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### Research Articles and Updates

## Corporate or commercial? Considering modes of ceramic roof tile production in Chichester in the medieval and beyond

Hayley Nicholls<sup>1,\*</sup> with a contribution by Rae Regensberg<sup>1</sup>

Hayley Nicholls: Senior Archaeologist, Archaeology South-East (h.nicholls@ucl.ac.uk)

Rae Regensberg: Ceramic Building Material Specialist, Archaeology South-East (r.regensberg@ucl.ac.uk)  
c/o Andy Margetts: Post Excavation Manager, Archaeology South-East (a.margetts@ucl.ac.uk)

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\*Correspondence: [h.nicholls@ucl.ac.uk](mailto:h.nicholls@ucl.ac.uk)

<sup>1</sup>UCL Institute of Archaeology, UK

# Corporate or commercial? Considering modes of ceramic roof tile production in Chichester in the medieval and beyond

*Hayley Nicholls with a contribution by Rae Regensberg*

## Abstract

Medieval tileries, their mode of production and development are still very poorly understood. This research update combines historic and recent excavation data, along with documentary evidence to suggest that there may have been a rare example of a commercial tillery, operating independently of the church or crown in the Chichester region (UK), as early as the thirteenth century.

This kiln site produced utilitarian roof tile, potentially for distribution across the region, including to sites of low status. The industry appears to have moved out of the city of Chichester to the hinterland in the late medieval period.

**Keywords:** kiln, tile, CBM, medieval, post-medieval, Chichester, industry, commercial, enterprise, corporate

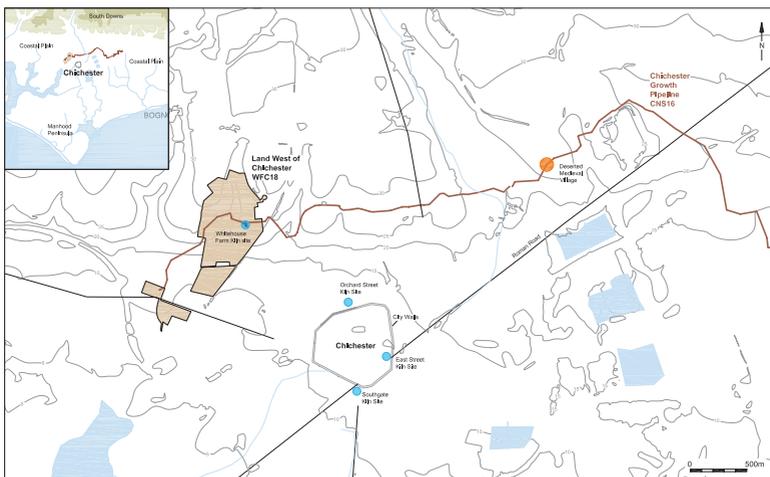
## Introduction

Much of the study of the medieval tile industry has focused on decorated floor tiles as they are broadly datable and can commonly be traced

to their production sites (Stopford 1992). Kilns for floor tile production of twelfth- to thirteenth-century date were commonly associated with ecclesiastical or manorial sites. From this it was concluded that early tileries may have been owned or supported by wealthy patrons or corporations, producing tile for a single large project. Commercial tileries, independent of a patron, were widely considered to have been established in the fourteenth century. That being said, there is evidence to suggest limited commercial tile production in the last quarter of the thirteenth century in the South Midlands and Essex (Blair and Ramsey 1991, 197). The critical dates for these changes lie between 1260 and 1325 when labour began to be paid in money rather than in service (Stopford 1992, 359).

Regarding ceramic roof tiles, there remains only very limited study of its modes of production, as roof tiles are harder to date or trace to their production sites. While thatch was one of the most widespread of roofing materials in the medieval period, there is evidence of the use of roof tiles from the twelfth century onwards, particularly in the south-east of England and on buildings of importance.

This article draws on data from two large excavations undertaken by Archaeology South-East in the last five years: one at Whitehouse



**Figure 1** Site location plan (Source: Archaeology South-East)

Farm to the northwest of Chichester, the other a pipeline scheme extending from east to west to the north of the city (CNS16). Multiple kiln sites in the city are also considered. These were excavated under rescue conditions in the 1960s and 1970s and published by Alec Down in his *Chichester Excavations* series (Figure 1).

