A Study on Korean traditional jar ‘Onggi’

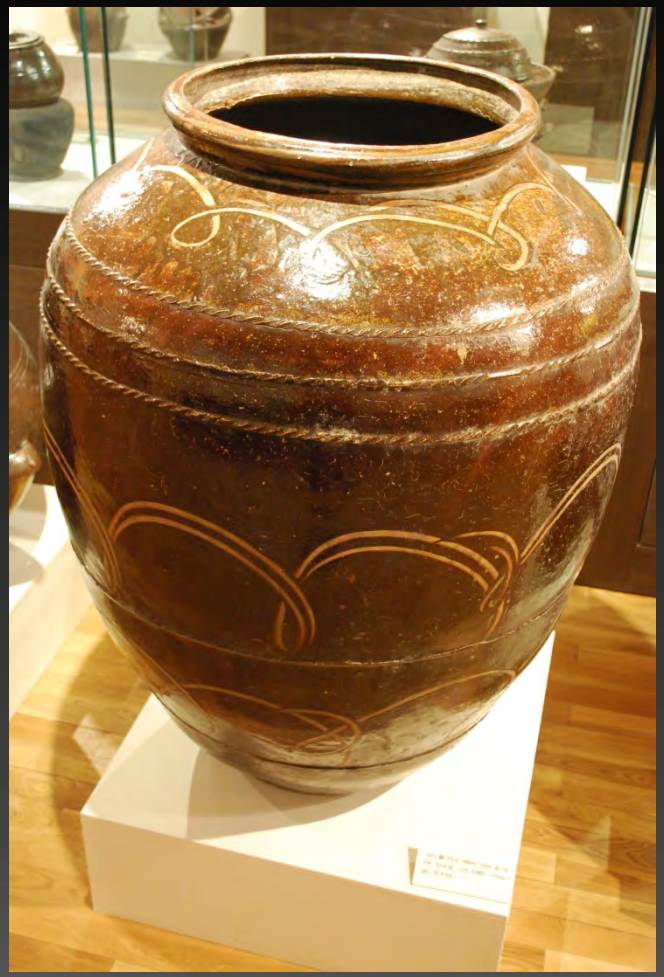
Onggi

Onggi, which could be seen in any Korean residence in the past, is a kind of household good.

Being an earthenware that every home had a dozen or tens of them, Onggi with the longest history of Korean ceramics has been widely used regardless of regions and classes. In this regard, it is the true hero in the history of Korean ceramics.

Concept of Onggi

Being one of the traditional ceramics which were produced most in quantity is categorized as an earthenware from the view point of ceramic engineering. Having been together with the life of Korean people and attached to Korean traditional life as a part of living space, its historical values , aesthetic values, and traditional values were not highlighted as much as those of Koryo celadon or Chosun White porcelain.



Onggi Jar

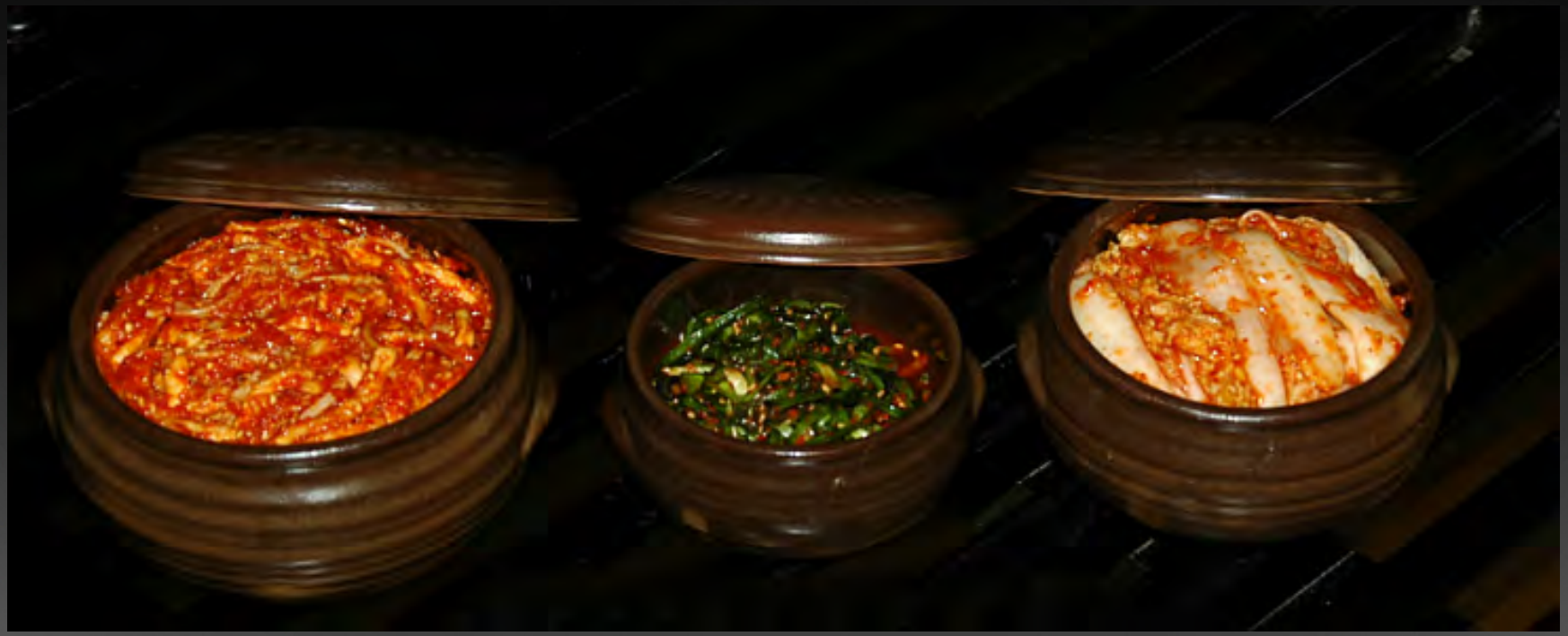
- Its traditional value recognized as a Korean folk material related representing Korean unique folklore and emotional life.

  However, with its technique, source materials, decoration patterns, and usage it has have the longest tradition since the pre-historic age(B.C. 5000) till the contemporary age.

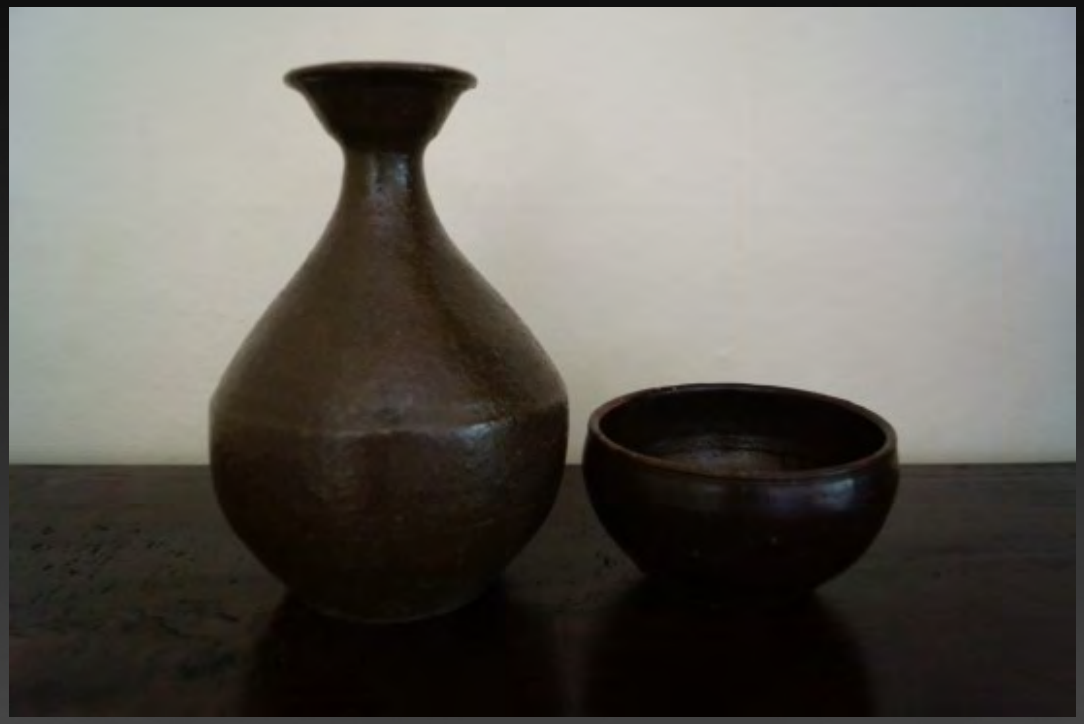
  Onggi can be regarded as a historic data of Korean people.

- Onggi is specifically refers to the earthenware treated with glaze glistening in red, not based on the concept categorizing ceramics and earthenwares. Korean who enjoy fermented food has have used earthenwares as containers for the fermented foods since long time ago including the three nation's period(B.C.57~668), it has been most useful ware for fermenting wine and sauces.

