

◆ The Excavation of Prehistoric Remains, a Roman Road and Post-medieval Kiln at Stane Street, Westhampnett, West Sussex

By Greg Priestley-Bell

with contributions from

Luke Barber

Chris Butler

Gwen Jones

Malcolm Lyne

Mike Seager Thomas

John Whittaker

Evaluation and excavation on the line of Stane Street at Westhampnett, near Chichester, West Sussex revealed significant remains relating to the Roman road, including part of the agger, a flanking ditch, both zonal ditches and the rutted surface of a metalled 'carriageway'. Roman Stane Street at this location was c. 25 m wide in total, with c. 7 m between zonal ditch and flanking ditch (all measurements taken from the centres of the ditches). While the flanking ditch produced mid first-century AD pottery, a small quantity of Early Saxon pottery, together with fourth-century Roman pottery, was recovered from the surface of the rutted southern 'carriageway'. A brick kiln of probable mid sixteenth- to seventeenth-century date was revealed during the evaluation and preserved in situ. A small number of prehistoric features were also identified, including four possible Bronze Age pits, a Middle Iron Age ditch and a Late Iron Age/Early Roman pit.

INTRODUCTION

In April 2004, Archaeology South-East (a division of University College London Centre for Applied Archaeology) were commissioned by Jacobs UK Ltd (formerly Babtie Group Ltd), on behalf of their clients Viridor Waste Management, to undertake an archaeological evaluation on land beside Stane Street, Westhampnett, West Sussex (Fig. 1; NGR SU 880 060).

The site lies c. 2.3 km northeast of Chichester city centre on the western edge of Westhampnett village. The archaeological work was undertaken in response to a condition attached to planning consent for the upgrading of the existing Civic Amenity site (planning ref: WH/02229/04). The proposed works would comprise the construction of a new access road linking into Stane Street to the north. As the new road would undoubtedly cross the line of Roman Stane Street, the development would offer a rare opportunity for a detailed examination of a section of the Roman road.

A preliminary geophysical survey of the site identified two anomalies that were interpreted as possible kilns, together with two diffuse linear responses that were perhaps associated with the Roman road (Babtie 2004, 2). Three trial trenches were mechanically excavated and targeted on

both the geophysical anomalies and the projected alignment of Roman Stane Street (Fig. 2).

In evaluation trenches 1 and 2 part of the degraded *agger* of Roman Stane Street was identified, together with the northern flanking ditch. In trench 3, a continuation of the flanking ditch and a possible zonal ditch were seen but no trace of the *agger* was found (Fig. 2). Roman roads were usually, although not always, built on an *agger* or embankment, sometimes with a stone base and a metalled, cambered surface. Flanking ditches are usually found either side of the *agger* where they would have carried away the run-off from the cambered surface (Margary 1965, 18). Where present, zonal ditches marked the outer edges of the cleared road corridor or easement (Hugh Davies, pers. comm.), resulting in a total width of perhaps three times that of the *agger*. Other features recorded during the evaluation included a possible cess/rubbish pit, perhaps associated with Romano-British settlement beside the road, and an elliptical brick-built kiln provisionally dated to the sixteenth–seventeenth century (Fig. 2).

In view of the significant results, an area excavation was undertaken within the footprint of the proposed new access road in two phases between December 2004 and January 2005. The development plan was amended to allow the

