

EVIDENCE FOR 18TH CENTURY BRICK MAKING AT DOGMERSFIELD PARK, ODIHAM, HAMPSHIRE

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ABSTRACT

The proposed redevelopment of the House and the surrounding grounds within Dogmersfield Park, Odiham, provided an opportunity to investigate the formal gardens and structures associated with the house, which led to the chance discovery of two early 18th-century brick built kilns that could possibly be associated with a rebuild of the house.

INTRODUCTION

Archaeological investigations took place at various stages between 1998 and 2004 in advance of redevelopment of the House and the surrounding grounds within Dogmersfield Park, Odiham (Wessex Archaeology 2004). The below-ground archaeology provides the major, and in the case of the formal gardens, the only, evidence for the layout and development of the house and its grounds.

Dogmersfield Park lies near Odiham, in north-east Hampshire (Fig. 1) and occupies the former site of a medieval manor (Ormerefelt-Domesday 1086). The estate passed to the Crown at the Dissolution and was granted to the Earls of Southampton (1547–1629). After a number of owners, possession passed to the St John (St John-Mildmays) family in 1703 until 1933 when the house was sold off (estate sold in 1919). Little is known about the Elizabethan or earlier structures (Britton and Bradley 1805, 278). In 1728 a new house was constructed (extended in 1744). The Tithe map of 1837 and the 1910 Ordnance Survey map show that the house was substantially altered and extended in the 19th century.

BRICK KILNS

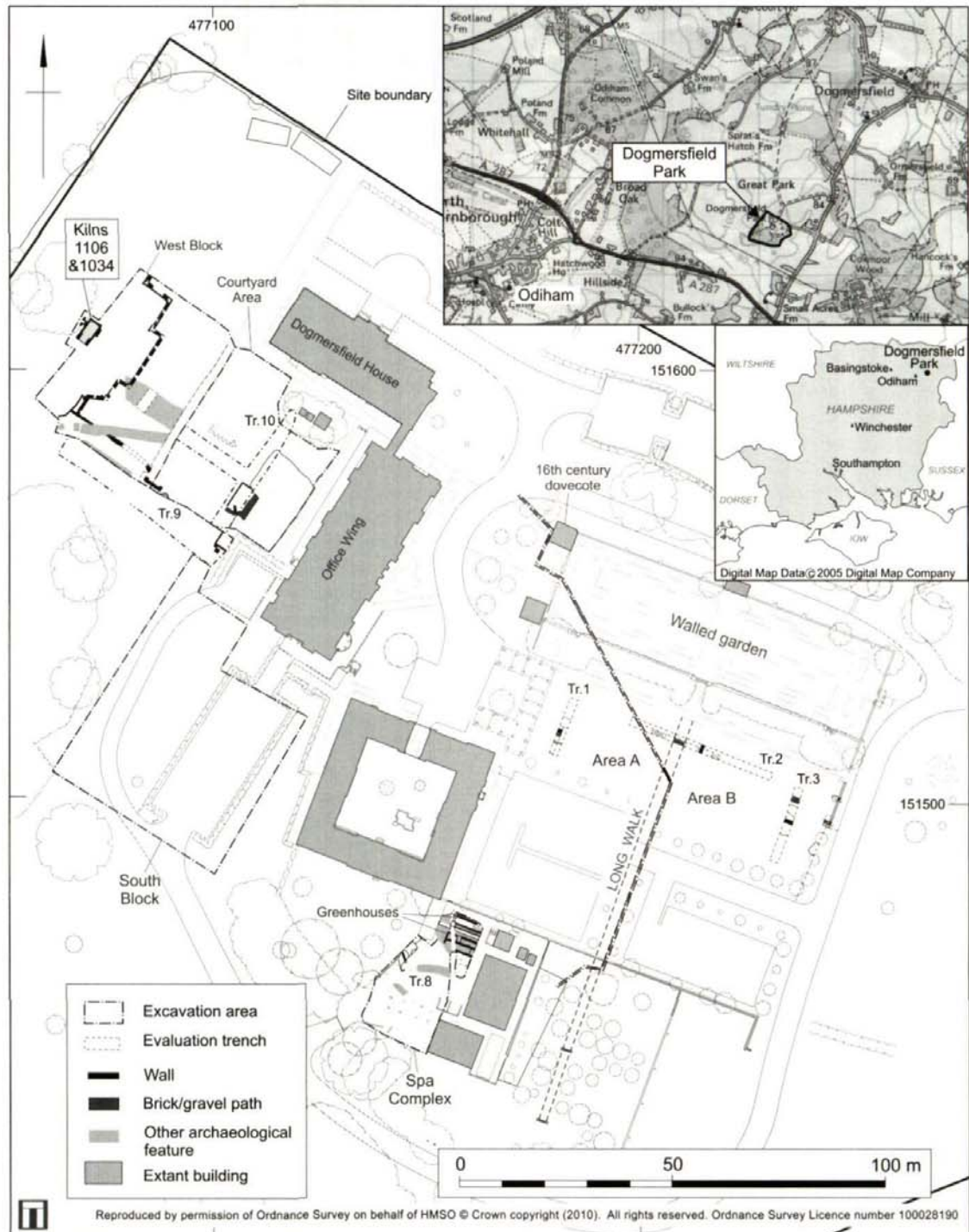
The remains of two rectangular brick-built updraught kilns (1106 and 1034) were uncovered (Fig. 1). Their plans were superimposed and set perpendicular with the later kiln truncating the earlier structure.

