The Traditional Ingenuity of Pottery Moulding in Longpi Kajui Village

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Abstract: Longpi is a general reference to two villages (Longpi Kajui and Nungpi Khullen) in ukhrul district of the Indian state of Manipur. Longpi is about 36 kilometres north of ukhrul, connected by national highway 150. Longpi is surrounded by Sihai in the east, Lunghar in the south, Phungcham, paorei and Peh in the west and Kalhang and Kuirei in the north. Longpi is famous for age old traditional pottery known as Longpi 'Ham-Pai'. One unique feature of longpi pottery is that the potters make pottery without using potter's wheel. They still practice the traditional technique of pottery making. It is believed that Longpi Ham-Pai used to be the main cooking utensils and storing foodstuff even for the other neighboring Naga tribes such as the Chakhesang, and Marams before the advent of aluminium and steel pots. Longpi Ham is made from a mixed paste of ground black serpentine stone and a special brown clay. As claimed by the locals, the clay is native to only Longpi village. The black serpentine rock and brown clay are mixed in the ratio three: two if the clay is collected from inside the pit, but if the clay is collected from the ground the ratio is three: three. The mixture is made into a paste by adding water. The shaping of the pot has two steps, (a) shaping the upper portion and (b) shaping the base of the pottery. Depending on the size and design wanted, pots are formed using different technique. At the time of mixing the materials the potters had to cautiously check the entering of other impurities into the paste as it causes the pots to explode during firing. During moulding many tools were used for different purposes. They are: (a) Sopkai, (b) Kapa, (c) Lung-Masam and Lung-Rar, (d) Shimkhur and Suk, (e) Hakha-Naya, (f) Lee-Khu, (g) Ham-Masham, (h) Ham-Khalao, (i) Ham-Matom, (j)Ham-Khalang, (k) Ham-Kapi, (l) Ham-Lel, and (m) Ham-Tadan.

At the time of firing, the potters used special tree leaves known as 'Machi-Ni'. The shine of the pottery is produced by polishing with these leaves.

Keywords: Ham-Pai, Potter's wheel, Serpentine rock, Brown clay, Moulding, Machi-Ni.

'The Traditional Ingenuity of Pottery Moulding in Longpi Village'

Longpi (Loree) is a general reference to two villages (Longpi Kajui and (Longpi Khullen) or (Loree kaju and Lori Seiri), in the ukhrul district of Manipur. Longpi is about 37 kilometres north of Ukhrul district, connected by national highway 202 (Imphal – Kohima via Ukhrul and Jessami highway). The two villages together have a population of over 8000 (eight thousand). Longpi is surrounded by Sihai and Khamasom in the east, Lunghar in the South, Phungcham, Paorei and Peh in the west and Kalhang and Kuirei in the north.

The traditional original name of Longpi is called 'Loree'[1]. Loree means a place where representatives from the Luhupa villages in the north called the Raphei areas come to discuss traditional customary practices. Loree means a collection of large groups of people. Local myths suggests that these two villages serve as an intermediary station for travelers in olden days before the introduction of common salt and metal cooking utensils. Northern Tangkhul areas are endowed with brine spring. So, the people of Tangkhul villages went to Loree Kaju, Kalhang, Marem, Maremphung, Tasom and Jingchui to fetch salt water and baked salt. During the travel people stop over at Loree kajui and Lori Seiri for the night and were treated as guests by the Loree people. It is believed that many clans in the Tangkhul area traced their migration from Loree Kaju village, especially the western tangkhuls.

According to 2011 census Longpi Kajui (Loree Kaju) village total population is.

Population	
Census parameter	Census Data
Total population	1417
Effective literacy rate	48.04%
Sex ratio	1063
S.C population	0.0%

[1] 'Loree', means a collection of large groups of people.

S.T population	96.19%
Census code (2011)	270375

while on the other hand the census of Longpi Khullen (Lori Seire) according to 2011 census is

Population	
Census parameter	census data
Total population	1602
Effective literacy rate	65.36%
Sex ratio	980
S.C population	0.0%
S.T population	98.06%
Census code	270376

Agriculture is the primary occupation of the two villages. About 99% of the population are Christians. Longpi has three school namely,

(a) Worrin High School,

(b) Holy Spirit High School and

(c) Raphei Model High School.