## Chichester's previously known kiln sites

### Orchard Street

The Orchard Street kiln was situated on the northwest side of Chichester, just outside the city walls (Figure 1). A single elliptical up-draught kiln was recorded, considered to be of late-thirteenth-century date. This kiln produced a range of products including jugs, cooking pots, lids, pans, storage jars, chimney pots and roof tiles. The roof tiles were described as generally ranging from a sandy cream to red in colour, distinctive due to a heavy gritting with crushed flint. Some but not all were washed with a thin glaze (Down and Rule 1971, 153–7, 162–4).

The form of the kiln was very similar to one recorded in Ringmer, East Sussex, which also produced a similarly diverse range of wares (Gregory 2014, 36). Archaeomagnetic dating from this kiln yielded a date of 1200–70 (with 95 per cent confidence), potentially supporting a thirteenth-century date for the Orchard Street kiln. Furthermore, the diversity in the range of products from Orchard Street matched that from kilns at Binsted, considered to be in operation around 1300 (Platt 1978, 120).

Roof tiles in a fabric matching those at Orchard Street have been recorded at Tower Street in the northwest quadrant of the city, within pit contexts of possibly fourteenth-century date (Down 1978, 162, 361), and at Eastgate, where they were used to construct bread ovens of mid-thirteenth- to fourteenth-century date (Down 1978, 3). Furthermore, roof tiles of this fabric have been recorded 2.3 km away on a deserted medieval village (DMV) site in contexts of thirteenth- to fourteenth-century date (CNS16). Here they were identified in good numbers (2,106 fragments in total), predominantly from spreads of demolition material.

There is no evidence to suggest that either the crown or the church owned the land on which the Orchard Street site existed. It is more likely it was in private ownership. Down has noted a possible link to a *John de Oving* who was sold six houses very close to the kiln site in the latter half of the thirteenth century (Down and Rule 1971, 157).

## Southgate

Close to the city's southern gate, a large waster tip and three kilns were identified during the groundworks associated with building the Chichester Magistrates Court in 1974. One kiln of the circular up-draught type was excavated (Down 1978, 10).

Only a small amount of material was recovered. However, this provided sufficient evidence that multiple wares of a utilitarian nature were produced there, including jugs, pots, pans and roof tiles. The similarity in the range of products from Southgate and Orchard Street might suggest the two were roughly contemporary (Down 1978, 16). It is of note, however, that decorative ridge tiles in a style similar to those from Offington Hall, Worthing were also recovered from the site (Down 1974, 90–2).

To date, no definitive evidence of distribution of the Southgate tile has been identified. Furthermore, there is a lack of historic documentation for the site during the period in question, leaving its ownership uncertain.

## Eastgate

Traces of a flue in association with a number of pottery wasters were identified at Eastgate between 1974 and 1975. The feature was badly truncated by later pits, precluding its certain identification as a kiln. However, the presence of a kiln in the near vicinity was deemed likely, given the recovered waster assemblage (Down 1978, 1–6). While the assemblage was dominated by pottery, floor tiles and chimney vents were also recovered at the site.

Unlike the other two kiln sites, the historic documentation for Eastgate is rather compelling, indicating that the Blackfriars owned the site from the twelfth century. It was suggested that the hypothesised

kiln was probably operated by the Blackfriars for their own use, an interpretation which remains plausible.

## Other kilns

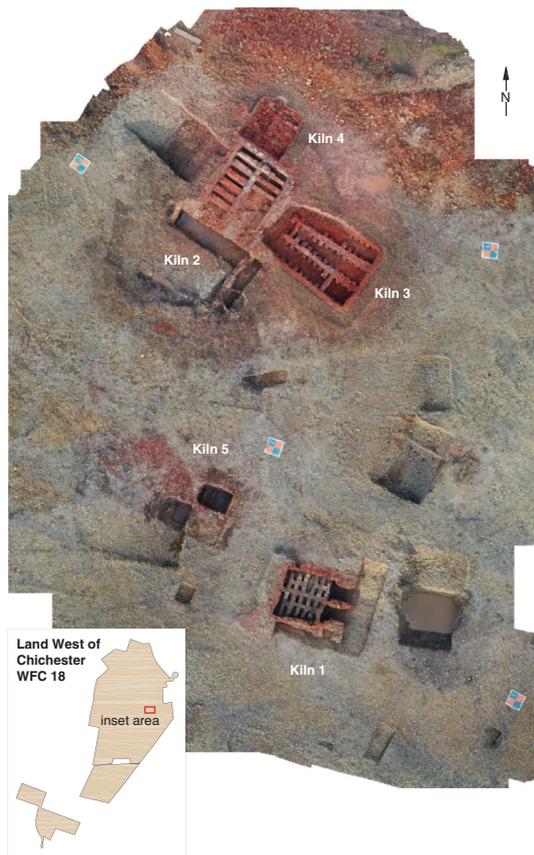
Two other medieval kiln sites are known within Chichester. A possible tile or clamp kiln of possibly twelfth- to fourteenth-century date was noted at 44–45 West Street (Down 1981, 18; Down 1989, 16) and a second site is recorded near Southgate (Down 1981, 18). However, only the briefest of references is made to both sites, with no mention of the products from Southgate at all.

