

A Chinese cooking pot – 4000 years old



For over 2000 years, from the 3rd millennium BC, the most popular shape of cooking pot in much of China was a strange-looking three-legged vessel, with hollow legs which look like the udders of an animal such as a goat. The pot (14 cm tall) in the picture above is an example dating from around 2000 BC.

Cooking pots with three legs were common in China since early neolithic times (6000 BC), when the legs were like short solid stalks. The legs would have made it easier to rest the pot on an irregular surface after the contents were cooked. They also probably allowed the pot to be more stable sitting on a bed of burning wood or embers, reducing the risk that the pot would tip as wood turned to ash and shifted under the weight of the pot. Some time before 3000 BC a different type of three-legged vessel began to be made in the lower reaches of the Yellow River valley. This was a pouring vessel with a tall spout and three fat hollow legs which each come to a point.

Shortly after this (around 3000 BC) a new Neolithic culture, known as Longshan, spread along the Yellow River, until it covered much of central China. For the first time in that region there is evidence of a hierarchical society, with networks of settlements each surrounding a larger town. The Longshan people discovered that reduction firing makes pottery stronger, and much of their pottery is consequently dark grey, unlike the earlier red-brown oxidised pottery. Reduction firing, where there is insufficient air for the fuel to burn fully, causes iron dissolved in the clay to act as a flux, increasing vitrification (and therefore strength).

The Longshan people are probably best known for their fine black angular pottery, sometimes with arrays of decorative holes, presumably made for the elite class. These elegant vessels sometimes

had walls as thin as one millimetre. And these were being made two thousand years before ancient Greece!



Longshan goblet

The Longshan potters also made more utilitarian pottery. In particular they took the idea of a three-legged cooking pot and the hollow leg design from the earlier pouring vessels and combined them to make a cooking pot with three hollow legs. If these hollow legs were relatively large then, when using the pot for cooking, much of the contents would sit deeper in the fire, as well as increasing the surface area of the pot in contact with the flames, so the contents would heat more quickly, using less fuel. This design was such a success that it spread up and down the Yellow River valley until it was used across much of China. The resemblance of these legs to udders must surely have been recognised at the time and I can't help wondering if this design also has some symbolic significance.

Late in the third millennium BC a different culture became established in the upper reaches of the Yellow River valley, in the west of China. This was the Qijia (pronounced chijia). The Qijia had close ties with the Longshan peoples and they too made these tripod cooking pots. However, unlike the Longshan, a much greater proportion of Qijia pottery was fired in oxidation and tended to have a reddish body, rather than grey. They also often had two looped handles on their pots, whereas the Longshan pots usually had just one handle. One further feature that makes it clear that my pot comes from the Qijia is their characteristic use of serrated (sometimes described as comb-like) ridges for decoration, as seen on my pot.

Although the Longshan and Qijia potters made some pots on a wheel, it is clear that these tripod cooking pots were hand built. The individual legs have an oval shape and it appears that each leg was made separately and then the three legs were joined together. A view of the interior shows quite a sharp join, which is not visible on the exterior because additional clay has been used to reinforce the join on the outside. Once the three legs were joined together a ring of clay was added to form a small circular neck, but its irregular shape shows that a wheel was not even used at this stage. Two short straps of clay were added to form the handles, their positioning a little awkward because of the triangular form of the main part of the pot.



Interior of pot



Handle positioning

To add the decorative serrated ridges the potters rolled the rim of the pot over and added strips of clay between the legs on each side. The rim and these strips were then serrated by pressing in a small stick at regular intervals. There is also an odd little knob sticking out of one side, roughly mid-way between the handles. There is no obvious function of this knob, but neither is it particularly decorative.



Serrated decoration and mysterious knob

The pot is covered on the outside with fine, roughly vertical, grooves one or two mm apart. This sort of fine surface decoration is almost always found on these cooking pots and on many other pots of the time. The grooves are often described as rope or cord markings and in other parts of the world, such as neolithic Japan, similar markings were indeed made by rolling a piece of rope in the surface of the soft clay. However, in the case of my pot these grooves were clearly made by scratching a sharp object into the clay. I think that these grooves may not be merely decorative but have a functional purpose, as it seems likely that any minor chips and abrasions in a grooved surface are less likely to result in cracks in the wall of the pot than the same defects in a smooth surface.

The clay of my pot has fired to a red-brown colour, indicating an oxidising atmosphere for the firing, but areas of the outside surface are blackened with soot and in some parts, especially underneath, there is a layer of fine baked-on ash, which has flaked off in places. The soot and ash marks could have been made when firing the pot or when subsequently using it for cooking. The potters of the time did use fairly sophisticated up-draft kilns for some firings, which would probably not have produced these markings, but it is possible that these basic cooking pots were fired in more primitive bonfires, where sooty patches and close contact with ash would have occurred. It is likely that this pot survived because it was buried in a tomb, to be used by the deceased in the afterlife. There is no obvious evidence of food residue in the interior and it's possible that it was never actually used to cook in.

These tripod cooking pots with udder-shaped legs continued to be popular during the Chinese bronze age, until the final centuries BC. In later periods they did not have handles and the legs were smaller, with a larger pot body above the legs, with the design eventually becoming a more conventional pot with three solid legs, which seems like history going full circle as that is where it all started in 6000 BC.

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