Two Japanese vases – 20th century

In Japan in 1968 the 22-year-old apprentice potter, Michio Furutani, got on his bike and set off, with virtually no money, on two years of travel visiting potters around the country. Maybe it was being away from home for so long, or maybe it was seeing how the varied pottery styles of Japan are closely linked to the traditions and techniques of their locality, but he ended his journey inspired with a desire to create his own pottery based on the traditions of his home region of Shigaraki in central Japan.

Shigaraki is one of the six famous pottery areas of Japan which date back to medieval times. In those times the Shigaraki potters made large seed jars and other utensils for local farming families. These were fired unglazed in kilns known as anagamas. Anagama is Japanese for 'cave kiln' and originally they were literally tunnels under the ground. As there was often a problem with damp, and underground kilns were difficult to repair, the later designs of anagamas consisted of a trough in the ground covered with a roof. In the 17th century, anagamas across Japan were superseded by new kiln designs from Korea, especially one which the Japanese called noborigama, consisting of a series of connected chambers, all above ground. The kilns which Bernard Leach and Phil Rogers fired were noborigamas.

The noborigama kilns had better control over temperature, fired more quickly and with cleaner surfaces on the pots – ideal for glazed pottery. However, the old medieval pottery had a beauty of its own which could not be reproduced in a noborigama. Often ash from the firewood would land on the pots in the kiln and, reacting with the clay of the pot, form a natural glaze which could run down the side of the pot. When there was no natural glaze, in the right conditions a range of red/orange/brown colours (known in Japan as hi iro) could develop on areas of the surface where it had been in contact with the flame.

By the 20th century there were no anagama kilns left in Shigaraki and very little knowledge remained about their design, construction or firing. Furutani had shards of the medieval pottery which he had collected from old kiln sites in Shigaraki and he was determined to re-create the varied surface effects he could see on them. Returning to Shigaraki in 1970 he set up as an independent potter and built an anagama. For the rest of his life he explored ways of adjusting the design and firing of anagama kilns to achieve the effects that he wanted. Over the next twenty years he built over 30 anagama kilns and in the mid-1990s he had six operating anagamas – three in Shigaraki, two in the nearby pottery area of Iga and one which was a completely underground kiln. After his death in 2000 he was described as 'The King of the Anagama'.

The two vases (25 cm and 26 cm tall) by Furutani shown at the top of this note have several features in common, but also key differences which indicate that the one on the left is made in the Shigaraki style and the one on the right is in the Iga style. The vase in Shigaraki style will have been fired in one of Furutani's Shigaraki kilns and the one in Iga style will probably have been fired in a kiln of Furutani's in Iga.

The reason for the differences in the pottery styles from two places so close to one another (about 20 km apart) goes back to the early 17th century, when the obsession with the tea ceremony was at its peak. Before that date the pottery from Shigaraki and Iga was very similar. Since the middle of the 16th century the elegant and simple Shigaraki pottery had become valued for use in the tea ceremony. At that time the masters of the tea ceremony started to praise pottery utensils that had some chance irregularity or defect, which gave them character and evoked the desired mood of beautiful rustic poverty (wabi). Early in the 17th century the shogun's tea master, Kobori Enshu, had the idea of getting tea utensils made with deliberate and exaggerated irregularities and he commissioned the potters at Iga to do this, bringing in two potters from Kyoto to help them achieve his special requirements. This was hugely successful and Iga vases and water containers became some of the most highly valued tea wares of the time.

The sort of techniques used by the Iga potters included distorting the shapes of their vessels, putting irregular 'ears' or lugs to the sides of a vase, introducing a dramatic groove near the rim, and adding small stones to the clay which would burst from the surface during firing. These sort of features resulted in a unique style which has been difficult for Westerners to appreciate. In the 1970s a British writer on ceramics said these vessels had 'aesthetic virtues imperceptible to Western eyes' and described one of the most famous Iga flower vases (image on next page) as an 'apparent monstrosity'.

Old Iga flower vase (early 17th century)

My two Furutani vases seem to me to be siblings, though one is in the Shigaraki style and the other the Iga style. They are similar sizes and both appear to have been thrown and then squashed to form a rough triangular shape (difficult to show in a photo). The only decoration on the Shigaraki vase is a shallow wavy groove incised at the top and the bottom. The Iga vase also has a similar groove at the bottom, which curves up to the top and back in a long loop on one face. The Iga vase also has a wide, irregular, horizontal inward-facing rim (see photo below) and below it a deep and wide horizontal groove (see photo at top of note) made when the pot was thrown, in the distorted exaggerated style of Iga pottery.