Raphei Model High School is one of the oldest government high schools in Ukhrul district. Holly Spirit High School is run by the catholic parish and Worrin High School is run by the Baptist mission of Northern Tangkhul Baptist Association (NTBA). The total literacy rate of these two villages is 75%.

Loree is famous for the age-old pottery making traditions, known as Loree Hampai[2]. It is believed that Loree Hampai used to be the main cooking utensils and for storing food stuff among the Tangkhul before the advent of Aluminium and Steel pots. Loree hampai as of today has attained national and international popularity. Longpi pottery is one unique art where the potters do not use the potters' wheel. Pottery plays an important role in understanding culture and for reconstructing the past. Pottery is one of the first synthetic materials ever invented by human. Pottery is an art whereby clay and other ceramic materials are rendered into a paste and given the shape of various utensils for domestic use. These utensils are fired at high temperature to harden them for durability. "Pottery in one of the oldest human inventions, originating before the Neolithic period, with ceramic objects such as the Gravettian culture, Venus of Dolni Vestonice figurine, discovered in the Czech Republic dating back to 29,000 – 25,000 BC".[3] Pottey is fashioned into the desired shaped, dried and either fired or baked to for durability. Pottery is one of the most common types of items found by archaeologists during excavations and it has the potential of providing valuable information about the human past. Clay is available in abundant; it is cheap and adaptable which makes it convenient for human exploitation. Usable clay is widely available, so pottery was independently invented in many parts of the world at different times. Odai Yamamoto I site is one of the oldest archaeological sites that give us the evidence of pottery manufacturing. "Excavation in 1998 uncovered forty-six earthenware fragments which have been dated as early as 14,500 BC (ca 16,500 BP); this place them among the earliest pottery currently known".[4] Moreover, "Other pottery of a similar date has been found at Gasya and Khummi on the lower Amur River".[5] Likewise the tradition of pottery making is also found in the Naga areas of Manipur. It is also found that two villages from Ukhrul district and one village from Senapati district still practise the art of making pottery. The making of earthen pot is an important event in the human history and marked the beginning of Neolithic revolution in human society. Its impact had largely transformed human behaviour and found a new way of cultural tradition. Some of the traditional communities in the world still maintain this tradition as their occupation. They inherited the technology of pottery from their forefathers.

In olden days, only Loree Kaju village practice pottery making in ukhrul district, but the raw materials is available in Lori Seiri village (Nungbi Khullen). Loree hampai is made from a mixed paste of ground black Serpentine stone and a special brown clay. As claimed by the locals, the clay is native to only Lori Seiri village. The clay is usually gathered

[2] Hampai is a traditional name of earthen Pottery.

[3] Lienhard, John H. (November 24, 1989). "No. 359: The Dolni Vestonice Ceramics". The Engines of Our Ingenuity. University of Houston. Archived from the original on January 9, 2010. Retrieved September 4, 2010.

[4] Habu Junko (2004). Ancient Jomon of Japan (Case Studies in Early Societies). Cambridge University Press. Pp. 34-42. ISBN 978-0-521-77213-6.

[5] The Archaeology of China: From the Late Palaeolithic to the Early Bronze Age. Cambridge University Press. Pp 68. ISBN 978-0521-64432-7.

by potters and his family by walking 7 km to a mine or pits and digging out and carrying back home with cane basket locally known as Sopkai[6] on their head. Once the clay gets home it must be dried in the sun and later broken up and ground into a fine powder by pounding with an instrument locally known as 'Shimkhur'.[7]

Fig. Serpentine stone.

Fig. Brown clay.

Fig. Sopkai.

Potters pounding the materials with shimkhur.

Likewise, the black serpentine stone is also collected by the potters by digging the ground. The methods for converting stone and clay into powder are different. The Serpentine stone is broken up into smaller pieces by placing the serpentine stone on the flat rock known as Lung Masam[8] and hit the serpentine stone with other smaller stone known as Lung Rar[9]. When the serpentine rock is broken up into smaller pieces, it is then ground into fine powder by pounding with shimkhur. The pounded materials are separated with Hakha-Naya[10]

[6] 'Sopkai', it is a basket made from bamboo sheath for carrying things.
[7] 'Shimkhur', it is a large log which is bowl-shape, used to hold the substance to be ground.
[8] 'Lung Masam', is a flat hard stone used for placing the serpentine stone when crushing.
[9] 'Lung Rar', is a hard stone with oval shape weighing about 1kg. This tool is used for crushing the serpentine rock.
[10] Hakha-Naya, is a traditional sieve used for separating the dust and the large size particles.