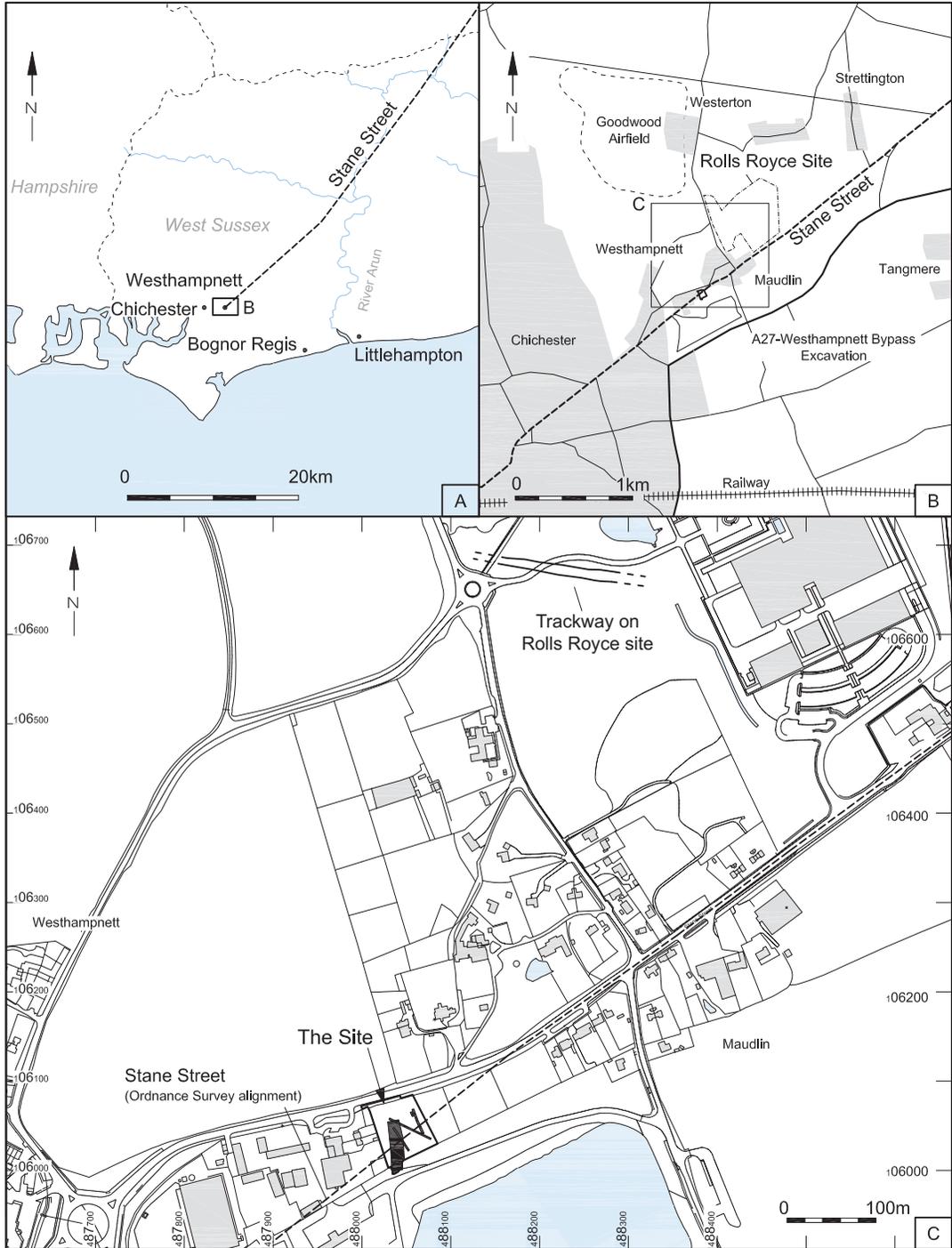


Fig. 1. Site location plan.