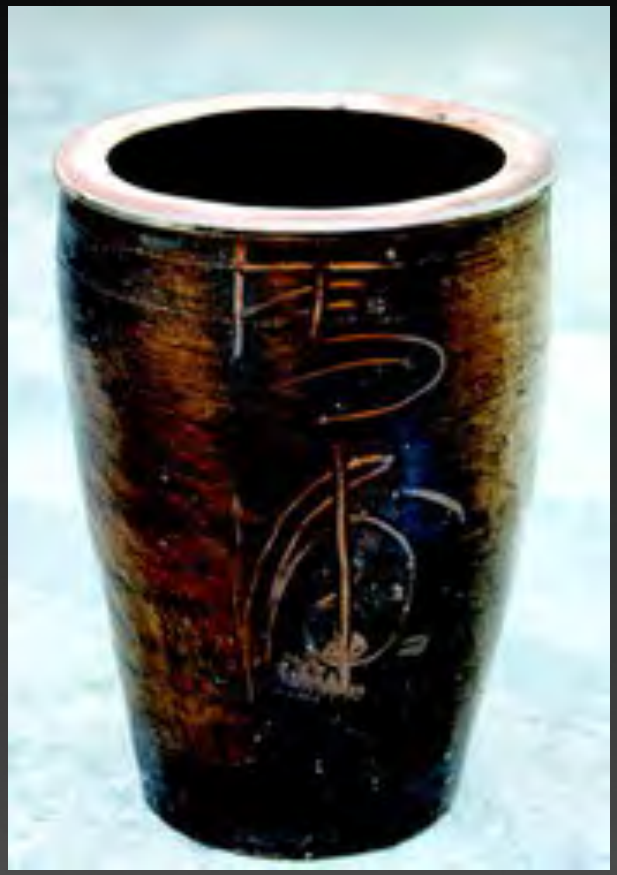
  We can say that Onggi production has continued developing because of the need for the containers for the fermented foods.



Fermenting Kimchi



Fermenting wine



Fermenting sauces.

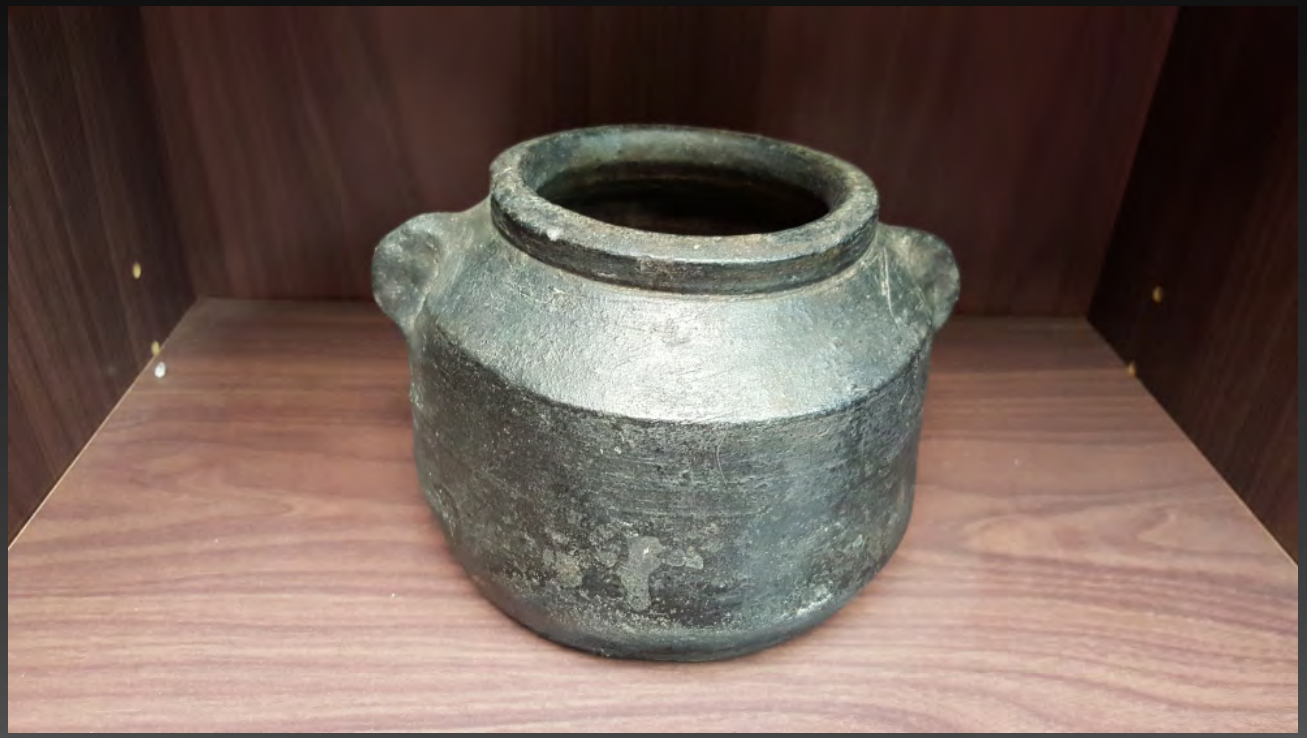
- The special term Ong(옹) has been used to indicate earthen ware jar in old booklets. In the book ‘Sun hwa bong sa Koryo dokyong do’(선화봉사고려도경) written by Suh Kum who wrote people’s lives in Koryo dynasty(918~1392), Ong(옹) had been used to describe a water jar. And it was also described that Dai Ong(대옹) as a storage jar for rice and earthen ware jars as a storage jar for fruits and vinegars were buried under the ground.

  Considering Ong referred to big jar in the records, Ong indicated earthen ware jar until Koryo dynasty(918~1392).

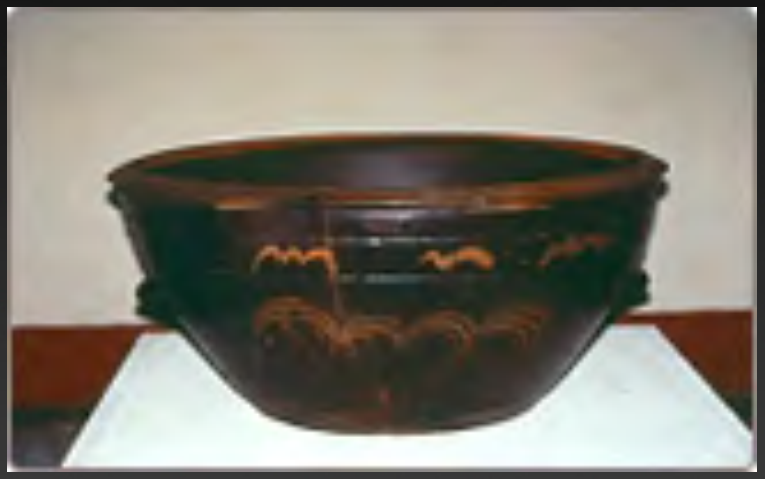
- In the book in Yi dynasty (1392~1910) ‘Se jong sillok jiriji’(세종실록지리지), ‘Sinzung donggukyuji sunglam’(신증동국여지승람) in the category of folk goods, the producing areas were divided into ‘Dogi so’(Place for earthen ware making) and ‘Jagi so’(Place for porcelain making). The book ‘Imwon Gyungjeji’(임원경제지) also wrote that they called the biggest jar, the jar used in everyday life, the jar for fermenting and for the storage ‘Ongaingii(옹앵이)’.

- Ong indicated earthen ware jar.

