

al. 1986, 14). Another Montelupo dish, also with a flat base, is decorated with a central yellow spiral and green foliage; the back of the vessel displays the thin purple lines characteristic of Montelupo ware (*ibid.*, 14).

Other noteworthy sherds recovered from the moat fill include fragments of Portuguese faience dishes, one decorated with zones of concentric diamond-shaped motifs with traces of distinctive plant stalks on the outside and the other decorated in blue and white with a pierced heart (*ibid.*, 68). A flat-based dish from the Low Countries, possibly Friesland (Korf 1981, 216), displays, in blue on white, the Israelites sent by Moses to explore Canaan, dressed in period costume and carrying grapes slung on a pole (an episode from the Book of Numbers, chapter 13, especially vv 23-24).

The question now remains of what these various spectacular vessels are doing inter-mixed with the considerable waste from a London tin-glazed ware pottery. One possibility is that this material is domestic waste which has become mixed with industrial waste. This is unlikely, as similar high-status ceramics have not been found on other excavations in this area of Rotherhithe. Rotherhithe cannot be regarded as a wealthy area of the South Bank in the 17th century; it was an industrial centre, whose activities included tanning and ship-building and repair.

It is possible that the imported vessels were acquired as 'bench pieces' to inspire the pot painters of Platform Wharf to produce a greater range and variety of vessels in what was a highly competitive market. Two major potteries were in production during the life span of Platform Wharf, both of which were within easy walking distance of the City of London, whereas Platform Wharf was not so readily accessible. The wasters produced at Platform Wharf do not, however, display any unique inspiration derived from imported maiolicas. The range of decoration conforms to typical schemes, such as 'bird on rock' patterns (Britton 1987, 109), geometric patterns (*ibid.*, 107) and fruit designs (*ibid.*, 85), none of which appear to be inspired by the bright patterns of Mediterranean maiolicas, nor by any other imports found.

Another possibility is that the imported pieces were in some way a 'side-line' for the potters. Perhaps, as well as producing pottery, they were also importers of exotic ceramics. Potters are thought to have sold to merchants (Britton 1990, 66), rather than directly to the public, and it is known that these merchants traded in both pottery and glassware. Perhaps the Platform Wharf factory carried a line in imported maiolicas as well as the more mundane locally produced wares, to make their products more attractive to these merchants. It is possible that this diversification was a response to a general decline in the economic viability of the factory which was brought about by its distance from its main market, and the relative closeness to the City of competitors. This is underlined by documentary evidence, which shows that the proprietor of the Platform Wharf factory, William Fry, transferred to Still Stairs, close to London Bridge, in c. 1663, where he appeared to enjoy a period of 'reasonably prosperous activity' (Britton 1987, 41). William Fry died in 1681/2; his partner at Still Stairs, Edward Osbaldston, remained in business and was a petitioner against imports of painted earthenware in 1685 (Edwards 1974, 90). If the imported wares were sold as a side-line by the Platform Wharf pottery, why was the stock of continental maiolicas and earthenwares disposed of in the moat with the production waste, when William Fry ceased production at this site prior to his new partnership at Still Stairs? Perhaps the assemblage is the result of a clearance of old, out-of-fashion stock, or perhaps even the result of a calamity in the stock-room.

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LEFT-LEANING HANDLES

Medieval jugs are often found with their handles displaced noticeably towards the left when viewed facing the handle (Col. Pl. 6a, 6b). This is usually not the result of absent-minded potting, but of structural forces that come into play during the vessel's manufacture. The consequences seem to have had some effect on the strategy of handle attachment on English medieval jugs.

When this handle displacement occurs it is almost always found on collared jugs and balusters. When a pot is collared on the wheel its diameter is reduced by applying inward pressure with the hands while increasing the peripheral speed of the clay. With most but not all clays this compression causes the overlapping clay platelets to become misaligned in bunches, creating spiral compression ridges or "collaring lines" twisting around the circumference of the collared parts, usually the neck or base (Col. Pl. 6c, 6d).

These collaring lines provide a reliable indicator of the direction of movement of the wheel in throwing. They are swept back at an acute angle away from the direction of wheel turn. On a counter-clockwise wheel the compression during throwing twists the collared lines clockwise and deforms the alignment of clay particles imparted by an initial cylindrical throwing. During the period of drying the clockwise movement of the clay resumes and continues when the pot is fired. This movement is a familiar problem for the maker of teapot spouts. Like the collared top of a vessel, the collared spout twists to the left. The clay appears to have a plastic memory of its deformation to which it inconveniently returns (see Cardew 1977, 122; Rado 1988, 88).