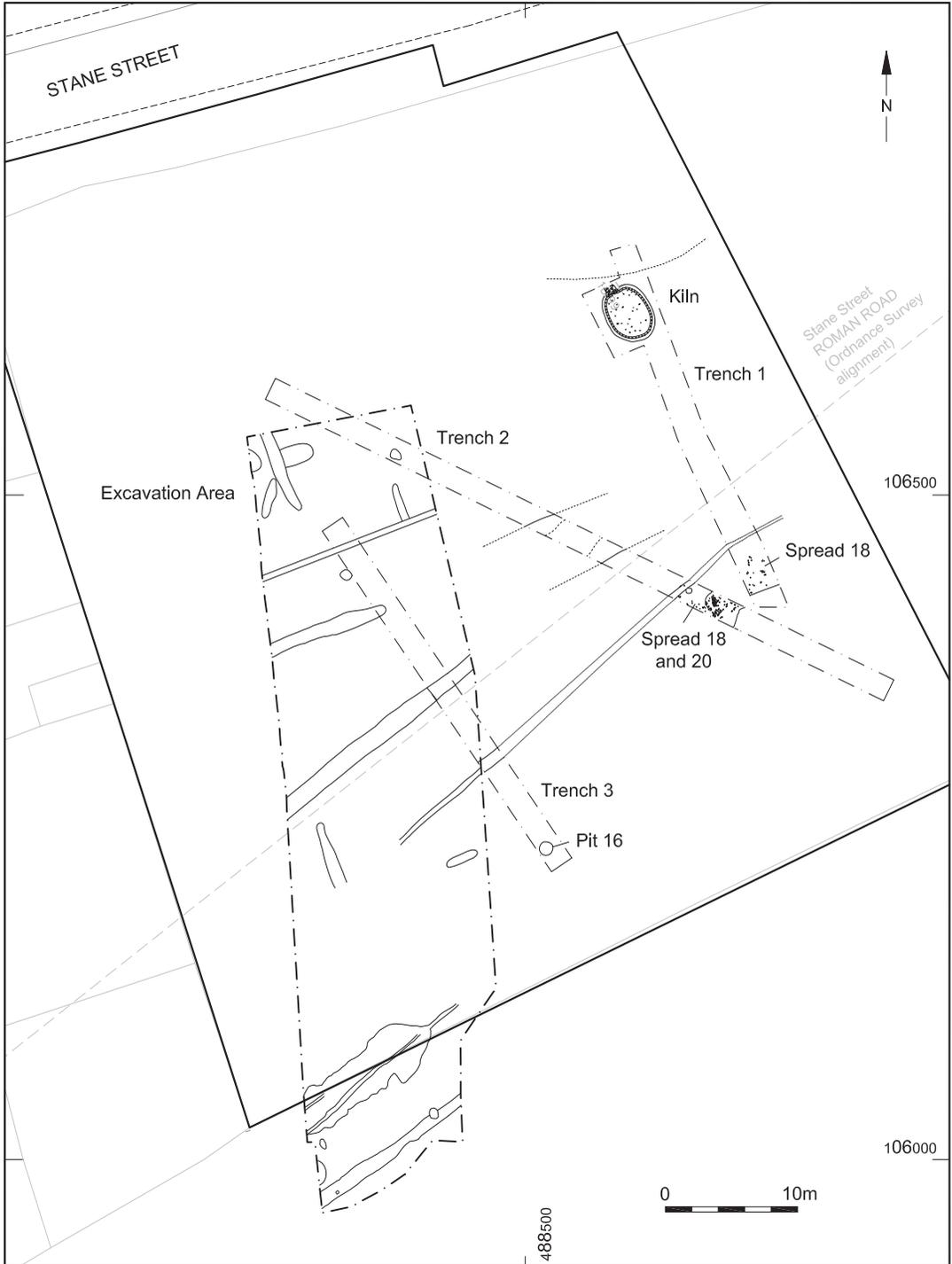


Fig. 2. Plan of evaluation trenches and excavation area.

preservation *in situ* of the section of the *agger* identified in trenches 1 and 2.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The West Sussex Coastal Plain is recognized as an area of high archaeological potential for a broad range of periods. Middle and Lower Palaeolithic sites associated with a series of raised beaches have produced evidence of human occupation dating back almost half a million years. The most important of these is the hominid site of Boxgrove, situated a few miles to the east of the current site, at the former Eartham Quarry on the southern margin of the South Downs (Roberts & Parfitt 1999).

Although the great majority of Mesolithic sites in Sussex are to be found on the Lower Greensand and the Downs, a growing number are being discovered on the Coastal Plain in the Chichester area. The most important of these was identified during excavations in advance of the construction of the A27 Westhampnett bypass (Fig. 1B), within 2 km of the current site, where investigations recorded over 10,000 flints, including a large number of microliths (Fitzpatrick *et al.* 2008). In addition to Mesolithic remains, a remarkable tract of funerary landscape was recorded, containing remains from the prehistoric to Anglo-Saxon period, including a Bronze Age barrow and cremation cemetery, a Late Iron Age religious site with 161 cremation burials and several shrines, Romano-British and Anglo-Saxon cemeteries (Fitzpatrick 1997, 242–86, 287–94). Further remains identified on the site included Neolithic pits, a Romano-British enclosure and field system, and two Early Saxon Sunken Featured Buildings (Fitzpatrick *et al.* 2008; Fitzpatrick 1997, 242–3).

Similarly, more recent excavations at the Rolls Royce site (Fig. 1C), Claypit Lane, Westhampnett, c. 500 m to the northeast of the present site, identified significant remains including Neolithic pits, Bronze Age burials and settlement, and two further Saxon Sunken Featured Buildings (Chadwick 2006, 7).

Further Roman settlement is suggested by the large number of Roman tiles recorded within the fabric of St Peter's Church, Westhampnett which lies c. 100 m to the northeast of the current site on the north side of the modern road. The material includes half-box tiles which are thought to pre-date

AD 75–80 (Black 1987, 12), leading to the suggestion that an early villa lies nearby, perhaps dating to the reign of Togidubnus (Rudling 2003, 113).

