Chapter: 5

Ethno-archeology

Ethnoarchaeology is ethnographic research for an archaeological purpose. The term "Ethnoarchaeology" was coined by Jesse Walter Fewkies in 1900 in his study of Native American migration traditions. According to Nicholas David and Carol Kramer Frank, Crushing (1886) and Mindeleff Brothers (1900) were ethnoarchaeologist, in the Fewkesian sense. The term "ethnoarchaeology" was first used in the title of a paper by Joseph Bauxer in 1957. This term is also known as "action archaeology" by Maxine Kleindienst and Patty Jo Watson (1956) and also as "living archaeology" by Richard Gould (1968). In simple word, "Ethnoarchaeology" is the ethnographic study of living culture from archaeological perspectives.

"Ethnoarchaeology is neither a theory nor a method, but a research strategy embodying a range of approaches to understanding the relationships of material culture to culture as a whole, both in the living context and as it enters the archaeological records, and to exploiting such understandings in order to inform archaeological context and to improve interpretation".(David & Kramer, 2001:2)

"For me, ethnoarchaeology is the study by archaeologists of variability in material culture and its relation to human behavior and organisation among extant societies, for use in archaeological interpretation" (Longacre,1992:1).

"Ethnographic fieldwork carried out with the express purpose of enhancing archaeological research by documenting aspects of sociocultural behavior likely to leave identifiable residue in the archaeological record" (Kramer, 1996).

"The ultimate archaeological purpose of ethnoarchaeology is to obtain ethnographic information about the behavior associated with material object for comparison with archaeological data. Comparative studies of this kind involve analogy" (Thompson, 1992:234).

There are two divisions of analogy: one which is specific analogy or direct historical approach and the otheris general or cross cultural analogy. As far as the

analogy of the present research is concerned, the former analogy is applied.A continuity element or trend links the static and the dynamic units of observation and analysis of this lead to a development of hypothesis/es, which is further put to test.

Ceramic Ethno-archaeology

Studies of contemporary pottery making can be traced back to nineteenth century A.D. Ceramic Ethno-archaeology research and publication was initiated by Crawford in 1953 and the first monograph reporting of Ceramic Ethno-archaeological research was by Raymond H. Thompson on modern Mayan Pottery making (1958). Tulnell studied the traditional potters of Saudi Arabia and the Levant, Carol Kramer studied pottery of Rajasthan(1997) and many more like Bade(1931), Grace Crowfoot (1932, 1940, 1957), Hankey (1968) contributed in the field of Ceramic Ethno-archaeology.

"Concomitant with the rise of "new archaeology" after 1960, the pace of ceramic ethnoarchaeological studies quickened. During the 1960s and 1970s, a number of well known projects were initiated. These include David's work among the Fulani,Stanislwski's studies of Hopi-Tewa potters, Hardin's work with Tarascan Indian pottery in Mexico, White's……" (Longacre, 1992: 4).

Carol Kramer in her book "Pottery in Rajasthan" (1997) carried out an ethnoarchaeological study on the potters of Jaipur and Udaipur. In Manipur, Myanglambam Manibabu conducted a "Ceramic Ethnoarchaeology" onAndro potters for his research program in the Department of Anthropology, Manipur University. His advancement to this sphere and the adoption of the term "Ceramic Ethnoarchaeology" has encouraged many students and scholars to expand the horizon in this field.

Pottery making is a customary art in Manipur. Though many manufacturing sites have lost the tradition of this art, few still practice at decelerate pace (Fig.9). The recent survey carried out by the researcher at the pottery shops at the Ima Kheithel (Bazaar),the biggest market in Imphal area produced a data on pottery production. The maximum earthen wares arrived from Thongjao and Sekmai pottery production centers. According to shopkeepers, Chairel pottery which once was a famous pottery

manufacturing site has reduced itsmass distribution in the Imphal area, which could be because of spatiallocation surplus with the poor roads connectivity or adoption of some other beneficial occupations. The main drawback for losing the art of pottery making in Manipur is the decline in the demand of pottery, as earthen wares are replaced by metal wares. And earthen wares are exclusively used for various ceremony rites and rituals and for fermentation purposes. This reason has adversely affected the income of the potters and hence searches for an alternative to a more reliable profession leaving behind their ancestral profession, amputating the younger generations from the family tradition.