Fig. Lung-Masam.

Fig. Lung-Rar.

Fig.Hakha-Naya.

The serpentine powder and clay powder are mixed in the ratio 3:2, if the clay is collected from the pit but if the clay is collected from the surface the ratio is 3:3. The strength of the pottery is provided by the serpentine rock and the brown clay acts as a binding agent. The materials are mixed together by adding water and knead the paste with hand until it produces homogenous paste. Once the kneading is done, a large slap is rolled out in a large wooden plank known as Ham Masham[11] by smashing and slapping with hand and shaped into a rectangle shape. Then the potters measured the size of the pots to be made and cut out the oversized paste with the help of an instrument known as Ham Lel.[12] The measured cylindrical shaped paste is rolled out with an instrument known as Ham-Khalao[13] and placed on the circular base on the Ham Matom,[14] and then it is placed on the Ham Khalang[15] where it is given the desired shape. After which the potters move around the Ham-Khalang, in shaping the pot. Potters' wheel was unknown and so the potters had to move around the Ham-Khalang. After the pots is shaped, it has to be kept in the sun in order to dry up the upper portion of the pots. Once the upper portion is dried, the potters work on the base of the pots to form a desirable shape. The shaping of pottery has two process or steps,

(a) shaping the upper portion and

(b) shaping the base.

The potters first shape the body of the pottery and is kept in the sun for some time to somewhat stiffen the material so that the potters could hold the pot and give shape to the base. The shaping of the pottery has to be done within a day, but he could not complete within a day, the base of the pot should be kept covered with wet clothes, because if the paste become too dry it is impossible to shape the base of the pots.When all shaping procedure is done, it is to be sun dried by keeping the pots up-side-down, which would allow the paste to dry faster, moreover it also helps in levelling the mouth or rim of the pots. During rainy season the potters dry their pots above the kitchen hearth. During drying period,

[11] 'Ham Masham', it is an object cut out from log or sometimes made from plank with flat surface and flat bottom. This tool is used for flattening the paste.

[12] 'Ham Lel', is a small bamboo stick with a small knife shape. This tool is used for slicing, cutting, polishing, shaping the pots, and engraving pictures on the pots.

[13] 'Ham Khalao', is a large round bamboo stem measuring about one and half feet long used for rolling out the measured paste.

[14] 'Ham Matom', is a piece of wooden plank square or semi-circular in shape used by the potters to stand the un-shape pottery.

[15] 'Ham Khalang', is a device used for placing for the Ham Matom and the un-shaped pottery.

the pots should be polished three times with different tools like Ham Lel (bamboo Stick), animal bones, stone, and bee wax in order to smoothen the surface and give shine to the pots. It also makes the surface even. "Burnishing and smoothing are two very common methods of improving the appearance and functionality of ceramic vessels. Basically, smoothing helps in obtaining a more even surface of the ceramic object by removing the rough parts and filling in the pits by using wet hand, cloth, grass, wool, pottery sherds and others".[16] Once the pots are dried and hard enough, they are heated with huge bonfire until the pots become red in colour. When the pots become red it has to be taken out from the bonfire and has to be covered with dried leaves in order to give black colour to the pots, it is then rubbed with a special tree leaf known as 'Machi Ni'[17] (Lithocarpus edulis). The glow of the pot is also dependent on the use of these leaves, if young shoot and leaves are used it gives more glossiness and lustre to the pots.

Fig.Ham-Masham.

Fig. Ham-Lel.

Fig. Ham-Khalao.

Fig. Ham-Matom.

[16] Valado, M.T. 2008, identifying lightly used polishing stones: Experiments and implications. In: New approaches to Old Stones: Recent Studies of Ground Stone Artifacts (Rowan, Y.M. &Ebeling, J.R., Eds.), Equinox Publishing, London: pp. 173-181.

[17] 'Machi Ni', it is a tree leaves used for polishing the pottery after firing to produce shine.

Fig. Ham-Khalang.