The first reference to Westhampnett dates to 1086 in Domesday as *Hentone*, which in 1187 became *Hamptoneta*. Glover suggests that St Peter's Church, Westhampnett may have been founded as early as the beginning of the eighth century, perhaps replacing an earlier one (1997, 216).

STANE STREET

Current evidence suggests that Roman Stane Street was largely established in the first century AD, with a pre-AD 70 date supported by the identification of the alignment of Stane Street as pre-dating the layout of Roman Chichester (Magilton 1996a, 31–4). Although earlier suggestions placed the construction as early as the first decade after the AD 43 invasion (Margary 1965, 46; Winbolt 1936, 3), it is probable, based on current evidence, that the road was established soon after the likely foundation of Roman London in c. AD 50 (Luke & Wells 2000, 94; Bird 2004, 65). Bird suggests that a c. AD 50 date 'offers some support to the theory that Roman forces in AD 43 landed in the Solent area rather than in Kent, and established an early base at Silchester before heading along the river corridor to complete the first campaign' (2000, 91–104; *see also* Frere & Fulford 2001, 45–55; Bird 2002, 91–104; Sauer 2002, 333–63). Therefore, although Stane Street was initially built as a military communications and administrative route, it probably played no part in the immediate post-conquest campaigns. In its absence, a road from Chichester via Iping and Staines might have provided a route from the Solent to the northeast (Bird 1999, 331–4).

The earliest section of Stane Street was perhaps a direct route from a harbour on Fishbourne Creek, possibly at Copperas Point, to a crossing of the river Arun at Pulborough (Magilton 1996a, 31–4). Copperas Point is also the apparent destination of a straight road alignment, the southern section of which is Bracklesham Lane which extends from East Wittering to Birdham. Magilton suggests that the southern destination of the road may have been a now disappeared deep-water harbour for vessels too deep-draughted to use the postulated Copperas harbour. Magilton further suggests that, based on Dressel 1A and 1B amphorae finds from the Hardham/Pulborough area, a road from Chichester Harbour to Pulborough may already have been an

established trade route in the Late Iron Age. If this were the case, it would support the contention that the southern alignment of Stane Street predated the layout of Roman Chichester (Magilton 1996a).

Messengers would have travelled by horseback between posting stations (*mansiones*) located every 15 miles or so (Davies 2002b, 9–12). Two such posting stations have been identified along the West Sussex section of Stane Street at Hardham and Alfoldean (Margary 1965, 46).

Although the construction design of the southern section of Stane Street is very variable, many sections conform to what might be described as the typical form for a major road. This comprised an embankment (*agger*) 7–10 m wide, flanked by ditches to provide drainage. The *agger* was cambered and metalled with a variety of local materials to a depth of 150–300mm. Sometimes zonal ditches were present, creating two usually flat lanes, one either side of the *agger*. The nearest fully recorded section through Stane Street lay c. 700 m to the southwest of the current site. This was recorded by Lowther, who identified a slightly raised *agger* between outer lanes and zonal ditches (1941, 110–14). Winbolt described another section very close to Lowther's (1936, 12–14). These sections are discussed below.

The road was probably originally designed to carry only horse and foot traffic (Davies 2002b, 9–12). Speed of construction of the earliest roads would have been of paramount strategic and probably tactical importance. A study carried out by Major D. A. S. Davies of the Royal School of Military Engineering at Chatham concluded that an estimated 1000 men could have completed a lightly constructed first rendition of Richborough (*Rutupiae*) to London Watling Street in 15 weeks, while a fully engineered road of the same length might have taken 3400 men three years to complete (Peddie 2005, 188).

During the immediate post-invasion period the road would have seen intensive use by fast-moving, light military traffic. However, once stability had been achieved and the route corridor secured, it is likely that the road would have been used by heavier wheeled traffic to which it was generally unsuited. Given the harness limitations of the time, the relatively steep gradients were likely to have been unsuitable for horse-drawn wheeled traffic, and would have been onerous even for yoked oxen. The yoke harness, although well suited to oxen,

tended to restrict breathing and blood-flow when used with horses (White 1966, 59–60).

Some wheeled traffic did manage to negotiate these gradients, as evidenced by wheel ruts identified on a recently examined section of the road on The Gumber (Kenny 2005, 18–21). It is likely, however, that local diversions avoiding the steepest gradients would have soon become established. A nearby example is at Halnaker Hill, where the modern road loops southwards from the line of Roman Stane Street, roughly following the 65 m contour for c. 1.5 km before swinging northwards again and rejoining the Roman alignment. It is interesting to note that the diversion at Westhampnett (see Documentary section below) is one of the very few not to have been apparently brought about by difficult gradients. The steepness of some gradients was probably one of the main reasons the road fell out of favour as a long-distance route in the post-Roman period.