In free hand pottery building, a solid lump of clay is manipulated by modeling and by piece building i.e. by adding coils, strips, slabs, etc. Modeling can be done by two methods: direct hand moulding or by using anvil and beater methods. In the first method, a rough-out is shaped directly by hand and in the anvil and beater method, a paddle is used to shape the vessel by daubing. Sometimes a “Combine Technique” is used on a single vessel i.e. strips method used for building the body portion wherelse the rim and the base are made by hand or made by turn-

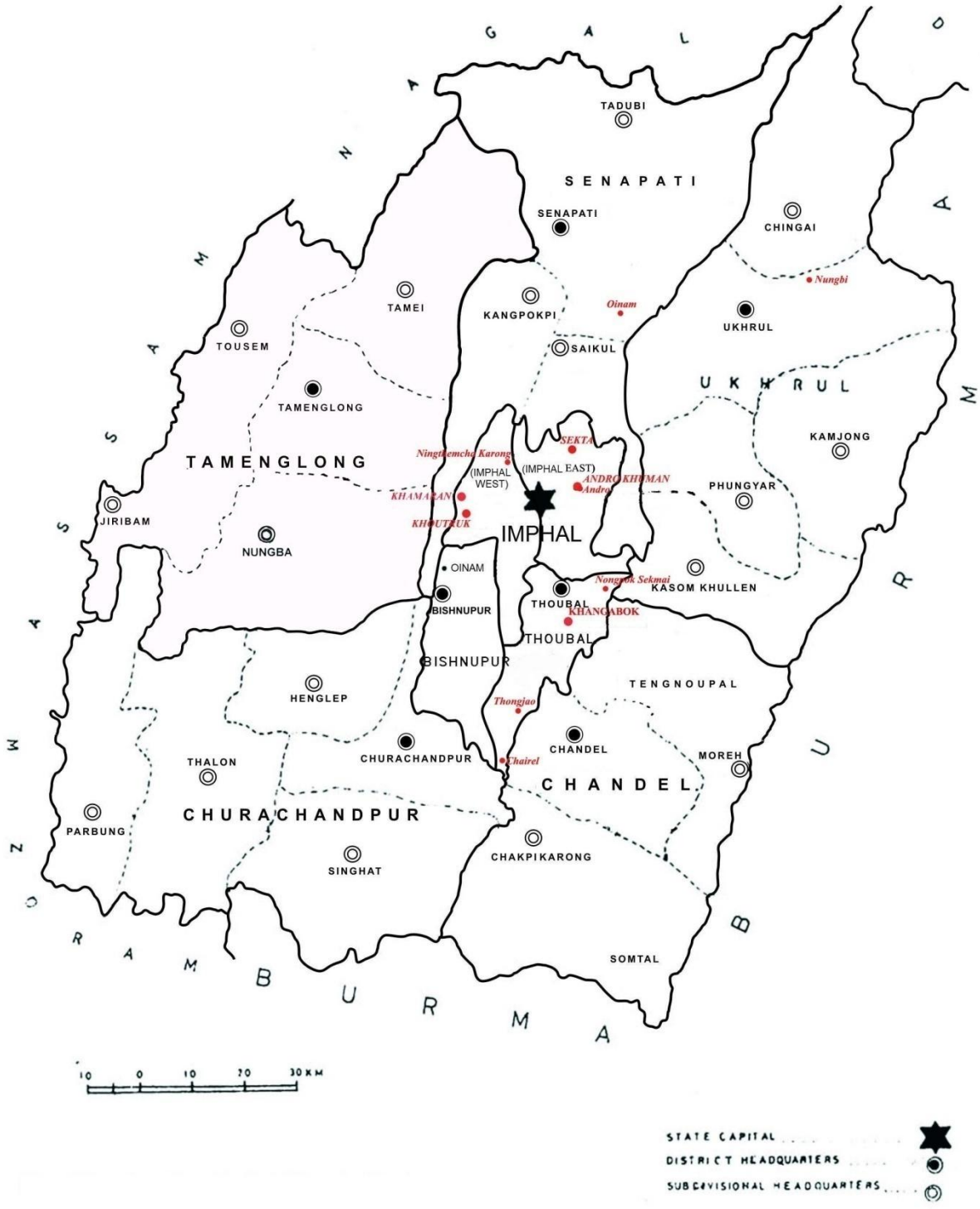


Fig.9 : Map showing Pottery Manufacturing sites

table method, for example; the black drinking vase of Sekta. AtNingthamchaKharong, a pottery manufacturing site, the incense and candle holdersare made by the "Combine Technique", firstly,they are hand modeled and then a rotatory machine is used for the final shaping/ finishing. Pottery can also bemulti-authored. According to Kramer, the Matkas (large vessels) of Jodhpur and Udaipur potters were first wheeled and then paddled by men. Matkas were with different modified rim profile and diameter separately for greengrocers (storing) and salt processing factory. "Many vessels are "multiple-authored", most typically pot is produced by a man and its surface treatment is the work of a woman"(Kramer,1997:50).