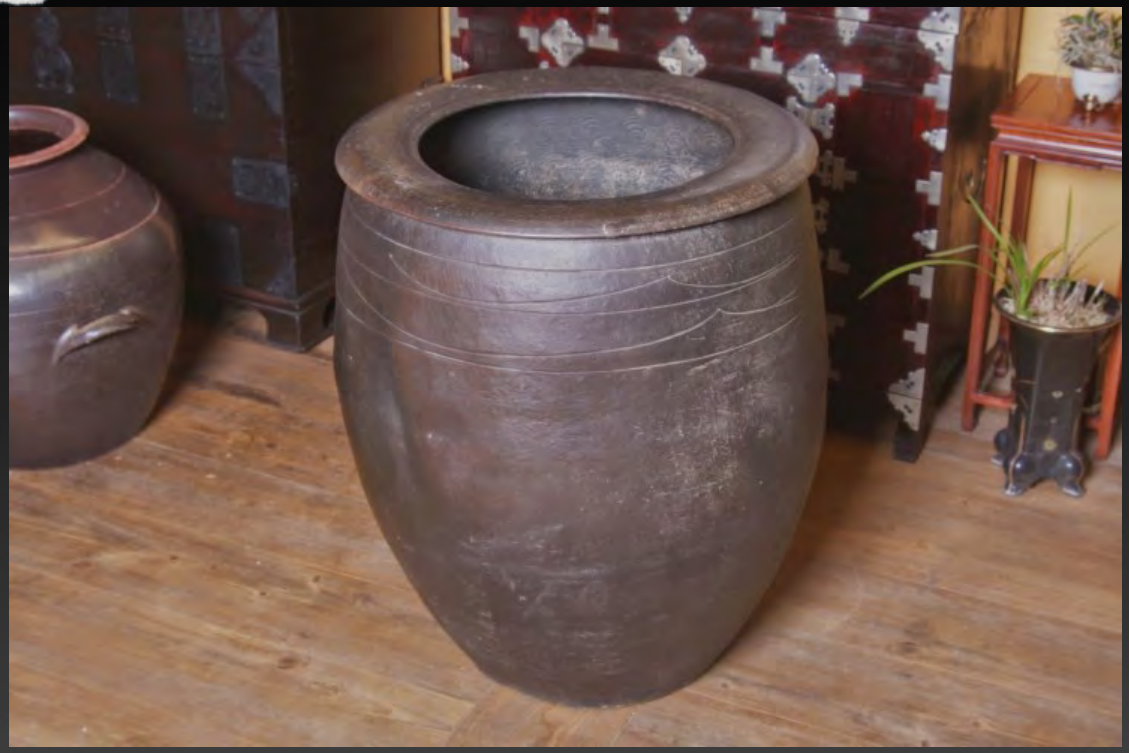
  In a broad sense, Onggi include Pure dok(푸레독), an earthen ware that is not glazed, Ot ware(옻그릇), an earthen ware that is glazed, and Ban ogii(반오지) which is not glazed but with glittering surface because of high temperature firing. They are all kept in Korean earthen ware traditions which lasted from the pre historic stage until the contemporary era.



Pure dok earthen ware that is not glazed



Ot ware(옻그릇), an earthen ware that is glazed



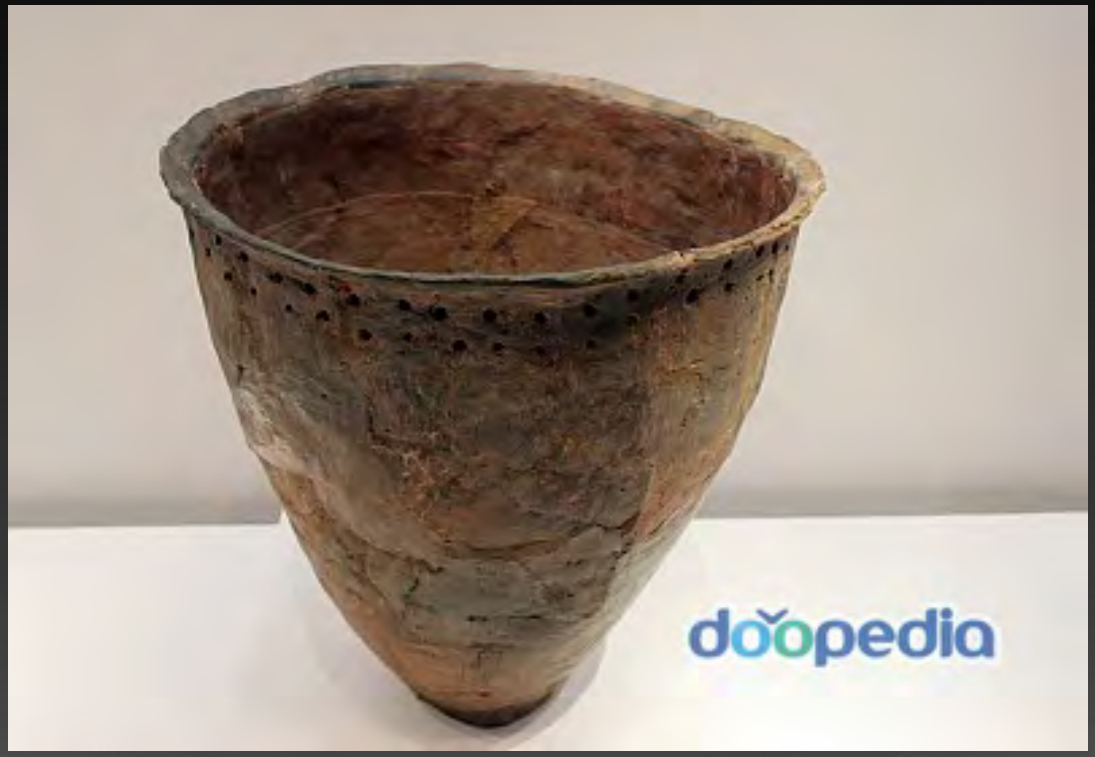
Banoggi not glazed but with glittering surface because of high temperature firing.

History of Onggi

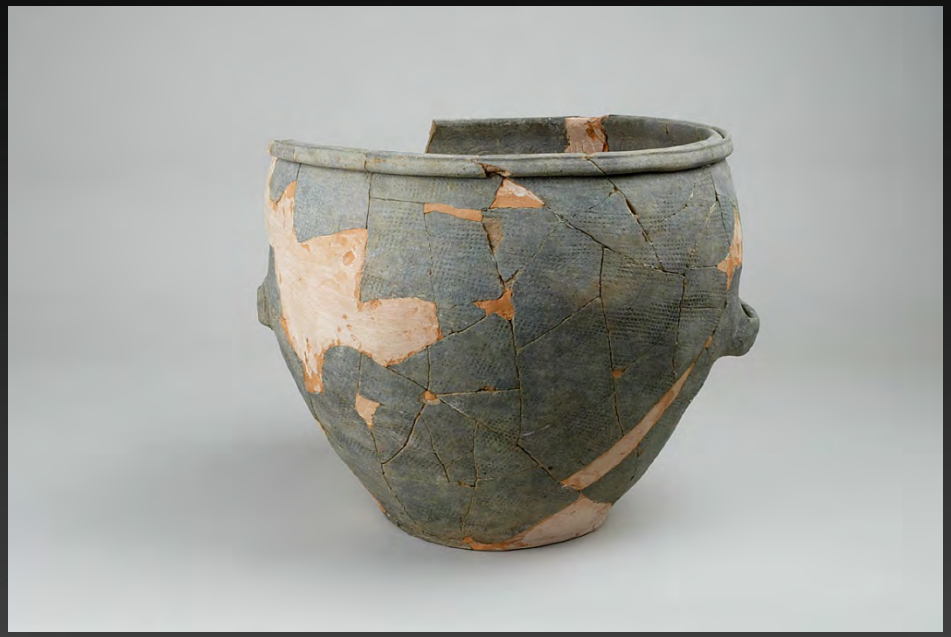
- The history of Onggi started from the prehistoric age(B.C.5000) of Korea.

  Having sustained the making techniques, the feature, and the functions of traditional earthenwares separately from ceramics, this powerful tradition has made large jars until today.

  When exploring the origin of Onggi from wheel throwing techniques, source material, glaze, and plastic working in Onggi, the source materials and the wheel throwing techniques are originated from the earthenwares in the prehistoric times(B.C.5000), the shapes and the patterns are originated from the earthen ware jars without patterns, Jabaigi(자배기) with handles of bronze age of Korea(B.C.1000~B.C.300), Siru(시루) in the jar with handles(손잡이) in Koguryu period(B.C.37~668).