Pottery is the main source of income for the artisans and the poor section of the society. In olden days' people of the area came to Loree Kaju village to get their commodities exchanged with earthen pots. The Longpi pottery is unique in style and technique. In olden days the craft is practised by men only. The family members help him in collecting raw materials, pounding, polishing and carrying the pots to a place where it has to be fired with bonfire. Generally, the potters fired the pots in the forest. Now, both men and women practise pottery making in Loree Kaju village while in Lori Seiri only Men practice pottery making. This craft plays an important role in the economic life of these villages. Now most of the poor families of these two villages practise this craft in order to take care of their household expenditure and the education of their children.

Fig. Young shoot of Machi-Ni.

Pottery making is a seasonal occupation in olden days. It largely depends on the weather. During rainy season the potters could not get the clay as it is dug out from the mine and sometimes filled with water, moreover the ground becomes wet and soft, so they were afraid to get inside the pit or mine. Also, as agriculture is the primary occupation of the villagers, during rainy season the villagers divert their attention towards rice cultivation. While on the other hand during dry season, the dry wind act as a catastrophic agent in making pottery. The dry wind dried up the pots very quickly that it causes cracks on the pots. The shape of the pottery also changes during dry season if it not taken care of properly. In the olden days the potters made less number of pots due to lack of knowledge and unavailable of polythene sheet. However, the pottery made during dry season are taken care of properly. The finished pottery should be kept covered with wet clothes in order to increase the drying period of the pots. The fast drying of pots led to cracks on the surface of the pot and change the shape of the pots. Thus, during dry season more labour is required.

Before rainy season started the potters collected a large amount of clay and stored it, so that he will not worry about the scarcity of clay. Right after rice plantation, the potters started his pottery work. So those potters who had collected the materials and stored before the rainy season can resume his pottery work immediately right after rice plantation.

While those potters who have not collected the materials before the rainy season, had to wait for the dry season. Some Artisans collected the clay from the ground without waiting for the dry season. Clay collected from the ground during rainy season is often mixed with other impurities, and it break up into pieces during firing. Even if the pot does not explode during firing it would leak during use. These potters destroyed the image of the village and beauty of craft. Therefore, the potters themselves check such practices. However, due to urgent needs of the family such practices are still prevalent. Whereas the black serpentine rock can be collected throughout the year as it is collected from the ground.

Any discussion of pottery production must begin with the establishment of the materials used; the prospecting of clay and its preparation, followed by forming surface treatment and how pots are fired. During the course of study, we find that potters were using hoes or spade to extract clay from the pits. The potters worked in small group or individually, mainly at household level. As they extracted the clay, they kept checking it to ensure its quality. A potters removed small stone, roots of trees, leaves etc. from the clay.

In olden days the Longpi potters made mainly cooking pots, pot for storing water, pot for brewing rice beer and pot for brewing wine. Pot for brewing rice beer is known as Tur-Ha[18], and the pot used for brewing wine is known as Tam-Ha.[19] The traditional cooking pots are of three types, (a) Ham-Lei,[20] (b) Koklei or Lasu-Ham,[21] and (c) Kasorsa Ham.[22] Ham Lei is a traditional pot used by all section of the society while Lasu-Ham is used by the wealthy family. Kasorsa Ham is used during marriage and Luita Phanit (seed sowing festival).

The villagers used Turha for fermenting rice to produce rice beer. Turha has large stomach and short neck. Tur-Ha do not have stand at the bottom but have rounded and flat bottom. The potters engraved design on the stomach of the pot. Tur-Ha is massive in size and it is about 2-3 feet in height. It is expensive compared to other cooking pots. The pot used for brewing rice beer and storing water are the same, however the villagers called them with different names. When the pot is used for storing water then it is known as Ja Ham.[23] Tam-Ha (pot for brewing wine) is smaller in size. Tam-Ha has narrow stomach and long neck. This pot has stand at the bottom of the pot. The process for making Tam-Ha is longer and time consuming. When the potters completed the shape of the base, it has to be sun tried again. After which the potters had to keep the pot up-side-down and attach a circular stand on to the base of the pot. The potters engrave designs on this pot such as, head of buffalo, spear, etc. They also engrave necklace design on the neck of the pot. All the engraving pictures and designs should be done before the paste is dry.

Fig. (a) Ham Lei.

Fig. (b) Lasu Ham.