Pottery making implements

A potter's paraphernalia can consistsof nature bounded materials to high technology equipments, depending on adaptation to the environment, which surrounds the potter. The implements are mainly made of things which are easily and naturally available to the potters "Potters use a variety of tools, many of them made on hoc basis. For example, part of a tin can is used to scrape vessels base, a small metal gear is attached to a stick and used to impress vessels as they are related, a porcelain sherd is used to incise a large pot, and a small iron arrowhead bartered from a tribal hunter is also used for incising"(Kramer, 1997:57). She also mentions of locally made paint brush from donkey tail hairs and a string of seed pods as burnisher. Miller mentions of legume (*Caesalpiniabonduc*) and Biringham refers to walnut seeds used as burnishers. Some potters use olive or fig sized baked clay stamps with gouges, slashes/ pits on the surface. "A bamboo ring, or a piece of wood or a bulls polished horn tip is used foe thinning the wall of the pot as well as for bringing uniformity in shape". (Saraswati&Behura, 1966:29). "Stone pebbles, glass beads, wild fruit seeds, snail shells and baked clay tools are used for polishing earthern vessels" (Saraswati&Behura, 1966:33).He mentions of snail or oyster shells used as scrapers as at Thonjao, Manipur Similarly, Thongjao potters use naturally available materials such as seed of *Kang* (seed of Entadaphaseoloides) and oyster shell as burnisher, bamboo slide and cloth rag for smoothing and shaping the rim portion an earthen ware. Wooden beaters are used to shape, smoothen and decorate pottery in Manipur(Fig.10). The length of an average beater varies from 17.7cm to 33 cm and the handle is about 12.5 cm, thickness varies from 1-3cm. A beater is generally two

sided, one face is plain and the other is decorated. The plain face is used to shape and enlarge the vessel wherelse the decorated face is used to impress the decoration on the surface of the vessel. There are small and relatively bigger beaters, which are used based on the size of the vessel; small beater for small vessel and vice versa."In Mysore, Andra Pradesh, Gao, northern Parts of Kerela and Madras and also in West Bengal, an engraved beater is used" (Saraswati&Behura, 1966:22).These wooden beaters are also used by other potters in varied parts of the Indian subcontinent."Usually, a beater has got one or two working surface; one side may be flat, and the opposite side may be provided with a depression. In this case, the beater is rectangular in cross-section".(Saraswati&Behura, 1966:23).Another important implement is that the various types of anvils which are either of clay or stone. They also varied in shapes and sizes; the flat ones are generally used for enlarging and the convex ones are for smoothing the surfaces of a vessel. They are sometimes with knob or a grip. At Darbhanga (Bihar) clay anvil with a hole on top for grip (finger) is used. The diameter of an anvil varies from 5-12.7cm. In south India stone anvil is generally used. In many parts of India, potters use baked clay base or wooden base.Apart from beaters and anvils the other implements engaged in the process of pottery manufacturing is described in details according to the manufacturing sites.Two pottery manufacturing workshops have been undertaken for ethno-archaeological study; viz; Ningthamcha Karong and Thongjao.

5.1. Ningthemcha Karong

Ningthemcha Karong, a pottery production site is located 4-5 kms from Imphal, the capital of Manipur. The main products of the potters here are small earthen wares such as *nganthak* (smoking bowls/cups), *chaphu macha* (miniature pots), *dhook-kambi* (incense burners), small flower vases, etc. mainly, producers of decorative item for fairs (melas). Though their products have changed according to the demands of the customers, their pottery manufacturing technique is still indigenous

From their present plight it is difficult to believe that these artists were the makers of Nganthak (smoking bowls or cups) for royal families. Interview with one of the eldest artists at the site narrates that, "a woman from Wangkhei (name of a locality) got married to a man from Ningthemcha Karong she got a pottery manufacturingmachine along with her and this marked the beginning of this pottery making tradition. She

made *Nganthak-a-umbi* (smoking cup of hookah) for Bhuddhachandra Maharaja (R.K.Nupimacha (Abok), Personal Communication, 2012). This statement can be verified by the works of various scholars. "It was initiated by a woman named Laishram Ongbi Maipakpi Devi who got married in this locality during the reign of King Buddhachandra (1941-55)" (Laishram, et al., 1999). The hookahs from Manipur is similar in shape to those of Dhumpia/ Dupan/ Dupan(a), buff lamps made by Haryanvi potter in Jodhpur as recorded by Carol Kramer.

RK.Shantibala Devi (50yrs) who is a daughter-in-law of Abok started making *Nganthak* from 1979, soon after she got married to RK. Surendra Singh (58yrs). She was introduced to this family business by her mother-in-law (Abok) who was also taught by her mother-in-law. This has been a family business for several generations which Abok cannot recall when it actually began.