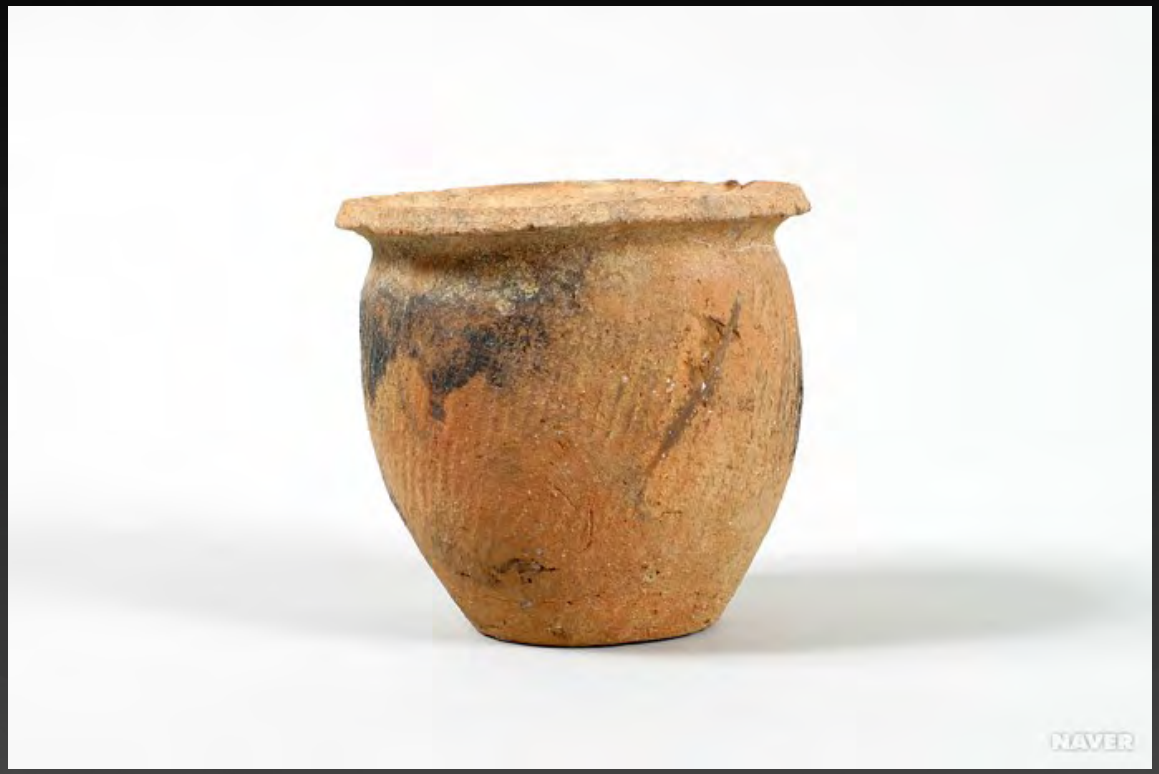


Earthenware in the prehistoric times(B.C.5000)



Siru, the jar with handles in Koguryu period(B.C.37~668)

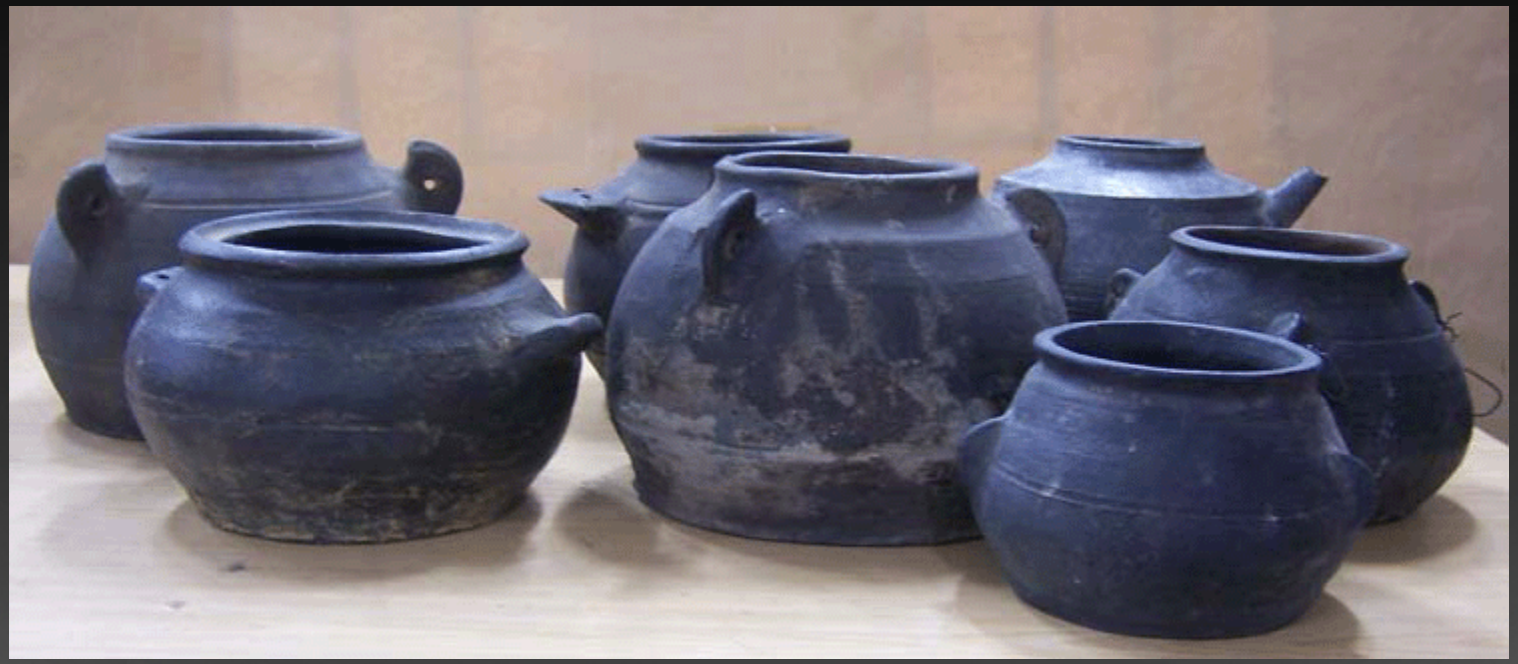
- The basic shape of Onggi jar has the open lid without neck, round jar with bloated belly from the ceramic shoulder, and flat bottom. It has been succeeded from the jar without patterns in late Chosun bronze age(B.C.2333~B.C.300).



Earthen ware, Original three kingdoms period (B.C.100~300)

Earthen ware, Kokuryo dynasty(B.C.37~668)

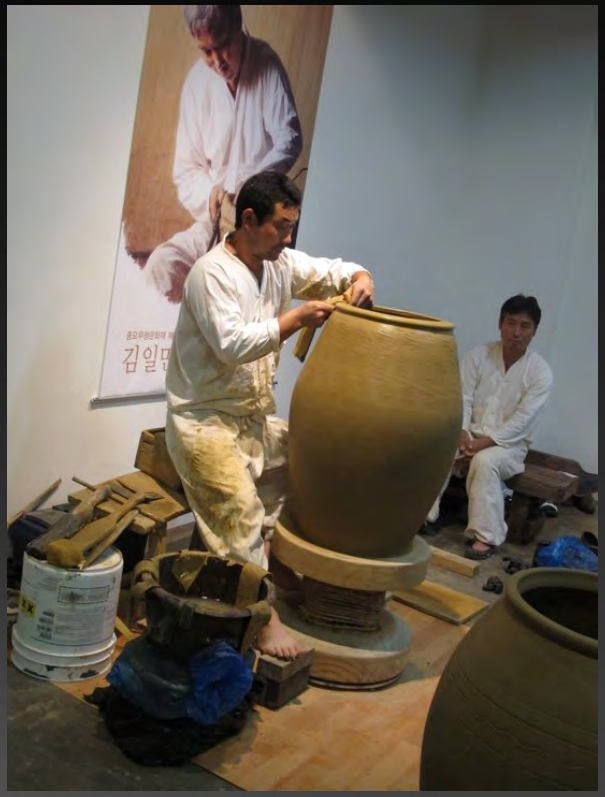
Basic shape of the earthen ware jar without patterns were seen in the earthen wares in the Kokuryo dynasty(B.C.37~668)



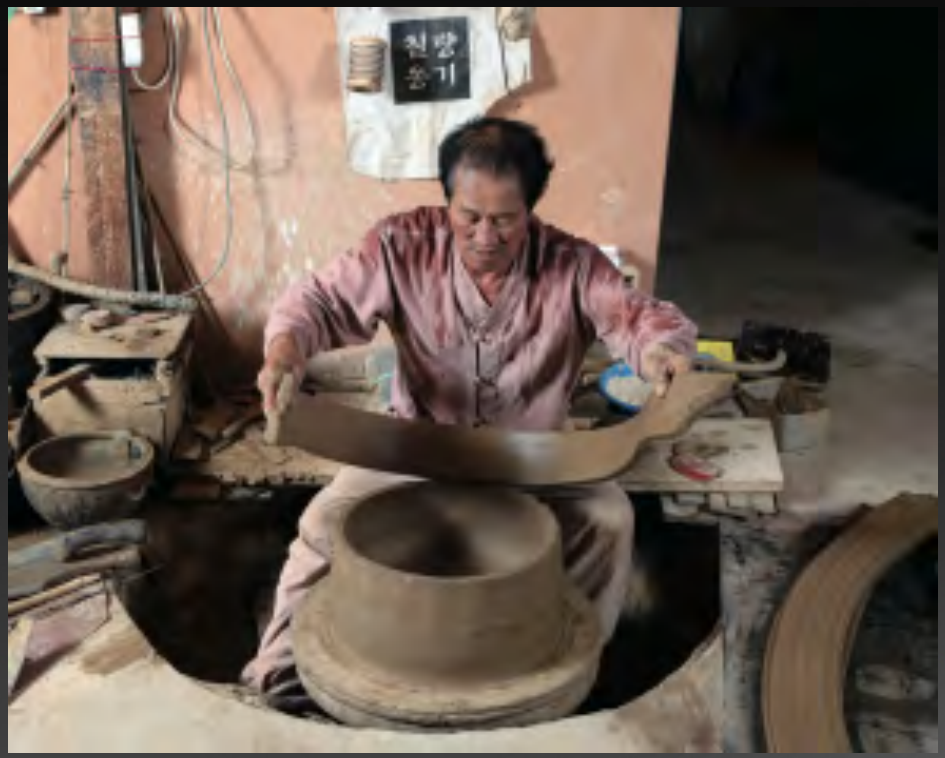
The earthen ware jar without patterns from the late Chosun period(B.C.2333~B.C.108)

Onggi techniques and pattern making

- There are two types of Onggi making techniques succeeded : one is making flat bottom first and building the wall with coils (kwon sang technique, 권상법) and the other is building the wall with slab on the bottom (Chaebaqui technique, 채바퀴 타렴 성형 방법, Yunjuk technique, 윤적법). All these earthen ware making techniques from pre historic age(B.C.5000) were succeeded to the Three Kingdom's(B.C.57~668) hardend grey earthen ware, Koryo(918~1392) and Yi dynasty's(1392~1910) grey earthen ware, Koryo's glazed greenish brown earthen ware, dark brown glazed wide lid jar.
- In contemporary age, potters are still using these techniques.