There is some evidence that a decline in the status of the road could have begun as early as the second century AD when the posting station at Hardham went out of use (Winbolt 1936, 70; Boyd-Dawkins 1864, 52–64). Although a small quantity of late third-/fourth-century finds were recovered during the recent excavation of the Alfoldean posting station, most of the stratified later material came from the settlement to the south of the *mansio* complex; the only fourth-century material recovered was from two structures 60 m to the south of the *mansio* (Wessex Archaeology 2006, 87). The excavator concluded that the focus of activity on the site appeared to be between the late first century AD and early third century AD (Wessex Archaeology 2006, 29).

Although the settlement to the south continued at least into the early fourth century, the date of the end of the *mansio* was unclear (Luke & Wells 2000, 99). It has been suggested that Alfoldean became an important local centre that served as a market for a range of goods including pottery from the Arun valley and tile from Itchingfield (Cooper 1984, 82). If this were the case, short sections of Stane Street are likely to have remained in use as local trade routes after the road's decline as a long-distance route.

The absence of Stane Street from the early third-century Antonine Itinerary is perhaps also suggestive of the road's loss of status. Itineraries would have been one of the principal means by

which the imperial post system was administered, and would also have been used to calculate agricultural levies. The Itinerary was a formal description of the road network which listed the major routes with settlements and distances in between, and was used in the calculation of rates of taxation. The Itinerary listed 15 routes in Britain and, interestingly, it seems that by the time of its compilation the preferred Chichester to London route was via Bitterne (*Clausentum*) and Winchester. In contrast to Stane Street, there is no evidence to suggest that any part of the Chichester-Bitterne road went out of use during the Roman period, and indeed it is likely that it continued in use into the Saxon period and beyond (Soffe & Johnston 1974, 117–18). Although no precise dating evidence was recovered, the longevity of the road at Meon Pool has been clearly demonstrated. Close to the crossing of the River Meon, seven successive repairs to the road surface have been identified, each represented by *c.* 200 mm of flint metalling separated by an accumulation of silt (Winchester Museum Service 1998, 75).

Recent excavations at Milland on the site of the posting station on the Chichester-Silchester Roman road have produced evidence that the posting station was not constructed until the late second century AD (James 2006, 7). Given the second-century date for the disuse of the station at Hardham on Stane Street, it is possible that during this period the chosen Chichester–London route for the post system changed from one via Pulborough to a route via Winchester. A significant causal factor may have been the difficult gradients encountered by Stane Street in the Weald, together with the surface waterlogging associated with the *stagnoley* soils (McRae & Burnham 1975). The construction and maintenance costs necessitated by such challenging conditions may have severely compromised Stane Street's transition from a route originally designed for horse and foot traffic to one suitable for wheeled traffic.

However, the Antonine Itinerary dealt primarily with public highways (*viae publicae*) and not the strictly military roads (*viae militares*) (Chevalier 1976, 65). Apart from minor roads, Roman roads were classified into two main types, *viae publicae* and *viae militares*, but it is difficult to know which definition applied to which road at any one time. If Stane Street were still primarily regarded as a strategic road in the early third century, it would

not necessarily have been included in the Itinerary.

The history of Stane Street is one of evolution for, as its military and administrative use perhaps declined, it gained at least limited importance as a trade route. By the end of the second century Stane Street had already become a distribution route for two distinctive types of pottery from the kilns at Rowlands Castle, a trade that probably lasted into the early fourth century (Cunliffe 1971, 161, 237; Hodder 1974, 86–96). There is also good evidence for the movement of goods in the other direction; the distribution pattern of two types of roller-stamped flue tiles manufactured in London clearly identifies Stane Street as the main southward conduit for these goods (Lowther 1961, 131–2).

The only direct evidence for the use of Stane Street (on all sections — Sussex, Surrey and London) in the Early Saxon period comes from the current site. However, Welch suggests that the use of established Roman routes across the Weald in particular would have continued into the Saxon period (1983, 174). Welch bases this proposition on the distribution pattern of applied and cast saucer brooches which reached the settlements of Sussex from Surrey and the Thames valley using, he suggests, the Roman roads linking Sussex to London and Silchester.