Caste

The potters in Manipur generally belong to Schedule Caste .e.g. Lois/Chapas of Andros, Nonpok Sekmai, Chairel or Schedule Tribe like the Thankhul of Ukrul and Oinam potters. An exception is amongst the potters of Ningthamcha Karong, where Raj Kumar(s) (RK) *sagai*(lineage) were potters. The Raj Kumar(s) belonged to the highest social hierarchy in Manipur. The interviewees or the subjects of this ethno-archaeological research are RK.Shantibala Devi and RK.Raghumani Singh.

Division of Labour

Generally, all the pottery manufacturing sites have a particular system of labour division based on the gender. For example, generally at Andro, only females who have been married for six months are permitted to start pottery craft, in Chairel, potters are female and in Ukhrul, generally male potters are engaged in Nungbi pottery production. This division of labour is flexible and both genders intervene with each other at certain stages of pottery production. At Ningthemcha Karong both genders participate equally during the process of pottery making.

Resource

The main resource of the pottery production is the clay known as *leitan*. They are found in paddy fields thus known as *loubuk leibak* (field soil). Normally a truck is

hired to get the raw material from the source; one truck of *leitan* is for Rs. 1250. The non plastic temper is not added at Ningthemcha Karong.

Pottery making implements

A potter's paraphernalia can consists from nature bounded materials to high technology equipments depending on the adaptation scale to the environment. "Potters use a variety of tools, many of them made on hoc basis. For example, part of a tin can is used to scrape vessels based, a small metal gear is attached to a stick and used to impress vessels as they are related, a porcelain sherd is used to incise a large pot, and a small iron arrowhead bartered from a tribal hunter is also used for incising"(Kramer 1997: 57).

Phundrei(Ill.X.1) is a rotating machine with a wooden or iron circular disc on one end, which is attached to a rubber strip like those of a bicycle chain. Near the disc, a wooden pointed axle of about 10cm is found, which is used to fix the clay rough out. At the opposite end of the disc near the rubber strip, is another pointed axle for a person to rotate in order to accelerate the motion.

The other obligatory paraphernalia of pottery making at Ningthemcha Karong are as understated (Ill.X.2):

1. *Toksu achauba/suk*(wooden pestle of about 150 cm in length and 10-15 cm in diameter)
2. *Chaloni* (sieve)
3. *Toksumacha* (a wooden hammer generally made of wood of amla, *heigru* (Emblica officinalis).
4. *Khetnabayot* (bifaced flat surfaces, iron rod of about 40 cm with a bended slightly with a beveled tip on one end)
5. *Tengnaba* and *Khetnaba* (Bamboo sticks of about 15 cm which are flat on both the surfaces and one pointed end)
6. *Mako khutnaba* (a wooden stick of about 15cms in length of which both the ends are pointed)
7. *Kabak* (wooden handle instrument with a metal scraper on one end)
8. *Hutnaba khutlai*(borer with a wooden handle and pointed metal ends)
9. Iron mesh/net
10. Boulders

11. Fuel (dry leaves, husk, dried cowdung, straw and small wood logs)

The various stages of pottery manufacturing process at Ningthemcha Karong are described as follows:

First stage (*leibak phaoba*– drying. Ill. X.3): Firstly, the clay is dried for days depending on the season until they are easy to be pounded. Foreign bodies such as grit, pebbles and Organic materials such as plant roots are carefully removed as their presence in the clay will lead to breakage of the pottery later.

Second stage (*leibak sugaiba*- pulverization.Ill.X.4): A plastic sack/bag is spread on the floor on which a flat boulder is placed. Properly dried clay lumps are kept on the stone and pounded by a wooden hammer (*Toksu macha*). It is pounded till the clay lumps are powdered well which is then filtered with a sieve (*chaloni)* as the *leitan* of the paddy field contain plenty of organic materials embedded on them.

Third stage (*e-sing tingba*- soaking. Ill.X.5): The sieved clay powder is collected and poured into a vessel containing water and soaked for a day to smoothen the clay particle. The clay is stirred well in order to filter unwanted material which floats up during stirring of the clay; the water is then drained out and is refilled afresh. The stirring process is repeated ones or twice till satisfied by the potter. After the final process the water is poured out completely and the clay is left to dry until the paste has retained the required plasticity.

Fourth stage (*totpa*- kneading.Ill.X.6): The water is drained and the filtered clay is kneaded thoroughly along with the clay waste of the previous production (*leikup)* on a plastic sack with a wooden pestle (*Toksu achauba/suk*). According to the potter, 4-5 rounds of kneading is necessary; each round of kneading takes atleast 10-15 minutes. After which the clay is tested by rubbing between fingers for smoothness and purity.