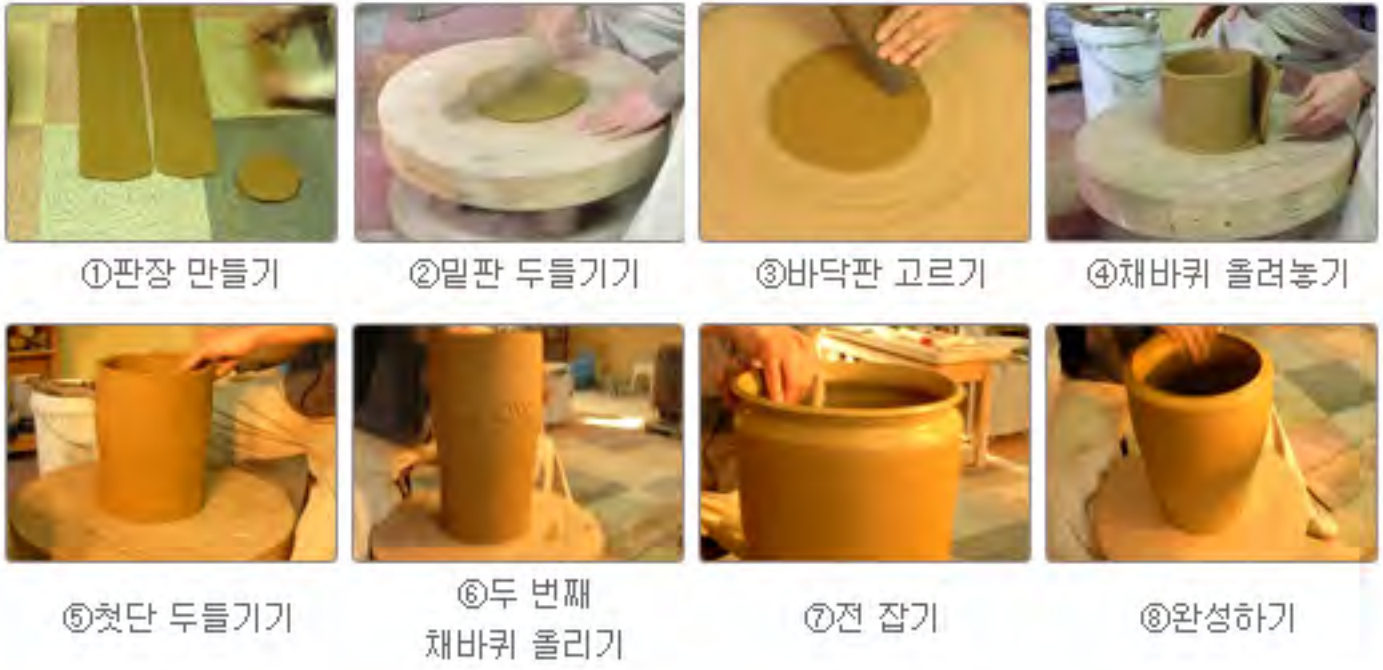


Making flat bottom first and building the wall with coils (kwon sang technique)



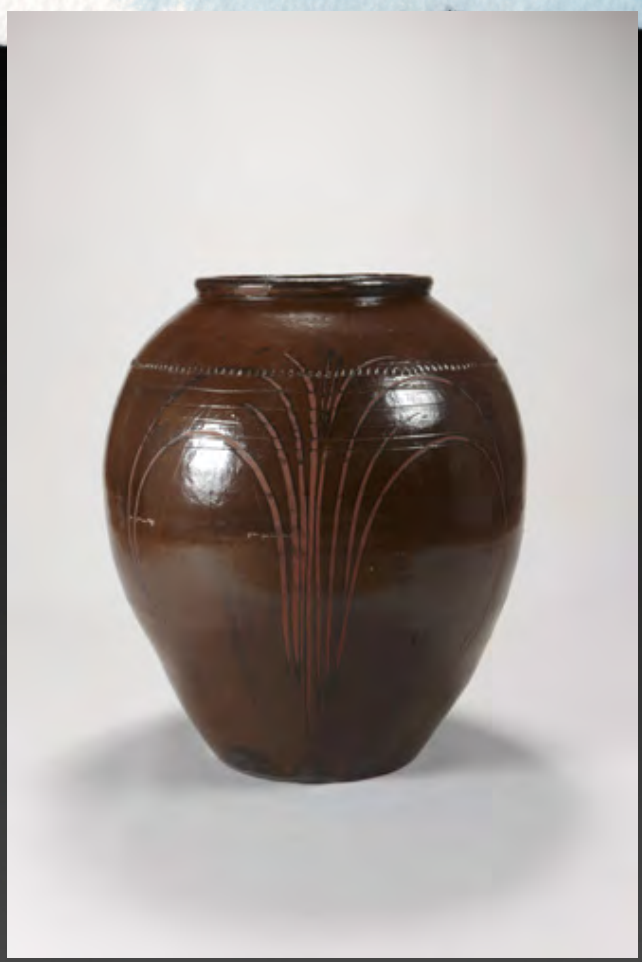
Building the wall with slab on the bottom (Chaebaqui technique, Yunjuk technique).

채바퀴타령 : 금강 이남지역 경남 해안지역 **주로 따뜻한 평야지대 호남지역 전라도 지역**
성형이 빠르고 대형 쌀독이나 술독을 만들기 용이 하다. 겨울철 동파에 약하다.

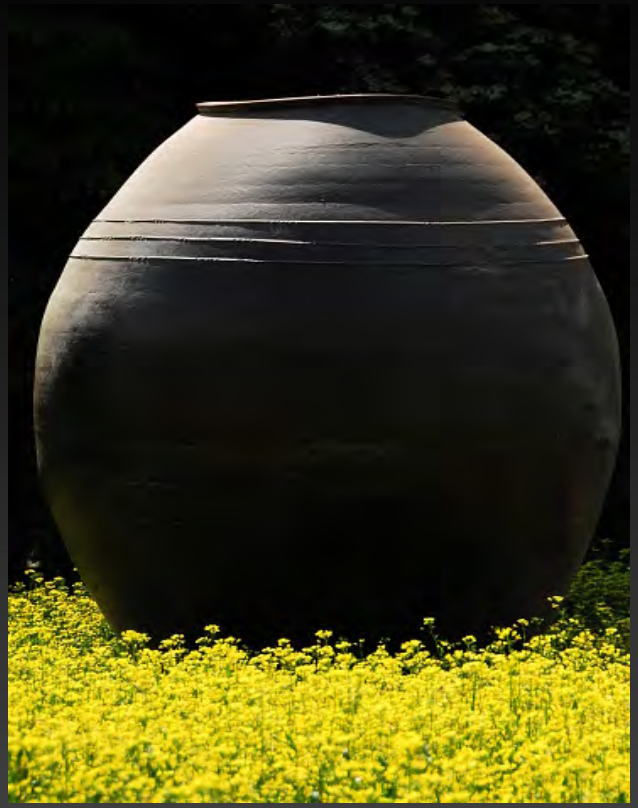


Building the wall with slab on the bottom (Chaebaqui technique, Yunjuk technique)

- As for the techniques for surface decoration, pasting clay band on the surface technique (Dol dai decoration) was succeeded from the prehistoric earthen ware(B.C.5000), making wavy patterns with finger scrubbing out the glaze was used often in the Three Kingdom Period(B.C.57~668), and the pressed patterns made with finger joints and the pressed decorations on the clay band at equal intervals was the same type of technique which was used for the decoration of the earthenwares in the ancient times like the earthenwares in the stone age(B.C.5000) and the clay coffin in Mahan(B.C.100~300).