## Whitehouse Farm

Five, possibly six, kilns and a limited number of associated features were recorded on the site (Table 1; Figure 2). The material recovered from the kilns was considerably less diverse than that from Orchard Street, their main product probably being roof tile, the wasters of which were used to build the kilns themselves. Evidence also indicates pottery production and lime burning on site, but on a much smaller scale and most likely for a far shorter duration. None of the recovered tiles suggest use

**Table 1** The Whitehouse Farm kilns, their possible date ranges and dimensions (Source: authors)

| Kiln | Possible date                      | Dimensions (external) | Dimensions (internal) | Furnace chambers |
|------|------------------------------------|-----------------------|-----------------------|------------------|
| 1    | Fourteenth century?                | 3 m × 3.34 m          | 2.02 m × 2.1 m        | Double           |
| 3    | Fifteenth–sixteenth century        | +4.2 m × 3.4 m        | +3.95 m × 2.7 m       | Triple           |
| 5    | Fifteenth–sixteenth century?       | 2.4 m × 2.3 m         | 2.25 m × 1.96 m       | Double           |
| 4    | Sixteenth–seventeenth century?     | +2.2 m × 2.4 m        | +2.09 m × 2.15 m      | Double           |
| 6?   | Sixteenth–seventeenth century?     | 2.8 m (diameter)?     |                       | Unknown          |
| 2    | Mid-seventeenth–eighteenth century | 3.9 m × 3.05 m        | 3.64 m × 2.57 m       | Double           |



**Figure 2** Aerial photo of Whitehouse Farm kilns taken during Archaeology South-East's excavations in 2019 (Source: Archaeology South-East)

in high-status buildings. Assessment of the material used to construct each kiln has provided an approximate chronology of their use.

Two samples of wood charcoal have been radiocarbon dated as part of the initial assessment of this site. Both samples derived from a layer of charcoal directly overlying the floor of Kiln 3, presumed to be associated with its final use. Both samples returned calibrated split date ranges. The first, at 95 per cent probability, 1416–1490 cal CE (94.0 per cent), 1602–1610 cal CE (1.4 per cent). The second, at 95 per cent

probability, 1426–1516 cal CE (87.8 per cent), 1597–1618 cal CE (7.6 per cent).

An assemblage of thirteenth-century roof tile was recovered from this site (T6), predominantly used in the construction of Kiln 1 alongside later medieval material. It matched the description of the Orchard Street tile. While it is possible that fabric T6, of which there were 83 fragments, was produced on site – given the limited size of the assemblage, the lack of a contemporary kiln or further definitively thirteenth-century material – it seems more likely that the tile was produced elsewhere. Orchard Street is considered the most probable production site.

The limited immediately available documentation indicates that this area to the north of Chichester was gifted to the Bishop of Chichester in 1229. It was subsequently divided up and rented out as separate farms.

## **The ceramic building material by Rae Regensberg**

Although a large range of tile fabrics was recovered from the Whitehouse Farm site, arguably the most interesting was a fabric with an orange matrix primarily characterised by common to abundant quantities of coarse flint temper. Several sites have been found with this flint-tempered tile, the most securely dated and largest assemblages being from CNS16. The flint-tempered roof tile at this site was excavated from contexts almost exclusively associated with pot dating from the thirteenth to fourteenth centuries. A site in Southampton had matching peg tile in a context containing only mid-thirteenth to mid-fourteenth century Southampton Sandy ware pottery (Clelland 2006, 157).