Fifth stage (*leimi tumba*- shaping.Ill.X.7): A handful of properly kneaded clay lump is taken and a rough model is shaped by the potter skillfully. Several shaped models are then dried in the sun for half an hour.

Sixth stage (*hutpa*- piercing.Ill.X.8): The rough-outs/models are partly pierced/perforated by *makok hutnaba*, a wooden stick of about 15cms in length which

is use for piercing. The main purpose for piercing is to fix the pottery to the pointed axle of the machine (*Phundrei*) for proper grip.

Seventh stage (*phaoba*- drying.Ill.X.9): After piercing, the rough outs are dried in the sun for half an hour or more than an hour incase of rainy season after which they are ready for the final shaping process.

Eighth stage (*Khetpa*- scraping.Ill.X.10): This stage requires two people to operate, a rough out is fixed on the pointed axle of the *Phundrei*. One person rotates the axle and the -partner starts the *Khetpa* process with *Khetnaba yot* which is a bifacial bevelled flat surface iron rod of about 40 cm with a bended tip on one end. This process will give the final shape to the pottery. "Shaving tools are employed especially for making Chilam (smoking pipes)"(Saraswati&Behura 1966: 30). In a similar method, *kabak* which is an instrument with a wooden handle and a metal scraper on one end is used to scoop out unwanted clay from the pottery. A well moisturized kneaded clay lump is kept near the potter, as a pinch of it is needed to fill in incase of any mistake. Bamboo sticks which are flat on both the surfaces and one end pointed known as *tengnaba* and *khetnaba* are used for minute scraping, cleaning hole and shaping.

Ninth stage (*hutpa*/*hakpa*- decoration.Ill.X.11): When the final shaping is done, *hutnaba khutlai* (borer) which is an instrument with a wooden handle and a pointed metal on both the ends is used for perforation and *tengnaba* is used for decoration, incising the pottery with parallel lines, holes, etc.

Tenth stag**e** (*phouba*- drying. Ill.X.12): After the decoration, the products are sun dried for 2-3 days before the firing process.

Eleventh stage (*mei ietpa*- firing.Ill.X.13-17): Pottery firing at Ningthemcha karong consists of four stages. The first firing process (biscuit firing) of the pottery is done in an open kiln, prepared by placing big boulders forming a rectangular platform, which is left open on one side to insert fuels. An iron mesh is placed above the boulder arrangement on which the pottery are arranged(Ill.X.13). Dry leaves, husk, straw and small wood logs are used as fuel to fire the pottery. Initially, only a handful of dried leaves are ignited as it important to control the firing process to avoid bursting of the pottery due to uneven heating. Frequently a wood log is used to stir and spread the burning fuel to provide uniform amount of heat to all the pottery (Ill.X.14). The

amount of heat is increased by adding more fuel which is done gradually and carefully as more or sudden increase in heat will lead to bursting of the pottery. This heating process is continued for 20-30 minutes before proceeding to the second stage of firing.

The second stage of pottery firing involves a preparation of a circular platform of about 20-30cm thick and the width of which is largely depended on the quantity of the pottery to be fired. The platform is formed by layers of ash and wood logs. The platform comprises of thick layer of ash of about 6-7cm, which is used purposefully to retain the heat for longer period of time and also to support the wood logs which are placed above the ash and lastly, broken discarded sherds of the previous production are arranged on top, these are added to avoid direct or overheating of the pottery. The pottery are arranged on the circular platform in such a manner that the pottery which were placed on the upper portion during biscuit firing is placed first on the platform as they were less heated during biscuit firing(Ill.X.15). This is mainly done to provide equal amount of heat to all the pottery by which pottery breakage can be reduced. But first, only few pottery are circularly piled on the platform leaving a gap in the center which is filled with fuel and then fired. After checking carefully if it has been properly ignited, rests of the pottery are placed.

In the third stage, long dry straws are made into few bundles, the thickness of which largely depended on the quantity of the pottery, these are then arranged around the pottery layers on the circular platform, making sure not to leave any gap or opening which will disturb during firing (Ill.X.16) .

The final and the last stage of pottery firing involve usage of boulders and pebbles to support the bundles of straw which also helps in reheating the pottery. Eventually, after covering the straw bundles completely with boulders, it gives a look of a stone structure as the straws are not visible clearly (Ill.X.17)This is left till all the straws are burned; normally it takes around14-15hrs before the potter is ready to remove the boulders and pebbles.

Normally, the potters at Ningthemcha Karong fire their pottery in the evening and by the morning it is baked and ready to be opened. The boulders and pottery are separated carefully with a help of a tong.