This phenomenon would be merely a curiosity but for the fact that the stresses involved can result in the handle cracking or breaking away from the pot. As the collared area at the neck twists in drying it can carry the attached

handle with it by as much as 20 degrees, although usually by much less, while the lower attachment at the uncollared belly remains stable. The handle may become detached at the top join, the point of greatest strain, and may crack on the lower one, usually on the right. Sometimes the top join will stay with the pot but pull the rim out-of-round. The simplest solution is to place the top handle join slightly to the right so it straightens out after twisting, although this assumes that the plasticity of the handle is maintained in drying and that the bonding attachments between handle and body will survive the movement.

The *luted handle attachment* is particularly sensitive to differences in the drying state of handle and body, and is at a disadvantage in providing handle junctions which can be relied upon to resist the stresses of drying and shrinking characteristic of natural clays. Luted top attachments are rarely found on heavily collared medieval vessels, probably because of their vulnerability to the movement involved.

To overcome these problems, the join is often made by disrupting the wall of the pot to secure the handle. This technique encompasses the large and varying class of *pegged handle attachments* (Pearce 1984 gives a well-illustrated account of pegged handle attachments on medieval pottery in the London area). One virtue of the pegged handle is its ability to provide a reliable join by reducing the danger of a collared twisting movement. The junction is stabilised by a mechanical structure, not unlike joinery, which also makes use of the bonding properties of clay. The peg, with its rivet-like action, maintains a firm contact between handle and body during drying. This allows a continuous exchange of moisture between them, which makes differences in the drying state of body and handle much less critical than they otherwise would be. The clay fillets on the upper and lower joins of a handle have a similar function. Although they add little to the intrinsic strength of a join, they are invaluable as a way of enlarging the area of contact between handle and body to facilitate moisture exchange during the drying period.

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FOUR ZOOMORPHIC ROOF FINIALS FROM WORCESTERSHIRE

Introduction

In March 1999, excavations at Worcester Road, Droitwich (NGR SO 901633; Bretherton *et al.* forthcoming) recovered four pieces of zoomorphic roof finial from the lower fill of a cesspit. Associated pottery and flat roof tile provided a secure *terminus post quem* of the late 13th to 14th century for the upper and lower fills of the pit and their contents. The site is located on parts of two medieval burgrave plots, which have changed little in layout since the medieval period. The finial is likely to have come from a dwelling in

close vicinity to these plots, but there was no firm evidence for such a building within the excavated area. The artefact assemblage and associated features indicated use of the site from the Roman period onwards. Prior to excavation, the land was being used as a small car park and is to be developed as sheltered accommodation in the near future. The discovery of these roof finial fragments prompted further investigation into comparable finds from the area and the status of the buildings commonly associated with this type of finial.

The occurrence of zoomorphic roof finials in Worcestershire and the surrounding region was extensively researched by the late Gerald Dunning during the 1960s. However, all reports relating to these finds were published in regional journals, which are not easily accessible to a wider audience. This class of finds has also been more widely considered by Moorhouse (1988) and Wood (1965). This paper is an attempt to improve the availability of information alongside more recent finds, concentrating particularly on those from within Worcestershire, but with the intention also of forming a more extensive survey of similar objects from the surrounding region.

The Droitwich finial

Of the four pieces of finial found in Droitwich, the two most substantial are in the form of a human and a horse's head made of Worcester-type fabric (Fig. 1, No. 1; Hurst and Rees 1992, 207). Both are crudely modelled with an uneven, reduced, green-coloured glaze, which has blistered in places and has a yellowish appearance where reduction is incomplete. The horse in particular has large areas of oxidation. Neither piece is particularly detailed or realistic in appearance, but both have a distinctive style. It is apparent that the two heads were originally part of a horse and rider finial as indicated not only by their appearance, but also, more significantly, by the presence of crudely modelled fingers holding onto the reins of the horse. Similar examples have been found on various sites, both in Britain and on the Continent (Dunning 1974).

The horse appears to have been made in several parts. Impressions on the inside of the neck show that it was wheel-thrown separately to the solid head. More complete examples of this finial type, such as that found in Bedford (*ibid.*), suggest that the body of the horse would also have been formed separately in the same way. Weakness caused by the joining of these parts may account for the head having become detached at the base of the neck in the Droitwich example. The extent of glaze around this break indicates that the join was just 2 mm thick in places, with the thick, applied reins positioned to mask any resulting scars.

A small area of glaze inside the neck appears to have run when applied, suggesting the presence of a hole somewhere on the body through which this could pass. Similar holes have been noted in other horse and rider finials, the best example being from Bedfordshire, with four holes measuring between 12.5 and 20 mm in diameter. It is assumed that these were cut to allow the escape of steam from the body during firing (Dunning 1974, 112).

The horse's head has applied ears and mane. The eyes are essentially 'pinches' of clay from the head itself, giving the impression of large eyebrows, with stamped, double concentric rings for detail. There is a deep groove at the end of the muzzle, presumably intended to represent a mouth. The mane is applied in two separate pieces above and below the reins and stands vertically away from the head and neck in the style of a 'hogged mane', rather than falling to one side. The applied reins are very thick and it is unclear whether they are intended to represent a bunch of