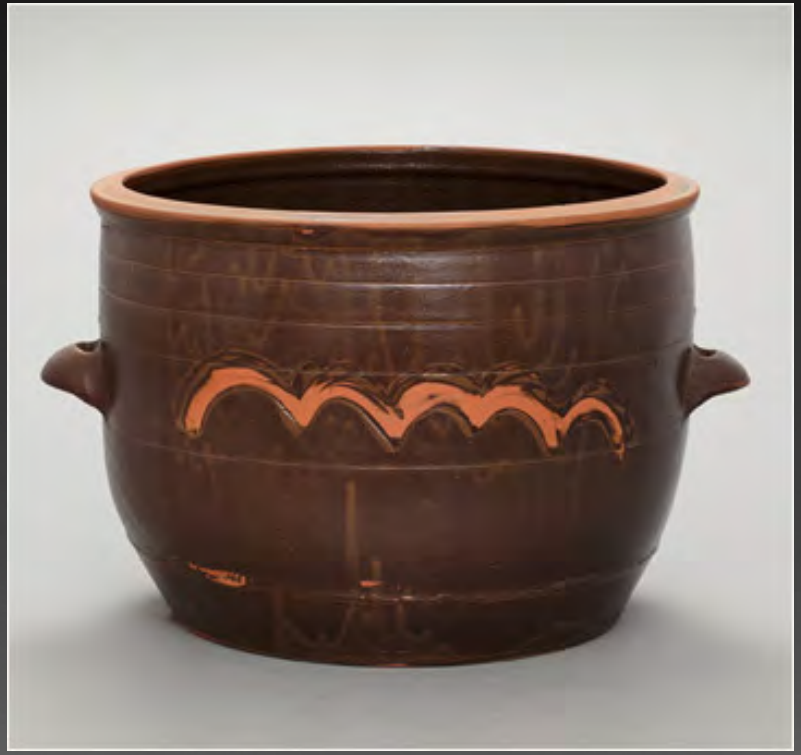
Making wavy patterns with finger scrubbing out the glaze was used often in the Three Kingdom Period



Pasting clay band on the surface technique (Dol dai decoration, 돌대장식) was succeeded from the prehistoric earthen ware.

같은 길이의 흙띠를 붙여 장식한 옹기

Dr. Yang Mo Chung said that Korean water jars created unsophisticated beauty through its simple, function-oriented designs. He also said that the potters' hearts that embraced nature is represented as a mountain on the top part of the body (of the jars).



- The designs of pattern drawings and bodies on the water jars did not contradict nature. The potters did not even attempt to modify nature with the skill of their hands. They did insert themselves into the crafting of the items, but simply allowed the natural movements and rotations of the wheel to create masterpieces. (Jung, Yang-mo, 1998, pp. 223-231).

The shapes of onggi are related with onggijang(the person making onggi), natural environment by region and local food culture. Common pattern drawings of onggi were used among different regions, which were finger tips, onggi tools, leaves and plants. Pattern drawings of spring, waves, strings, plants and flowers were mainly used as onggi pattern drawings.

- Jeju onggi claies have high percentage of iron oxide and are fired in low temperature.

Jeju Borotong Pattern(보로통문양), Whanchi ggi Pattern(환치기문양)

- In Jeolla province, onggi having crop containing function is developed because of wide farming areas.

Jeolla province, Kite Pattern

Hibiscus Pattern

- In Gyeongsang province, different onggi shapes are seen in mountainous and inland area.

Gyeongsang province Fish Pattern

Goblin Pattern

Onggi in Chungcheong province has cylindrical shape from shoulder to body and the diameter of lid and bottom is almost identical.

Chungcheon province Gongju Crane Pattern,

Crops Pattern

The shoulder and neck of onggi in Gyeonggi province is directly connected and it has wide lid.

Gyeonggi province Crane Pattern Bamboo Pattern

- Main onggi in Hwanghae province is Haiju jar which differs from other provinces' onggi jars that are patterned with cobalt and iron oxides.

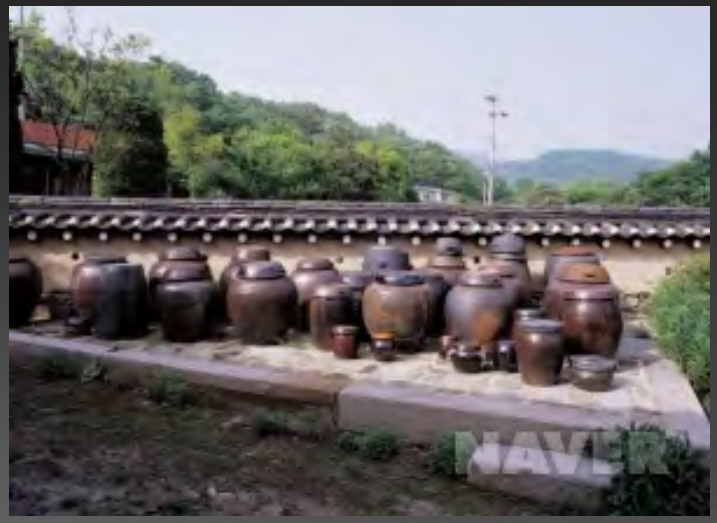
Hwanghae province Fish Pattern

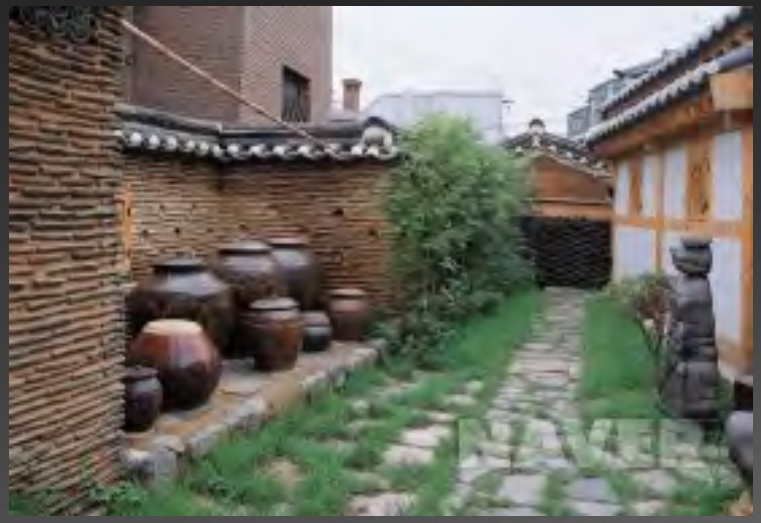
Peony blossom Pattern

In Hamgyong province, they don’t glaze the bottom of onggi because of cold weather.

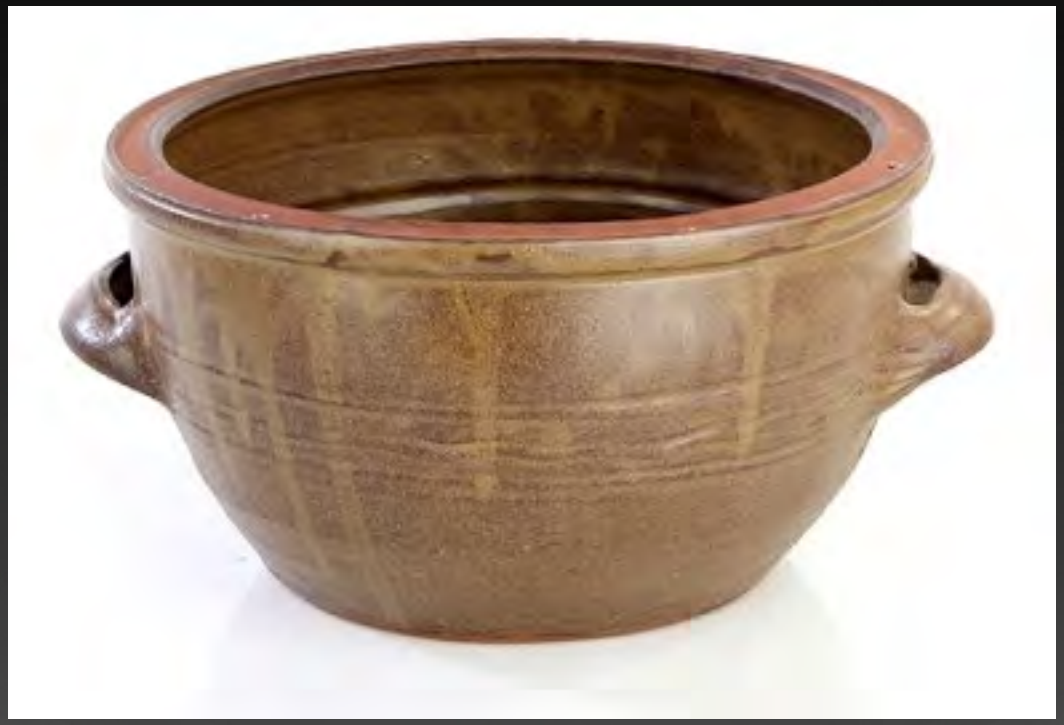
Hamgyong province, Embossed carving fish Patterns, Glaze running Pattern

- Siru, Jabaigi with wide band handles on both side and which can be seen at today's Jangdok dai(Onggi jar stands), and the flat jar lids are similar to today's Onggi. We can see the same Onggi shapes in Siru and jars in the 3rd Koguryo's(B.C.37~668)mural.