The earlier kiln (Fig. 2), 1106, had a single flue and stoke pit of uncertain size. The kiln structure was sunk below ground within a rectangular pit. A pair of L-shaped brick walls, in English bond, led from the stokepit to an arch. Two parallel brick shelves ran the length of the kiln and were formed of bricks laid on edge with lime mortar with signs of repair. The floor was of bedded bricks.

Layers of charcoal, partially separated by clay with brick fragments, were found at the stoke pit end and over the kiln floor were the remains of the final firings.

It is probable that little time elapsed between the final firing of the earlier kiln and the construction of the later one, in which case both kilns could have been of late 17th or early 18th century date (*see* Archaeomagnetic dating, below). However, this suggestion is contradicted by the late 15th or 16th century date of the bricks used in the earlier kiln (1106) (below) construction, which would indicate a broader span of time, perhaps a century, had elapsed between construction and use of the two structures.

Kiln 1034 (Fig. 3) had twin flues and a large stoke pit and a bedded brick floor. The south-east shelf had been repaired, and the central wall and the shelves would have supported the firing floor. Damage and vitrification of the upper surfaces and central wall suggest



that they had survived to their original height. Highly vitrified masses of mortar and brick were found at the kiln floor end of both flues. The highly vitrified springs of two arches survived at the stoke pit end.

A layer of ash, presumably from one of the last firings, survived in the base of the kiln.

The stoke pit with a rammed chalk floor extended for an estimated 10 m. Two irregular lines of waster or spare bricks, some partially vitrified, and flints were recorded against the lower parts of the sides of the stoke pit. These may represent the final traces of a dismantled lean-to structure built to protect and shelter the fire.

During the use-life of the kiln, some additional bricks were laid on top of the chalk floor surface in the stoke pit, perhaps as a measure to strengthen and protect the heat-damaged brickwork at this end of the structure from the intense effects of further firings. After this repair, a second sequence of chalk floor, trample and charcoal was evident in the stoke pit.

After abandonment the kiln collapsed and was mostly covered by a 0.23 m thick dump of 18th century broken bottle glass following the probable clearing out of a cellar sometime after 1740 (Lorraine Mephram pers comm).

Archaeomagnetic dating of kiln 1034 by Paul Linford

Archaeomagnetic analysis of brick samples taken from the kiln wall has established that it was probably last used between AD1690 and 1720 (95% confidence) (Casas *et al.* 2007; Linford 2003), which accords well with the historical evidence (*see* Discussion, below).