The final products are further decorated by paints and other décors according to the customers' preferences. The final products are then collected privately or delivered to the merchants. This pottery craft business is currently facing a losing battle with the metal counterparts.

5.2. Thongjao

Thongjao situated in Thoubal District,is a pottery manufacturing workshop, which is about 67kms from Imphal. The inhabitants of this area were believed to have originated from Thongjarok in Lamangdong, Bishnupur District. The potters (interviewees) were from Thongjao Awang Leikai. They were Samjetsabam Babhu Meitei(53 yrs), his wife S (Ongbi) Angaobi (51 yrs) and their son S. Ronel Singh (28).The manufacturing technique here at Thongjao is hand-made with the help of anvil and beater(Ill.XI.1).

Caste

The potters of Thongjao generally belong to the Lois/Chakpas clan but it is noticed that this occupation has been adopted by other castes too.

Division of labour

Traditionally, pottery making is for female but now-a-days both the genders engage themselves to this craft. It is also seen that the earthen vessels are "Multi-authored".

Source

The raw materialsfor the production of the earthen vessels are collected from a near bypond, which lies to the north eastern cornerof the manufacturing workshop(Ill.XI.2).It is dug to the depth of about 7 metersto obtain the clay. The potters use*leimu* (black) and *leikok* (whitish) clay (Ill.XI.3),50% of each, and *nungjreng* (sand) as the tempering material(Ill.XI.4)

The following are the implements engaged for manufacturing the earthen vessels:

1. *Yangkok*, a circular winnower which is made of bamboo splits.
2. *Leibakshuk*, a long wooden pestle of about 100cm long which is broad on both ends.
3. *Upak*, a wooden plank.

4. *Ngabong phi*,a special cloth made of thick cotton thread. This is especially made in the village for this particular purpose. A cloth of about 30cmx30cm is worth Rs.50.
5. *Phujae*, a thick wooden mallet of various sizes. These are rectangular in shape with a handle on one end. They are either plain on both the sides or plain on one side and incised with various decoration on the other side. The plain side is used for shaping and enlarging and the decorated side for decoratingthe vessel.In Manipur, these beaters are generally made of wood of heigru (*Emblica officinalis*), khe (*Melanorrhoeavisitatta*, heibi (*Vanuireacompanulata*), wang (*Gmelinaarborca*).
6 *Nung macha*, a fine grained spherical pebble which is used as an anvil.
7 *Kang or Kang-gin* , seed of Entadaphaseoloides.
8 *Kongreng maku*, a bivalve shell of oyster.
9 *Legsum* , a tall wooden stool.
10 *Aubak meikoi*, a circular wooden disc of about 30 cm in diameter. Similar disc of iron with a stand is used nowadays. These are known as turn table machine.
11 *Kuhi*, solution of a bark of *sahikuhi* Pasaniapachyphylla tree.
12 A bamboo scraper of about 2cm x 10 cm.
13 Straw broom.
14 Fuel, dry leaves, husk, dried cowdung, straw and small wood logs are used as fuels.

Process of pottery manufacturing

First stage (*leibak phaoba*– drying (Ill.X.3)& *leibak sangba*– cleaning(Ill.XI.5): The *leimu* and *leikok* are dried in the sun for few days in the courtyard. The *nungjreng* is also cleaned and filtered by winnowing with the *yankok*. Only the finestand clean *nungjreng* is used for preparing the earthen wares.

Second stage (*leibak sugaiba*- pulverization (Ill. X.4): The *leimu* and *leikok* are taken in equal proportion and pulverized on a plastic sheet with a pestle(*leibakshuk*), during which all foreign particles are removed. This process is continued till the clay is free from all the unwanted objects; the pounded clay is then soakedin water in a vessel for about a day.

Third stage (*totpa*- Kneading (Ill. XI.6): After draining out all the water, the soaked clay is taken out on a plastic sheet and sprinkled with the sieved tempering material (*nungjreng*) and kneaded well with the help of a pestle (*leibakshuk*) and also paddled by foot, to close all the air pocket and soften the clay. The clay is kneaded untill the paste has retained the required state of plasticity. They are then kept covered overnight with a cloth or plastic(Ill.XI.7).