With the possible exception of Mid–Late Saxon remains identified on the Shippams site (Taylor 2006, 8–12), the earliest evidence for the occupation of post-Roman Chichester comes from East Street (Magilton, in prep.) where six late seventh-century burials were discovered cut through a substantial built-up deposit into the underlying Roman street surface, perhaps suggesting disuse of the Roman road by that date (James Kenny pers. comm.). Although the See of the South Saxons was established in the first decade of the eighth century, Selsey was preferred over Chichester. This is perhaps a further indication of the demise of the former Roman town, and with it the economic importance of Stane Street.

There is little documentary evidence concerning the southern section of Stane Street in the Saxon period, with only one mention of 'the stone street' (*stan straet*) in the two principal studies of the Anglo-Saxon charters of the area (Barker 1948; Kelly 1998, 76–7). A charter of AD 930 refers to *stan straet* running from near south gate Chichester southwards to Kingsham, in Donnington (Barker 1948, 143; Kelly 1998, 76). Kelly emphasizes that

this does not refer to the Chichester-London Stane Street (1998, 77), and it is likely that the reference relates to the Chichester-Sidlesham Roman road.

The remainder of the documentary evidence is based on place-name studies. For example, Strettington, the next hamlet beyond Maudlin, is recorded in 1086 in Domesday as *Stratone* (the enclosure on Stane Street), while the next recorded reference occurs in 1270 and refers to a *Ralph de la (atte) Stanstret(e)* dwelling near Horsham (Mawer & Stenton 1929–30, 7).

Although Stane Street eventually lost its integrity as a long-distance through route, many level sections of the road would have continued in use long into the post-Roman period, with substantial sections of the route still surviving today.

EXCAVATION RESULTS (Figs 3–6)

Turf and topsoil context [1] capped the entire site to depths between 200 and 270 mm, and overlay either one of two extensive, discontinuous clayey silt deposits [2] and [5], each up to 800 mm thick. A small quantity of residual Roman pottery was recovered from deposit [5]. Variations in the depths of deposits [2] and [5] corresponded with low banks and broad depressions noted on the surface of the site prior to excavation. The underlying natural [3] consisted of Brickearth with pockets of gravel.

PREHISTORIC

Bronze Age

Pit [38] (Figs 3 & 7, Sect. 4) contained a single fill [39] that produced two sherds of Late Bronze Age pottery and a piece of fire-cracked flint. A further 22 sherds of probable Middle/Late Bronze Age pottery were residual within Roman contexts. Three further pits [50], [56] and [60] (Figs 3 & 7, Sect. 5), lay in the northwest corner of the site. Although they only produced very small quantities of burnt clay and fire-cracked flint, their relatively pale and compact fills ([51], [57] and [61] respectively) were very similar in character to [39], suggesting that they were all broadly contemporary.

In the southwest corner of the site, a shallow cut [74] at the edge of the excavation contained fill [75], similar to the other postulated Bronze Age features; it produced a single piece of fire-cracked flint. A nearby depression [76] produced no finds but contained a similar fill (Fig. 3).

Middle Iron Age

A section of ditch [32] (Figs 3 & 7, Sect. 6) with terminus contained a silty fill [33] that produced a significant quantity of probable Middle Iron Age pottery.

LATE IRON AGE/EARLY ROMAN

Ditch [48] (Figs 3 & 7, Sect. 12), measuring 6.1 m long, 0.95 m wide and 0.14 m deep, cut pit [60]. A single sherd of Dressel 1B amphora was recovered from the surface of the silty fill [49], perhaps suggesting a Late Iron Age date for the ditch, although as a surface find it may be intrusive or date the final silting of this feature.

Pit [16] (Figs 3 & 7, Sect. 7) recorded in evaluation trench 3, an area not examined further in excavation, also produced four sherds of Late Iron Age/Early Roman pottery that were unlikely to have been deposited later than AD 50/60.

ROMAN AND EARLY SAXON

Three ditches [30] (Figs 3 & 7, Sect. 8), [14]/[36] (Figs 3, 4 & 7, Sect. 9) and [66] (Figs 3 & 7, Sect. 10) ran parallel southwest–northeast across the site, with ditch [14]/[36] lying c. 7 m to the south of ditch [30], and ditch [66] lying c. 18 m to the south of ditch [14]/[36] (measurements taken between ditch centres). Ditch [30] measured between 0.90 m and 1.3 m wide and 0.38 m and 0.58 m deep, ditch [14]/[36] between 0.40 m and 0.60 m wide and 0.11 m and 0.20 m deep, and ditch [66] was between 0.65 m and 0.95 m wide and up to 0.24 m deep. Roman pottery dating to the mid-first century AD was recovered from ditch [14]/[36], and undiagnostic Roman pottery from ditch [66]. Ditch [30] contained a recut [34], measuring between 980 mm and 1.1 m wide and up to 0.20 m deep. The silty fill of this recut [31] produced Roman pottery that probably dated to c. AD 100–200.