Bricks used to construct the kilns by Lorraine Mephram

Brick samples were taken from both kiln structures; two types (1–2) were used. Type 1, a relatively thin brick in a coarse fabric, notice-

ably more crudely moulded and fairly heavily abraded than type 2, has the appearance and dimensions of Tudor bricks (late 15th or 16th century) (found in the wall and floor of kiln 1106, re-used in the brick rubble fill of the south-east wall of kiln 1034 and as re-deposited material in both kilns). Type 2, a relatively thick brick, more regularly moulded, with sharper arrises, and made in a well fired, dense clay, is a fairly standard brick type of the 18th or early 19th century. Examples were found in the floor of kiln 1106.

Analysis of the charcoal fuel (stoke pit of kiln 1034) by Rowena Gale

The charcoal consisted almost exclusively of narrow roundwood from a range of species, although hazel (*Corylus avellana*) and the hawthorn/*Sorbus* group (Pomoideae) appeared to be most frequent. Other species included blackthorn (*Prunus spinosa*), maple (*Acer campestre*), ash (*Fraxinus excelsior*), and probably dogwood (*Cornus* sp.) and briar (*Rosa* sp.) or bramble (*Rubus* sp.). In addition, fragments from largewood or wider roundwood were recorded for oak (*Quercus* sp.) (heartwood) and ash (*Fraxinus excelsior*), the latter from fast-grown wood.

The fuel clearly consisted of a mixture of very narrow roundwood (<15 mm in dia.) and wider roundwood/cordwood. The wide early growth rings observed in some hazel fragments indicates coppiced woodland. The hazel stems examined appeared to have been felled at 10 years old or earlier. Not all species, however, produce such markedly wide growth rings when regenerating from coppice stools (Morgan 1982), and it is often difficult to establish such origins from the wood structure. The use of cut roundwood (hawthorn/*Sorbus*) was indicated by an obliquely slashed tool-mark. The inclusion of briar or bramble was probably coincidental – although it could have been used as binding for bundles of faggots or similar materials (as in traditional usage recorded by Edlin 1949).

Fig. 1 Location of Dogmersfield Park and detail of the house, grounds and the areas of archaeological investigation