Fourth stage: The kneaded clay is then placed on a wooden plank (*upak)* and kneaded further for about 10-15 minutesby constantly damping the potter's hand, then rolling it into a coil, extra clay is removed from the coil and kept aside, the size of the clay coil depended on the size of the pot to be prepared(Ill.XI.8). The coil is flattened and smoothened by pressing with the potter's thump resulting in a thick slab of clay(Ill.XI.9). A circular clay piece is prepared which will make the bottom of the pot and then the already prepared clay slab is set upright round the circular clay piece both the ends of the slab are fused together to form a cylindrical tube which is block on one end(Ill.XI.10). The extra unwanted clay is removed by roughly shaping the cylindrical tube by fingers. Finally, the potter holds the bottom of the cylindrical tube and flattens by moving it circularly which ends in a rounded bottom thus resulting in a rough vessel model. (Ill.XI.11)

Fifth stage: The roughly shaped pot is moundedon an hour glass shaped wooden stand of about 21.5cm known as *legsum.* Then the potter walks around the pot by inserting one hand inside the rought-out and applies a circular sideward motion with the index finger in the interior to increase the height and to thin down the mass of the clay, all this while, the outer surface is simultaneously supported by the potter's left hand. Finally, the edge is made even by removing unwanted clay of the model (Ill.XI.12).

Sixth stage: A rim portion is prepared with a help of a wet rag known as *ngabong phi*, the potter moves around *legsum*, placing the rag on the edge of the claymodel. The first rotation is clockwise and the clay edge is smoothened by placing the cloth lightly only on the edge, which results in forming the brim. The next step is to form the neck portion for which the potter moves anti clock wise by stepping behind with the left leg simultaneously the right leg is dragged along, without lifting it from the ground. The

wet cloth held in between the thump and the other fingers of the right hand and the left hand holds the rag in the interior due to the pressure created by the potter's thump in the interior and other fingers outside the clay, a distinct neck portion is formed with fine striations which can definitely be mistaken for a wheel-made striation (Ill.XI.13).One rotation around the stand results in a long prominent rim portion of a pot, sometimes potters rotate about 200 rounds to attain the best neck portion generally the potter moves around the pot until a perfect rim portion is formed. The rim is shaped slightly outward by the pressure of the tip of the thump while rotating.This rough model is dried in shed for about 24 hours till it is leather hard;sometimes the pots are covered with a cloth (Ill.XI.14).

Seventh stage: The pot which is ready to be finally shaped is placed on the potter's lap who is seated with stretched out legs; the rough model is then taken on the lap and shaped with the help of an anvil and a plain beater method. This is done by inserting slightly damped anvil (*nung*) which is held in the left hand and a damped plain beater (*phujae*) on the right hand of the potter. The potter then flutters the beater from outside and the anvil from inside the pot, this process should be synchronized in order to maintain a balance from both the surfaces without which the shape of the pot will be deformed. In this way the body of the pot is shaped completely(Ill.XI.15).

Eighth stage: Bamboo split, shell or *kang* are used to burnish the pottery. Decoration on the pot is done by incised wooden beaters known as*phujae*. The beaters bear different decorationssuch as herring bone decoration *ngamaru mayek* (herring bone), geometric designs such as (quadrilateral) *tomloi mayek*,*walong mayek* (parallel lines), etc. These beaters are dabbed on the pots, which leave impressions on the surface(Ill.XI.16). Bivalve shells known as *kongreng* (oyster) and *kang*, a seed of *Entadaphaseoloides* is rubbed on the outer surface of the pot resulting in a shinny polished marks which is decorative in nature and normally found on the shoulder portion of a pot. After decoration the pots are left in shed for fouror five days for drying and on rainy climate, more days are required.

Ninth stage (Ill.XI.17&18).:Pottery firing at Thongjao is done in two stages, initially; biscuit firing is done on a platform made of bamboo and then for proper firing, the pots are shifted to a prepared platform. The kiln at Thongjao is made of bamboo posts

which is open on all sides.

In the first stage of pottery firing, the pots are placed on top of the bamboo platform beneath it, some straw and few small wood logs are fired which is consistently stirred with a long bamboo stick, later on more fuels are added, this step is necessary to provide heat uniformly to all the pottery placed above and to control the firing process. The pots are processed for further stage of firing only when the potter is satisfied with the appearance of the pots.