In evaluation trench 2, a spread of flint gravel with patches of medium greyish-yellow sand [20] (Fig. 4, Sect. 1 & Fig. 10) lay immediately to the south of ditch [14]/[36]. Spread [20] produced three iron nails and overlay flint cobbles [18] (Fig. 4, Sect. 1). Ditch [14]/[36] and spread [18] were also recorded in evaluation trench 1 (Fig. 4). Spreads [18] and [20] had apparently been disturbed, probably by ploughing and the cutting of land drains. No further traces of these spreads were identified during the subsequent area excavation.

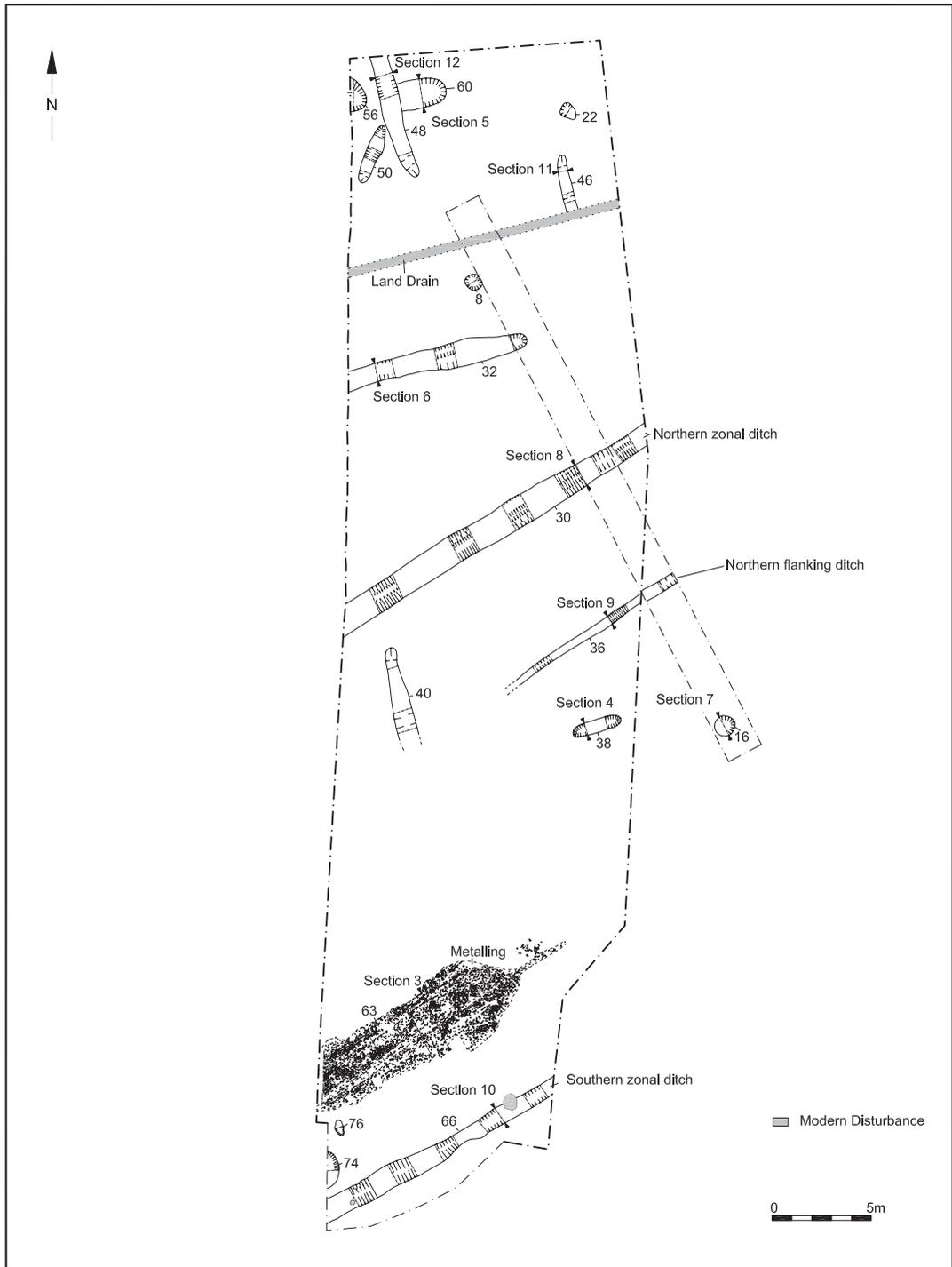


Fig. 3. Plan of evaluation trenches and excavation area.