Fig. (C) Kasorsa Ham.

Fig. (d) Tam-kHa (used for brewing rice wine).

[18] 'Tur-Ha', is a pot specially made for brewing rice beer.
[19] 'Tam-Ha', is a pot specially made for brewing wine
[20] 'Ham Lei', a traditional cooking pot usually used by all section of the society.
[21] 'Koklei' or 'Lasu Ham', a traditional cooking pot usually used by the wealthy family.
[22] 'Kasorsa Ham', a traditional cooking pot usually used by the villagers during festival, particularly Luita Phanit (seed sowing festival).
[23] 'Ja Ham', is a vase shape pottery usually used by the villagers for storing water.

Fig. (e) Tur-Ha (brewing rice beer).

Fig. (f) Ja Ham (water pot).

Both men and women practise pottery making. There is no social restriction or social taboos on either gender in practising pottery. However, in olden days only men practised this craft, while women looked after the household activities and agriculture. Now a days both men and women practise pottery which gives employment to many educated unemployed youths. Children are also involved in almost all activities of pottery production, beginning with clay collection and more specifically during mixing of the clay. They also help in breaking the serpentine stone and pounding the clay. This indicate that pottery production in these two villages are more organized with division of labour, involving members of the family.

The study also finds that the villagers harvested rain water using earthen pot when modern water reservoir were unknown to them. They used to harvest rain water from their thatched houses using bamboo pipe as water way to the Ja-Ham reservoir. Harvesting rain water and storing it in household earthen pots has increase water availability in rural areas. The villagers also boiled the water and stored in a large vessel Ja Ham. Lack of clean water can contribute to a high level of diarrhea, malaria and fever in olden days. The provision of adequate and safe water is a necessity for healthy living and well-being of individuals. It also enables them to devote more time to food production, with consequent nutritional benefit.

In olden days head hunting was prevalent in the Naga areas. So, the procurement of the materials for pottery became very difficult for the craftsmen. So, the potters collected the clay and stones in large groups for security purposes with warrior guarding them. There were many instances of potters being pierced by head hunters during collection of pottery materials. Therefore, pottery making was not an easy task in the olden days. So, the price of earthen pots were high. According to research findings, the Tangkhul communities used these earthen pots for cooking purposes when Aluminium and Steel pots were unknown to them. Not all but only a few people of the village knew the art. So, even within the village, the potteries were exchanged with other commodities as barter was in vogue. People from all over the Tangkhul areas came to Loree Kaju village and had their commodities exchanged with Loree earthen potteries. It was costly during olden days as these earthen pots were available only in this village and moreover it is the only cooking utensil for cooking purposes. They had their potteries exchanged with all other commodities such as, pig, dog, clothes, and food grains.

During the British rule of the Naga Hill areas of Manipur, the marketing system of pottery also changed. The potters now carried their wares to other villages by carrying them with cane basket. This was so because of the availability of aluminium utensils in the hill villages of Manipur. The aluminium utensils being cheaper and more durable, people preferred it to earthen pots.

Trade and commerce were hampered by head-hunting tradition. Though head-hunting was prevalent during the early days in Naga areas, it was not practised throughout the year. The clan chiefs and warriors of the Tangkhul region would meet and decide upon the seasons during which head hunting was to be permitted. There was a small piece of land called 'Nali Hamor'[24] about 20-30 feet long in every village in which there was no restriction on head hunting. So, people cautiously crossed this small piece of land.

In the early days, the Nagas did not have contact with the outside world. They busied themselves between agriculture and head-hunting. At the same time, they also engage themselves in trading activities though not briskly. With the passage of time the Nagas extended their hunting territory thereby they came into contact with other neighbouring communities. Thus, it enlarged their hunting territory as also trade. Head-hunting thus paved the way for

[24] 'Nali Hamor', is a neutral land which belongs to non.

the expansion of trade. Barter was the first stage of business done in human society. According to B.L. Gupta, "Before the coins, the common means of payment was some kind of medium of exchange or barter system".[25] P.C. Prasad also mention that, "The barter system has been in existence in one form or another in every stage of human civilization except in the early stage of the Palaeolithic era"[26] He also made a hypothesis that in the late stone age the hunters might have exchanged stone-tools for other goods, with Neolithic settlers. They might have exchanged their tools with baskets, honey etc., but this must have occurred in the very late stage of the Neolithic era".[27] The Tangkhuls practised barter system within and beyond the village in order to satisfy their needs. Some articles are measured while some others articles are priced for its utility. There were no market in olden days. The common practice was that the goods were exchanged at the house of the producer. Sometimes, at a place convenient to both the seller and the buyer. Both men and women took part in trading activities.