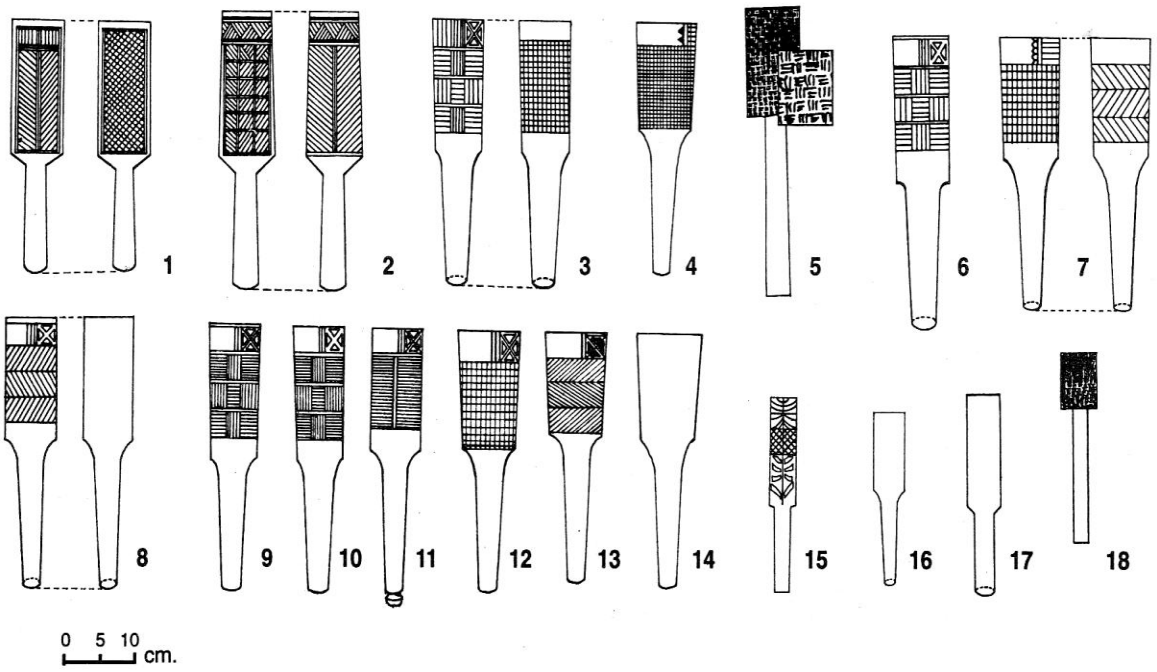
The final stage of pottery firing is done by shifting to the kiln where a platform of straw is first made followed by a layer of rice husk and finally layered with straw again. This layer is about 50 cm high and the diameter of which will depend on the quantity of the pots to be fired. The pots are then arranged in such a fashion as not to leave any space free. The pots are then covered with straw and then eventually by ash making a mound. Fire is ignited from the base and this is left for almost 2 days.

Tenth stage: when there is no more smoke in the kiln then only the pots are carefully removed with a tong and sometimes sprinkled with *kuhi* solution (*Pasaniapachyphyla*) with a brush made of reed (Ill.XI.19). This solution is made by soaking the bark of the *kuhi* in water for almost five days. This is applied to give strength and colour to the pots.

Marketing

The pots are delivered by cart in nearby small bazaars and for long distance bazaars like at Ema Kathel (name of a bazaar) located in Imphal, which is about 67 kms away, a truck or a mini truck is engaged to deliver the pots to the bazaar(Ill.XI.20). The pots are carefully packed in jute sacks along with straws which act as a sock resistant. The quantity of pots packed in per sack depended on the size of the pots, after packing the sack is tied either with plastic or jute rope and in order to make it easy to carry the middle of the sack is tied with a bundle of straw which also protects to keep the pots in their places.

The sacks are taken to the bazaar godown and workers are hired to unpack the pots. The workers arrange the pot in columns by placing each pot invertedly one above other carefully (Ill.XI.21).These pots are left here until the dealers or merchants sell them to the shop keepers (Ill.XI. 22).



Wooden beaters of Nongpok Sekmai (1,2,); Thongjao (3,8,9,10,11);
Chairel (4,6,7,12,13,14); Nungbi (5) Andro (15,16); Oinam (17,18);

Courtesy: Imaoba, 1999

Fig.10 : Various wooden Beaters

Illustration . X

NingthamchaKharong

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9 & 12

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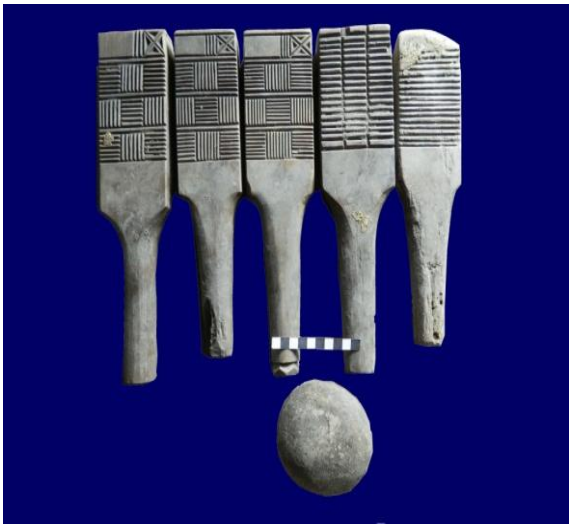
ILLUSTRATION XI

Thongjao



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