Top of Iga pot showing wide inward-facing rim

There are a few patches of natural ash glaze on the Shigaraki pot, especially on the three rounded corners where ash has been caught and stuck to the pot during the firing. Most of the surface of this vase, however, is orange, shading to brown in places. This is the hi iro effect so highly regarded in Japanese pottery. Furutani attributed this effect to soluble iron compounds in the clay which would migrate to the surface when the pot dried, before firing. These iron compounds would react with alkalis in the flame of the kiln to produce the orange colour. Furutani built kilns specifically designed to maximise the hi iro effect. He said that the effect is very temperature sensitive, with the colour burning out if you over-fire. All Furutani's anagama kilns took several days to fire, but relatively fast firings were better for hi iro because there was less risk of over-firing. Furutani believed that it was better to fire in the winter for hi iro effects, as he could fire more quickly because of the stronger draft of the chimney in the cold air. The critical temperature for burn-out depends on which clay is being used. Furutani used a famous Shigaraki clay from a place called Kinose and he had a store of 100 tonnes of this clay to ensure he would never run out.

Both vases have small lumps sticking out of the surface, but these are more noticeable on the Shigaraki vase as the white lumps are not covered in glaze and contrast with the orange colour. These are pieces of the mineral feldspar which naturally occur in the Shigaraki clay and are a very distinctive feature of Shigaraki pottery. They just start to melt in the heat of the kiln, softening their edges, but not melting enough to flow. On the Shigaraki vase there are a few spots where small pieces of feldspar have probably fallen off the surface late in the firing, revealing the grey clay underneath and confirming that the hi iro orange is just a very thin layer on the surface.

Lumps of feldspar projecting from surface

Small pits in surface revealing grey clay under hi iro

Unlike the Shigaraki vase, the Iga vase has large areas of glaze – mainly on the top and on one of the three sides (presumably the side facing the flame and the ash that is carried with the flame). The thick glaze on the top and front has a range of green tones, whereas on the other faces there is a thin colourless glaze with a few vertical runs of green glaze. It has been said that ancient Iga pottery never had glaze deliberately applied to it – that it was all natural glazing caused by contact with ash in the kiln. However, Furutani refers to a technique called yobigusuri, which he says was used by the ancient Iga potters. This involves taking ash from a previous firing, mixing it with water, and pouring

the ash slurry over the pot, before firing, in a way which mimics natural glaze effects. This is consistent with the general Iga approach of artificially introducing exaggerated effects which look like they may have occurred naturally.

This yobigusuri method may explain something which puzzles me about the glaze on the Iga vase. There appear to be two distinct shades of green in the glaze – one is reminiscent of celadons, where the green is caused by the presence of iron in the glaze, but the other looks more like the green colour which you get when there is copper present. While naturally-occurring iron is normal, I think it was very unlikely that there was much naturally-occurring copper in the clay or the ash. Maybe Furutani used the yobigusuri method and mixed some copper into his ash slurry. Then the green glaze caused by this technique would have been supplemented by naturally occurring ash glaze which gave a celadon green colour.

As well as the green from the glazes there is an underlying black area on the lower part of the front face of the Iga pot. On either side of this face the black area tapers down (photo below), suggesting that during the firing burning embers being carried with the flames (from the wood that was used as fuel) had piled up at the bottom of the pot. The embers would have encouraged unburnt carbon to diffuse into the body of the vase. Assuming the vase was fired in a reducing atmosphere, this black carbon would not have burned away and would instead be trapped under the glaze.

Blackened zone from the side

In 1994 Furutani wrote a book 'Anagama: Building Kilns and Firing', in which he goes into detail about the kilns he has built and how to fire anagamas to get different surface effects. He was criticised at the time by other Japanese potters for revealing valuable 'secrets'. In 2006, after Furutani had died, his book was translated into English and became a highly valued resource for Western potters.

The English translation is available for free online at –

anagama_building_kilns_and_firing-translation_noro_lehman_maxwell.pdf (anagama-west.com)

That translation is only of limited value for anyone wanting to build an anagama as it doesn't include any of the illustrations of the original book, but it is a fund of interesting information. Furutani was clearly an amusing and engaging character, and the book contains a number of anecdotes about his experiences with anagama kilns. For example he talks about the time that he had an injury, but he was committed to provide pots for a major exhibition, so he designed and built a new small anagama kiln which could be loaded and fired by someone on crutches. He also tells the story of how he built and connected a new chimney for a kiln while his wife was firing it, switching to the new chimney when the kiln was at 1100^{o}C. His firings would take several days and he and his wife worked in shifts – his wife used to say that she lost 2kg weight with each firing. He also writes about how he fired a kiln during a typhoon, and he went to the top of the chimney in the typhoon to attach a rough corrugated steel windbreak, which he then had to go up and adjust every time the direction of the wind changed. There are also stories about encounters with insects, newts and snakes which I will leave you to discover.

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