

Chinese models of buildings – 2000 years old



The two building models, 35 cm and 30 cm wide, shown above were made in China in the Han dynasty (202 BC to 220 AD). They were placed in a tomb as part of the funeral rites and their similarities in material and manufacture, as well as the fact that they were put up for auction together, suggest they may have been made at the same time and found in the same tomb, possibly as part of a larger group of building models.

The Han dynasty was rather a golden age in China. The country was newly unified, times were relatively peaceful, trade with neighbouring countries was increasing and society was becoming more egalitarian. Confucianism was growing in popularity, with its belief in education and the potential of every person. Open examinations were introduced for posts in government and this created a new class of non-aristocratic highly-educated scholar-officials, often referred to as the shi.

For a long time prior to the Han dynasty the ruling classes in China had been buried in elaborate tombs, constructed like dwellings, with rooms, and furnished with full-size practical objects for use in the afterlife. With the increasing wealth in the Han dynasty the new shi upper-middle class were also keen to use elaborate tombs and funeral rituals to improve the prospects for their deceased relatives in the afterlife. They couldn't afford to construct full-size underground dwellings so they placed clay models of buildings in the tombs, together with models of domestic equipment such as cooking stoves. I don't think it is clear now precisely what they thought about how this would help.

Maybe they believed the deceased would magically be able to use these models, but I wonder whether the models are more of a message to the lord of the underworld to say, this is how the person lived when they were alive, please ensure they are treated as well in the afterlife. This wasn't merely an altruistic act by the relatives of the deceased – there was also a fear of the ghosts of vengeful ancestors who felt they had not been treated with the respect that was their due.

Some of the models of buildings found in Han tombs are amazing structures, made in parts which are then fitted together to make towers several storeys high. In tombs in the north of China, where there was a constant threat of attack from the north, these towers often look like fortifications. In one tomb a model was found which was almost two metres high. In some cases writing has been found inscribed into the clay which gives instructions on how the parts are to be fitted together.

The building shown in the upper image above is only a single storey high and may be a farmhouse. There is no sign of any fortification and the floor plan has an L-shape, which is more characteristic of building models from tombs in the south of China. Markings are inscribed into the walls which show that the building it was modelled on had a wooden frame (see image below). The markings show pillars, cross-beams and brackets at the tops of the pillars which spread the loading on the beams. These brackets are an example of an ancient Chinese building technique call dougong. Similar, more complex, pillars and brackets are seen in the other model (see below). This system of structural support didn't require any nails or fasteners and its natural flexibility made it particularly robust in the event of earthquakes. Most of our knowledge of Han dynasty architecture comes from examining building models as there are no existing timber-framed buildings in China much more than a thousand years old.



In such buildings the areas of wall between the pillars and beams would not be structural and might be made of a latticework and mud screen, or have openings for windows. Inscribed markings on my house clearly represent latticework and there are piercings in the walls indicating various shapes of window openings – diamond latticework, vertical and horizontal slits, etc. The front of the house has a doorway with a half-open door. Maybe the door was left open to give more ventilation to the residents, in the heat of south China. The door has a modelled ring-shaped door knocker and a carving of a strange face above the knocker. This face probably represents a door god (or menshen)

which was intended to keep out evil spirits. It is these small details which, for me, strongly evoke the sense of a real building inhabited by real people. They show that it is not a farm outbuilding, but a home. However, looking inside the model there is no interior detail, which was presumably not felt necessary.



The house is crowned by an impressive L-shaped gable roof. The roof is modelled with a series of parallel grooves, clearly intended to represent rows of roof-tiles. These would have been alternating and interlocking upward-curving and downward-curving tiles (undertiles and overtiles), as can be seen on many traditional buildings even now. Presumably to save cost, the building modeller has not attempted a high degree of accuracy. The rows of overtiles are represented by the flat surface of the clay slab used to make the roof, whereas in reality they would almost certainly have been curved half-cylinders. The model has inscribed curved lines at the ends of the ridges, which represent the ends of curved overtiles. These would have also been used in stacks to elevate the ridge ends.



Most of the surface is a mid- to dark brown colour, but in several areas this has worn away to reveal the colour of the clay body, which is a light buff, suggesting that the model was coated with a dark wash before firing, presumably to make the model look more like the real-life building it was intended to represent. In a few small areas of the roof tiles there is also evidence of a pale green glaze and it is likely that originally the whole roof was glazed, but most of this glaze has flaked off or worn away over the last two millennia. This glaze suggests that the ordinary houses of the time had glazed roof tiles, which I find quite impressive for two thousand years ago.



The second building (lower photo at the top of this note) is a curious structure. On part of it there is a narrow gable roof, of very similar design to that in the other building. The model is in poor condition, with a number of broken areas, and it seems likely that originally this narrow roof extended around the whole of the wall surrounding an open square area in the middle. This roof is supported by heavy-duty pillars and multiple brackets, but for most of the building, apart from these structural elements, there is no wall – it is just open to the outside.



This probably represents a courtyard or garden area. Many models of Han buildings had associated courtyards, though most of them were bounded on one or more sides by the walls of other buildings, rather than being stand-alone like this one. In one corner of this building there is a more solid piece of wall with possibly the hint of a doorway and, intriguingly, a low opening. It is tempting to think that this low opening is intended to provide access for animals, such as pigs, but it is difficult to believe that this structure was intended to contain animals, as it has such open sides. Also, the fancy gable roof around the perimeter and its elaborate supporting structure doesn't seem consistent with a farmyard. I prefer to think of the residents strolling around under the shelter of the roof and admiring the garden inside.



The building models were constructed of flat sheets of clay, joined at the edges. It is possible to see the marks where the maker pushed and smoothed the joints to ensure they were secure (see photo on right above). It is likely that the makers of these models held stocks of a variety of modular parts – rooms and single tiers, which could then be assembled and customised in a multitude of ways to suit each customer's requirements and budget. When museums acquired some of the more elaborate models in the 20th century they were transported in their component parts and the museums had to decide how to reassemble them. There are several examples where museums combined the components in a way that was subsequently found to be wrong, which I suppose illustrates the flexibility of this modular approach.

I have to admit that my interest in pottery mainly focuses on vessels – I find their shape pleasing and I like the associations of their long history as an essential of human life. However, I do find these house models particularly evocative of a past life. They help us to imagine the lives of the people who lived in the houses they modelled, the thoughts of the customer who purchased the model for the tomb of their deceased relative, and the work of the potters who made them.

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