workshop, unlike the traditional workshops where minor variations can be noticed among the same type of vessels produced in a single workshop. Technological development and professionalism plays an important role in the standardization of pots.

There have also been major changes in the gardening practices of the region in the recent years with professional groups engaged in garden designing. These changes have led to the introduction of flower pot in the pottery assemblage in the region. The flower pots were introduced into the ceramic assemblage of the region in the last twenty years. Interior designing and beautification of houses are also showing new trends in Kerala which ultimately creates demand for new products.

Ecological changes, which may be human induced, can lead to a scarcity of materials that were traditionally used. Their substitution with other material can cause the introduction of a new ware. To take an example, in some areas like the workshops located in Tripunithura, there used to be a practice called kavipooshal or chemannupushal. This is the process of applying a coating over the prepared unfired pot to get a bright red colour. Usually mattykallu (laterite) is used to prepare this coating. In early days laterite was easily available in areas near the pottery workshops. In the recent years there has been a large scale increase of exploitation of laterite hills for soil and of erasing them for constructions. This has led to a scarcity in laterite stones in the vicinity of potter workshops. The potters are using red oxide as a substitute for the laterite stones. The application of red oxide gives a bright red colour to the pots which is different in from those with laterite slip. Change in land use pattern in Kerala has also affected the pottery assemblage of the region. Increased construction and development activities have led to a reduction of cultivated land in the region. This has also affected coconut cultivation. Tapping of toddy from coconut trees has hence decreased considerably. Consequently, the demand for chetumattam, used in toddy tapping, has decreased.

**Conclusion**

The effort in this paper was to understand how social changes affect variability in pottery assemblage. One finds that morphology of vessels is closely tied to their function, new market and cultural demands as well as individual innovations on part of the potter or the marketers. In archaeological studies ceramic variability is a major marker for distinguishing cultural periods. Observations based on ethno-
archaeological studies as the above allow us to have informed speculations about how behavioral pattern of a society contribute to changes in ceramic assemblage of a particular time period.

In most of the archaeological researches, ceramics are mainly used to create typology of particular periods. Ceramics are considered as type-fossils of particular periods and carrying chronological information (Orton et al., 1993). Beyond the typological studies, it is rarely attempted to answer, why vessel forms changing in each periods. The present study shows that the vessel forms are changing due to the influence of some behavioral changes. The understanding of micro regional variables which makes change in the ceramic assemblage in particular periods is important to interpret the archaeological data in a holistic manner.

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