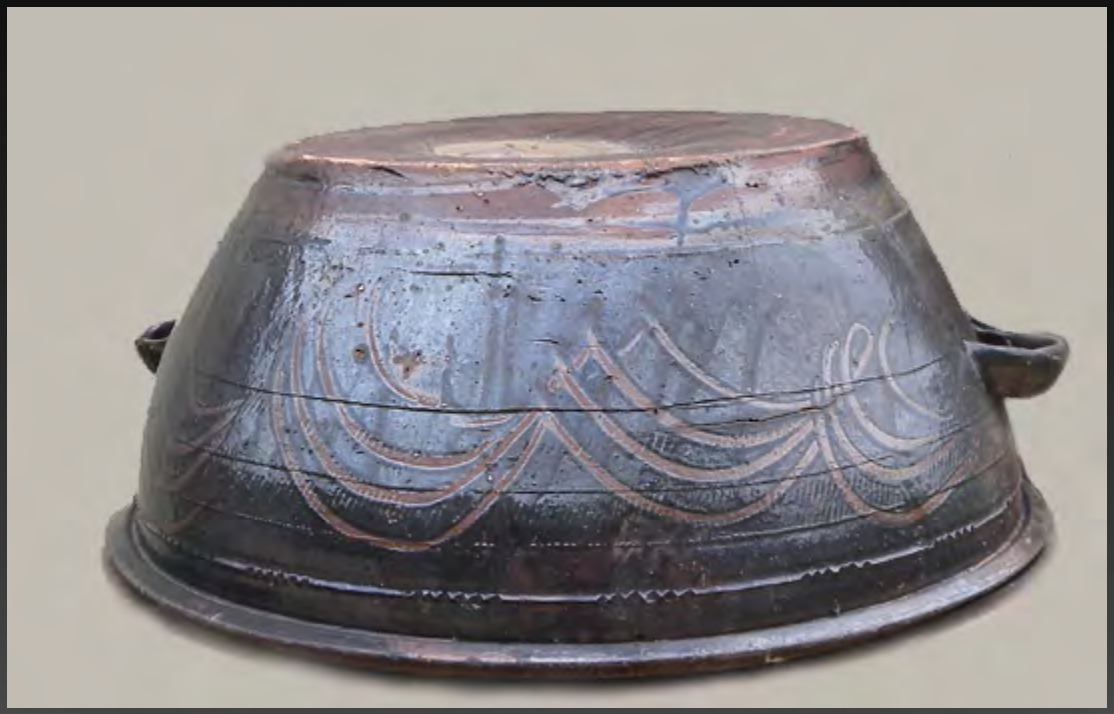




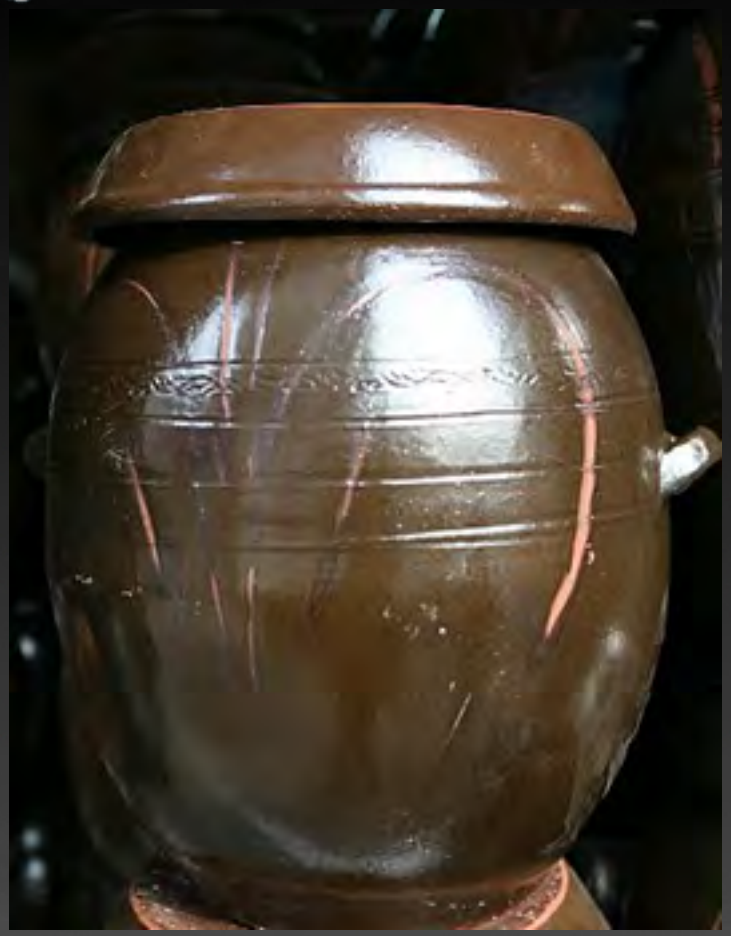
Jangdok dai(Onggi jar stands),

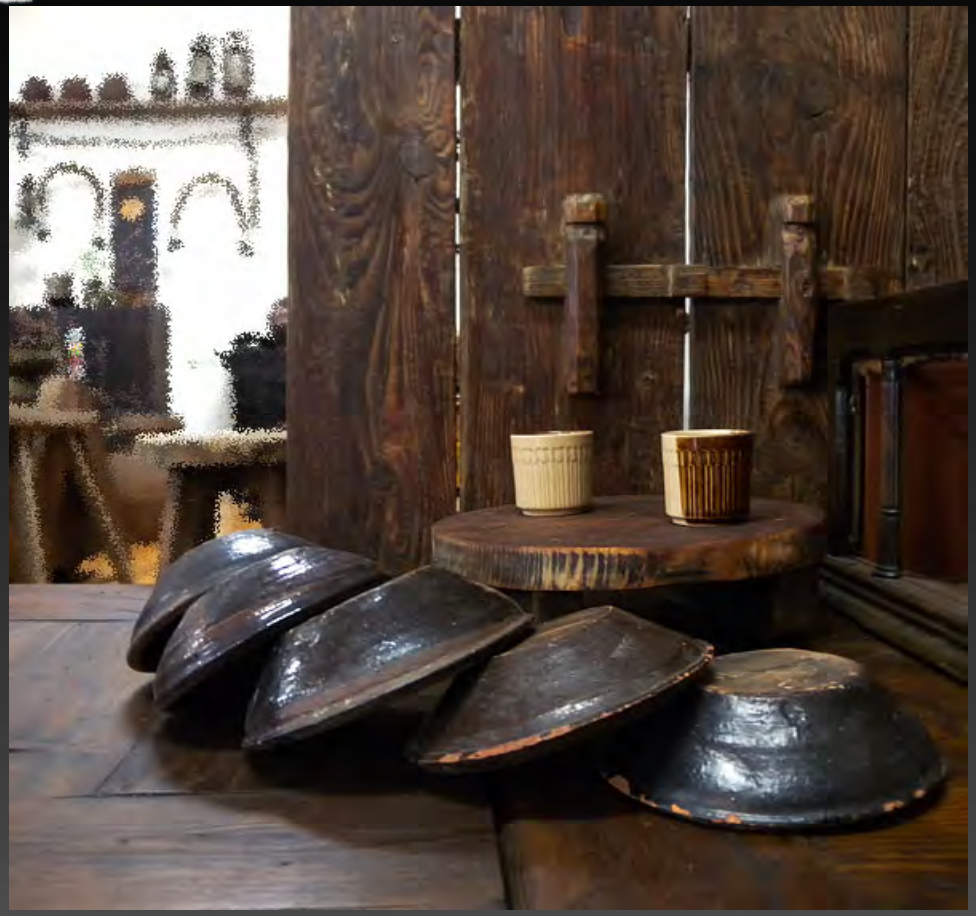


Siru, with wide band handles on both side



Jabaigi

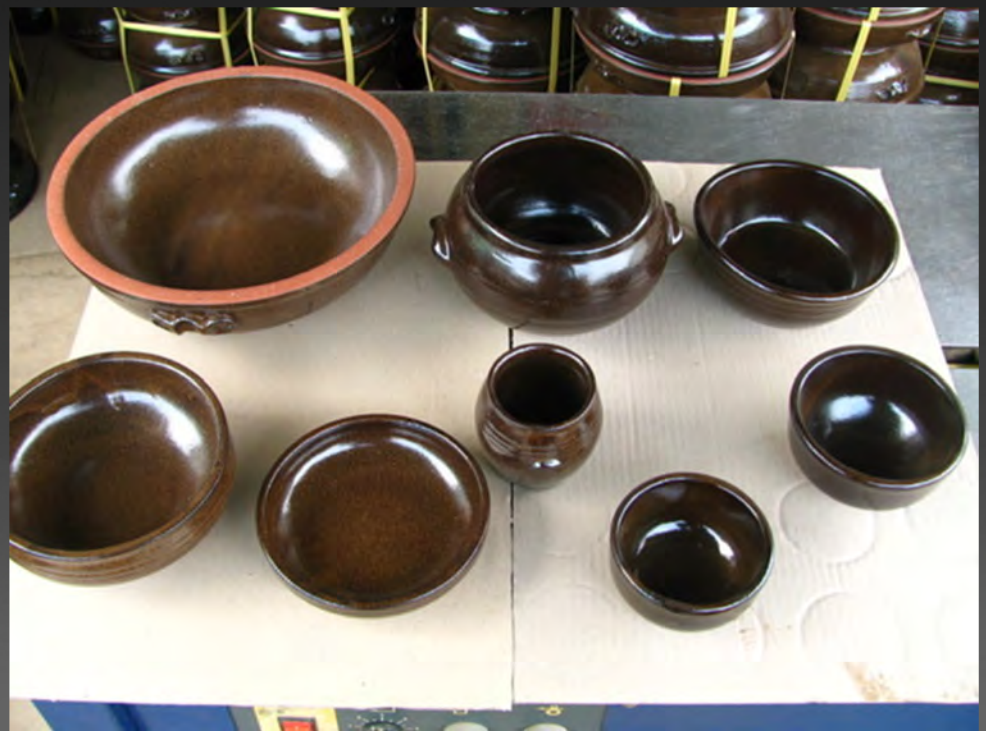


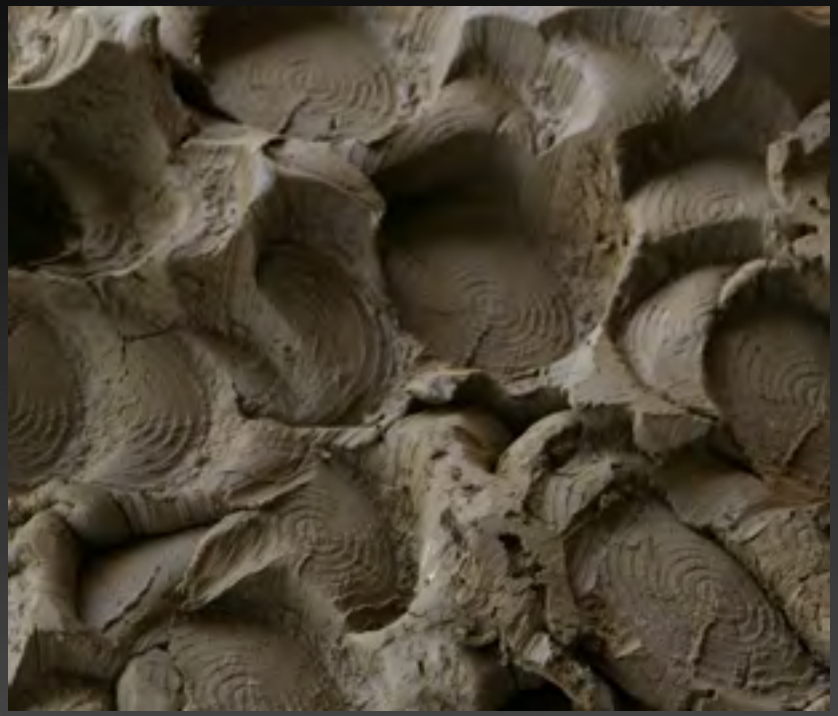


Onggi lid

- Today, the glazing techniques resulted in the development of the high quality earthenwares with glittering surface and more glazed Onggi are produced.

  The glazes used for making Onggi contain red clay with high percentages of iron oxide and ash glaze.





Onggi clay

Onggi for preserving food

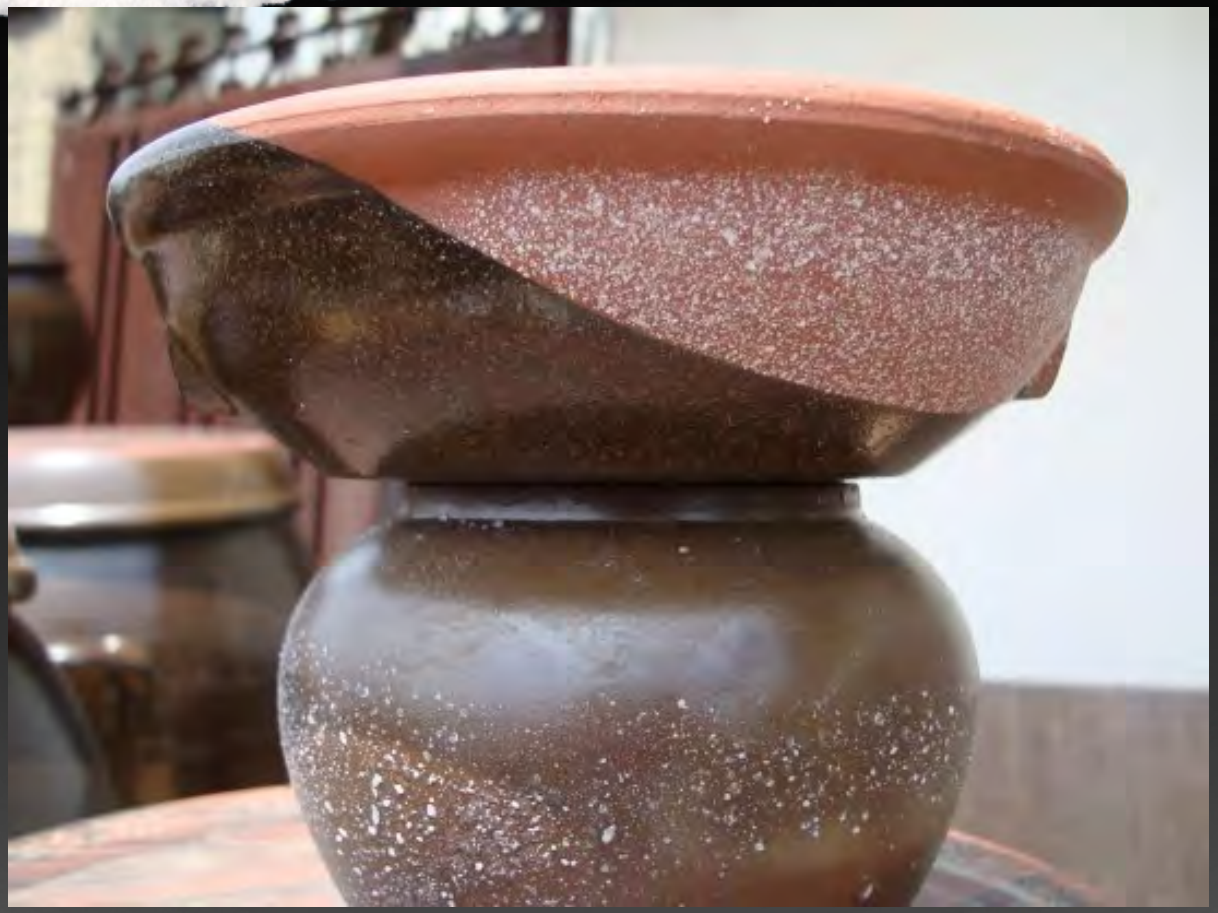
- Because of the sands and the large grains in clay, there are tinny air tunnels formed on the wall, and the inside and the outside of Onggi can be connected through the capillary tubes because glass phase is not formed.

  Those air tunnels helps preserve the temperature in the jar, helps circulation, providing proper amount of air because of active ventilation of air, and protects the food against acidification.

Capillary tubes
옹기 벽의 모세관사진

- It is known that Onggi Jar excretes waste matter from the body.

  It is proved by our being able to see white salty materials on the surfaces of soy sauce, and miso sauce jars. In other words, because of the osmotic pressure, the excessive salt from soy sauce and miso sauce are excreted outside.



Because of the osmotic pressure, the excessive salt from soy sauce and miso sauce are excreted outside.

- Based on the experiments in which the flowers in Onngi last longer than the flowers in glass vase and in which the fishes sealed in Onggi outlived the fishes sealed in glass containers which died after 2~3 days, we can see the fine air tunnels are working.

  There are some research result that there are much more air inside the Onggi than glass wares or perfectly glazed porcelains.

  Another characteristic of Onggi is far infrared rays radiated from the ware.

- Commission Internationale de l'Eclairage (C.I.E) defines that Infrared rays are ray wavelengths between 3.0~1000um, but the wavelength of the infrared ray used in engineering is between 2.5 to 30 um, which is 4~0.5 eV week energy, with no chemical activities. There have been various researches conducted for preserving foods.

  The studies using special enzyme and medicines have been conducted, but recently , the studies in a physical means of using the strong penetrating power of infrared rays radiators are under progress to prevent the early degradation of food quality