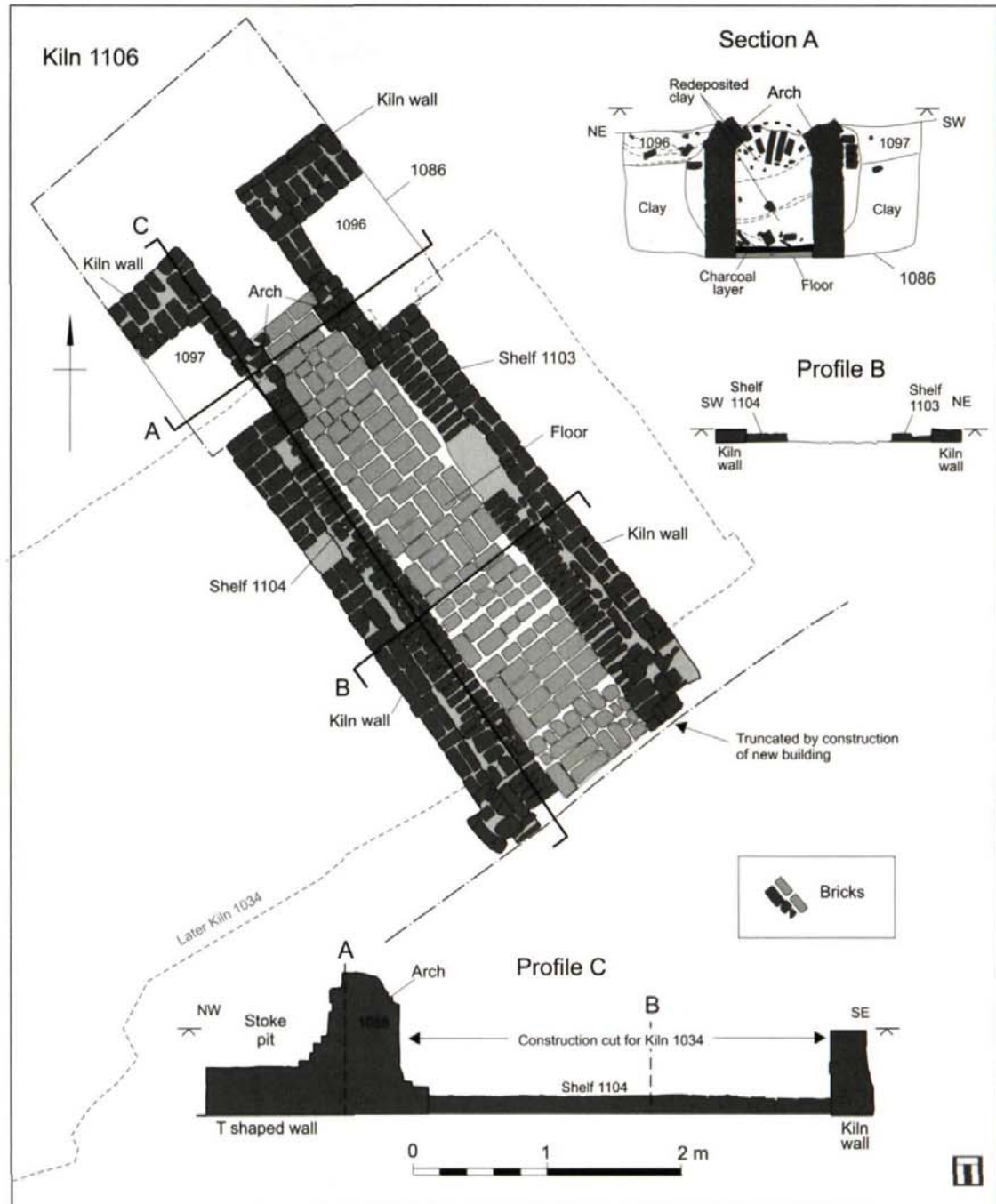


Fig. 2 Detail of brick kiln 1106

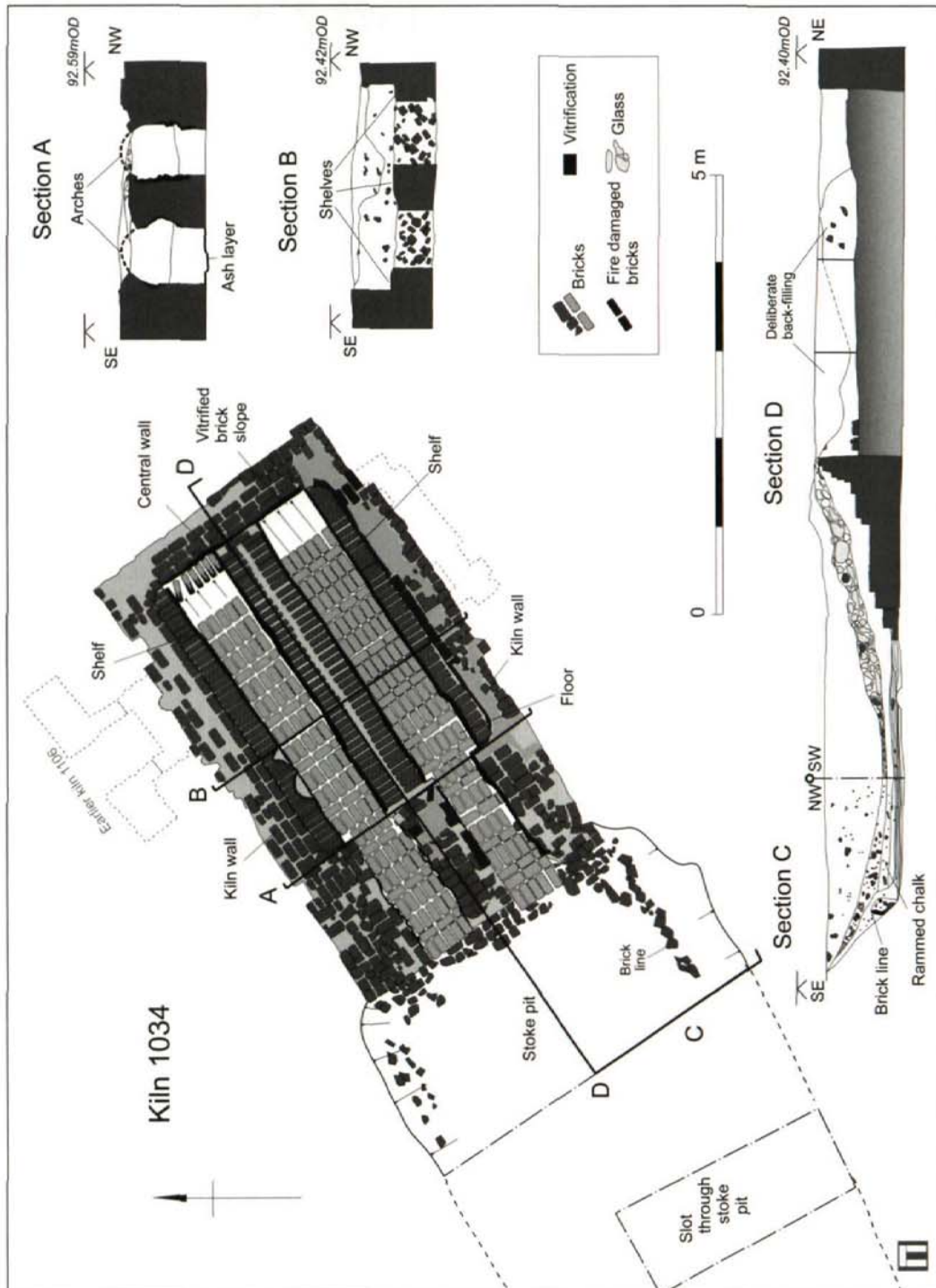


Fig. 3 Detail of brick kiln 1034

Alternatively, the briar or bramble stem could suggest the use of hedge trimmings or scrub.

The high ratio of air to surface area on the narrow stems would quickly produce an intense heat source (Hodges 1964), a property which has long been exploited by potters and other artisans as a means of attaining a quick boost to the temperature of the kiln (Ian Freeman, pers. comm.). Although speculative, it is feasible that the narrow roundwood from the brick kiln was specifically used for this purpose. The use of oak and ash largewood would have extended the life of the fire.

Evidence from the charcoal analysis indicated that local woodland species included hazel, hawthorn, blackthorn, maple, ash, oak and probably dogwood were used as fuel.

DISCUSSION

The discovery of the two updraught kilns represents a relatively rare survival in Hampshire, as surviving kilns are mostly 19th-century and often from brickyards (Moore 1988). Property owners who required bricks for altering and/or extending buildings had the choice of purchasing from a brickyard or employing a local brickmaker. There is reference to the lease of a message to a bricklayer by John Goodyer of Dogmersfield from 1698 to 1719, indicating probable building activity at Dogmersfield Park in the late 17th century up to c. 1725. Therefore the kilns were possibly used to supply bricks for the alteration or extension of the house and/or

to the garden walls and not to the 1728 rebuild (red brick mansion). Another well-preserved kiln of similar date was discovered at Raghill Farm, Berkshire some 15 km away (Wessex Archaeology 2005).

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The project archive, which includes a full written account of all aspects of archaeological work, will be deposited with the Hampshire Museum Service (WA project codes 44871–6).

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