The tile fabrics produced in the later Whitehouse Farm kilns are not as easy to trace as the flint-tempered fabric. Further research into the distribution of the flint-tempered tile is under way, although undecorated ceramic building material (CBM) is not always recorded in great detail, making this a difficult enterprise. As a more mundane item than decorated floor tile, roof tile should provide a more comprehensive picture of the burgeoning independent CBM industry of the thirteenth and fourteenth centuries.

## Discussion

At least five medieval kiln sites have been identified in Chichester or its immediate environs. Three of them were almost certainly producing roof tile, while a further one produced roof furniture. Given the ubiquitous presence and wealth of the medieval church in Chichester, it is perhaps not surprising that there is evidence of early roof tile production in the city. What makes this noteworthy is the possibility that at least one of these workshops may have been operating independently of a corporation as early as the thirteenth century.

Granted, the documentary evidence suggesting independence of the Orchard Street workshop from the church is not entirely robust. However, when combined with the utilitarian nature of the assemblage recovered and its distribution to low-status sites, it seems reasonable to propose it as a rare example of an early independent commercial enterprise. Certainly it does not appear to have been producing tile for a single large project. This would add West Sussex to the shortlist of areas in which tile was produced by independent commercial workshops in the thirteenth century.

To date, no definitive evidence of distribution of the Southgate tile across the region exists. Furthermore, the lack of historic documentation for the site during the period in question leaves its ownership uncertain. While it is possible that Southgate was an independent workshop, the production of decorative, high-status ridge tiles at this site makes an interpretation as a corporate workshop attached to a wealthy patron perhaps more likely. Similarly, the postulated Eastgate kiln was most likely attached to the church, suggesting that the Chichester tileries were operating with both corporate and commercial modes of production as early as the thirteenth century.

Numerous possibilities exist for what may have driven early demand for roof tile and given rise to regional variation in the speed of its adoption. Legislation by towns and cities favouring roof tile in order to reduce the risk of fire has been suggested as a possible impetus. Such legislation was passed in London in 1212, but similar moves are not known in places such as Colchester and Worcester until the fifteenth century (Salzman 1923, 174–5).

Distance from the sea, restricting access to stone as a roofing material, has also been suggested as a possible factor. Roof tile manufacture in the thirteenth century in Wessex and Wiltshire is considered to have been a prime example of this (Hare 1991, 88). A lack of stone in the Chichester region is unlikely, given its proximity to the sea and to the Quarr quarries (Platt 1978, 10). Similarly the presence of roof tile on the DMV site suggests at least some demand for the product outside the city limits, on a site unaffected by city legislation, indicating an alternative driver for early demand in and around Chichester.

Wealth from overseas trade enabled merchants in the nearby port of Southampton to build houses from stone, with roofs of tile and slate, from the late twelfth century onwards. This trend was also seen in other prosperous towns of the period (Platt 1978, 133). This indicates a market for roof tiles in the region, independent of the church or manorial estates, perhaps driving early commercial production of roof tile in the Chichester region. It can be suggested only tentatively that the peg tile identified in Southampton was produced at the Orchard Street workshop. Should this be the case, it seems plausible that the wealth of the nearby port partly led to the establishment of a regional production site in Chichester. The presence of the tile on the DMV, most probably a site of low status and wealth, is curious and requires further consideration.

The degree of connection between the Whitehouse Farm site and the church remains uncertain. The reduction in the range of products from the Whitehouse kiln compared to those within Chichester is notable, however, almost certainly illustrating the growing demand for roof tile in the fifteenth century and beyond and the diminishing need to diversify. To date, no late medieval tile kilns contemporary with those at Whitehouse Farm have been identified within the city, potentially indicating that production moved out to the hinterland. If this were the case it was to be only temporary, as post-medieval brick and tile kilns are recorded within the city at North Street and City Club, North Pallant (Down 1989, 13, 19).

## Conclusion

Considering the currently available evidence, it seems reasonable to suggest there may have been at least three kiln sites operating in

Chichester in the thirteenth century, producing a diverse range of products, including utilitarian roof tiles and roof furniture. While two probably operated as what Stopford would consider corporate entities, primarily producing products for a single patron or client, one may have been operating as an independent commercial workshop. This would constitute a rare example in thirteenth-century England, and currently the first known example in the Chichester region.

Ongoing research aims at establishing a tighter chronology for the Whitehouse Farm kilns, identifying their association, if any, with the church and attempting to assess their scale of production and breadth of distribution.

## Conflict of interests

The author declares no conflicts of interest with this work.

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