In olden days, the role of women in the economic life of these two villages (Longpi Kajui and Longpi Khullen) were enormous. The hand of women were seen in every activity. About 70% of the total work were done by women. The involvement of women in pottery making lessened the work load of potters. Normally, a potter alone could made 7-10 medium size pottery a day without taking help from his family members. But when his wife involves in the process of pottery making, a potter could made 15-20 pieces of medium size pottery a day. The potter's wife helps him in pounding, mixing, and in flattening of the paste. The potter's duty was only to mould the pottery.

Money is an essential component of modern society, and its importance cannot be understated in today's world. In the current era, money plays a crucial role in every aspect of our lives, from our daily necessities to our long-term aspirations. One of the most apparent ways that money impacts our lives is through our ability to purchase goods and services. Money is the medium of exchange that allows us to acquire things that we need. Another important aspect of money is its role in the economy. Furthermore, money is essential in terms of social mobility. The ability to access education, healthcare, and other resources is often tied to one's financial standing. Money provides us with opportunities to improve our lives, regardless of our social and economic background. As money is essential in our modern lives, the unemployed youth and women in search of income generation started making pottery. Most of the women potters are widows. Pottery plays an important role in the economic life of a widow. Pottery enables them to give their children education, clothing, food, etc. Now women make pottery along with male counterpart.

As women started making pottery, the number of potters increase considerably, thus the number of productions of pottery also increase significantly. While on one hand, the demand for traditional cooking pottery design is limited within the state, but new cooking pottery design, home décor, and table ware are demanded both within and outside the state. Most of the women potters make traditional cooking pottery. Therefore, they sell their products within the state. The prices of pottery within and outside the state are different. Pottery within the state is cheaper and take longer period to sell their products. There are also some women who make cooking pottery with various design and shape, but they do not make pottery other than cooking pots. Some of the pottery made by both men and women are shown below:

[25] Gupta L.B., Value and Distribution system in Ancient India, Gian Publishing House, 1992. Pp. 4. ISBN- 9788121204057.
[26] C.P. Prasad, Foreign Trade and Commerce in Ancient India, Abhinav Publications, 1977. Pp. 156. ISBN-8170170532, 9788170170532.
[27] Ibid, Pp. 156.

Fig. Koklei or Lasu-Ham.

Fig. Hamlei.

Fig. Kha.

Fig. Cooker.

Steps of constructing pottery:

Fig. breaking the stone.

Fig. pounding the materials.

Fig. separating the dust and Large size particles.

Fig. Mixing the materials.

Fig. mixing the materials with water.

Fig. Kneading.

Fig. The paste is cover with.

Fig. the potter flattens the paste.

Fig. measuring the size of the

Polythene. Pottery to be made.

Fig. The measure paste is roll out With Ham-Khalao.

Fig. The paste is placed on the base.

Fig. Joining between the two end.

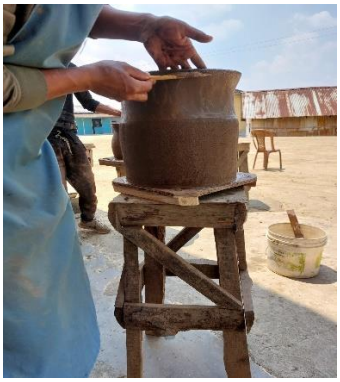

Fig. Spanking the paste with Ham-Kapi.

Fig. Slicing the paste with Ham-Lel and form the shape.

Fig. Drying the pottery before shaping the base of the pottery.

Fig. Shaping the base of the pottery.

Fig. Drying the pottery for polishing.

Fig. Polishing the pottery during drying.

Fig. Firing the pottery with dry leaves.

Fig. Firing the pottery with green pine leaves and small branches.

Fig. Covering the pottery with dry leaves to produce black colour.

Fig. Finally rub with Machi-Ni to produce glow to the pottery.

Fig. Machi-Ni (Lithocarpus Edulis).

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