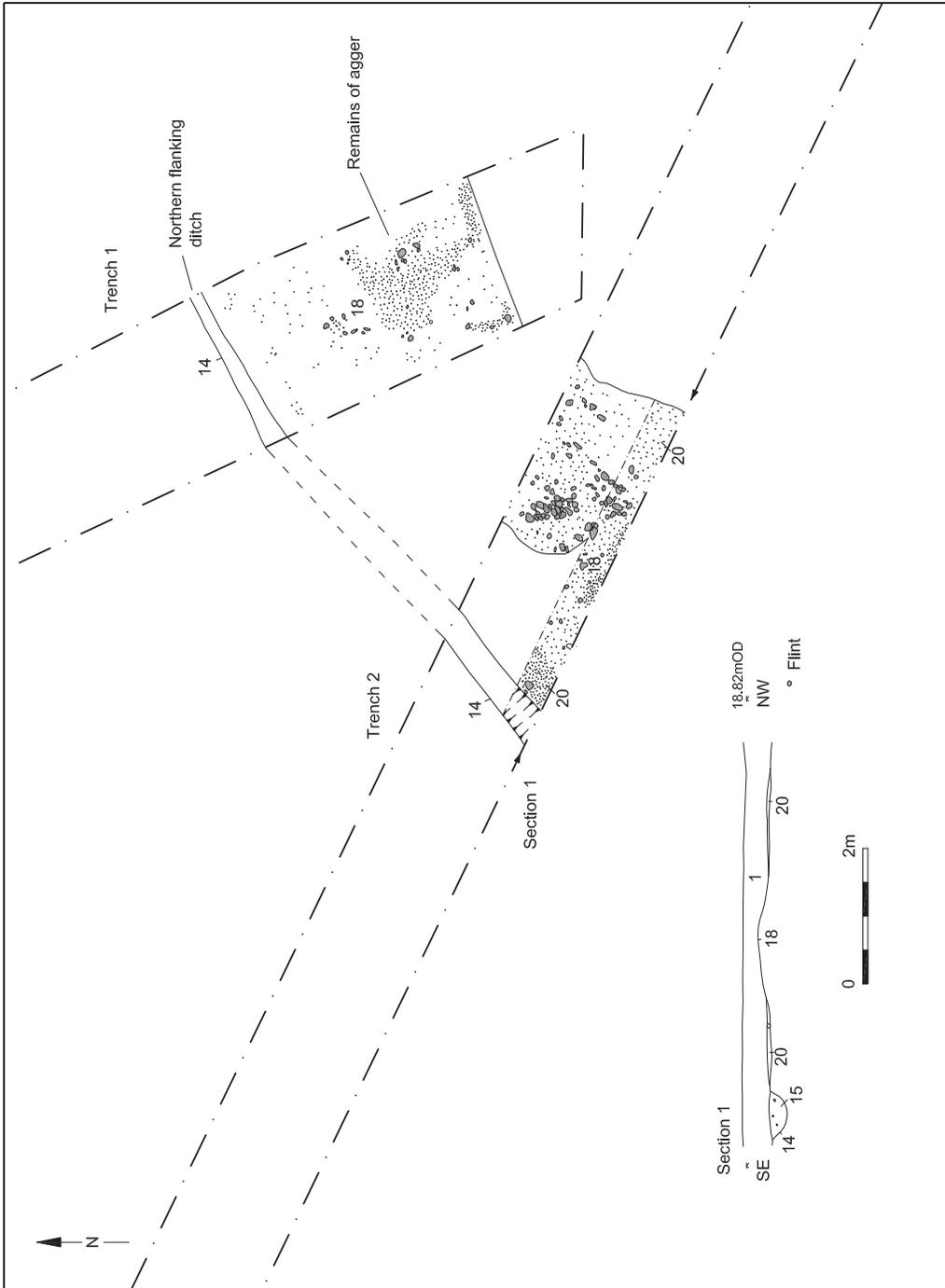


Fig. 4. Roman road *agger* [18] T1 and T2 plan and section.

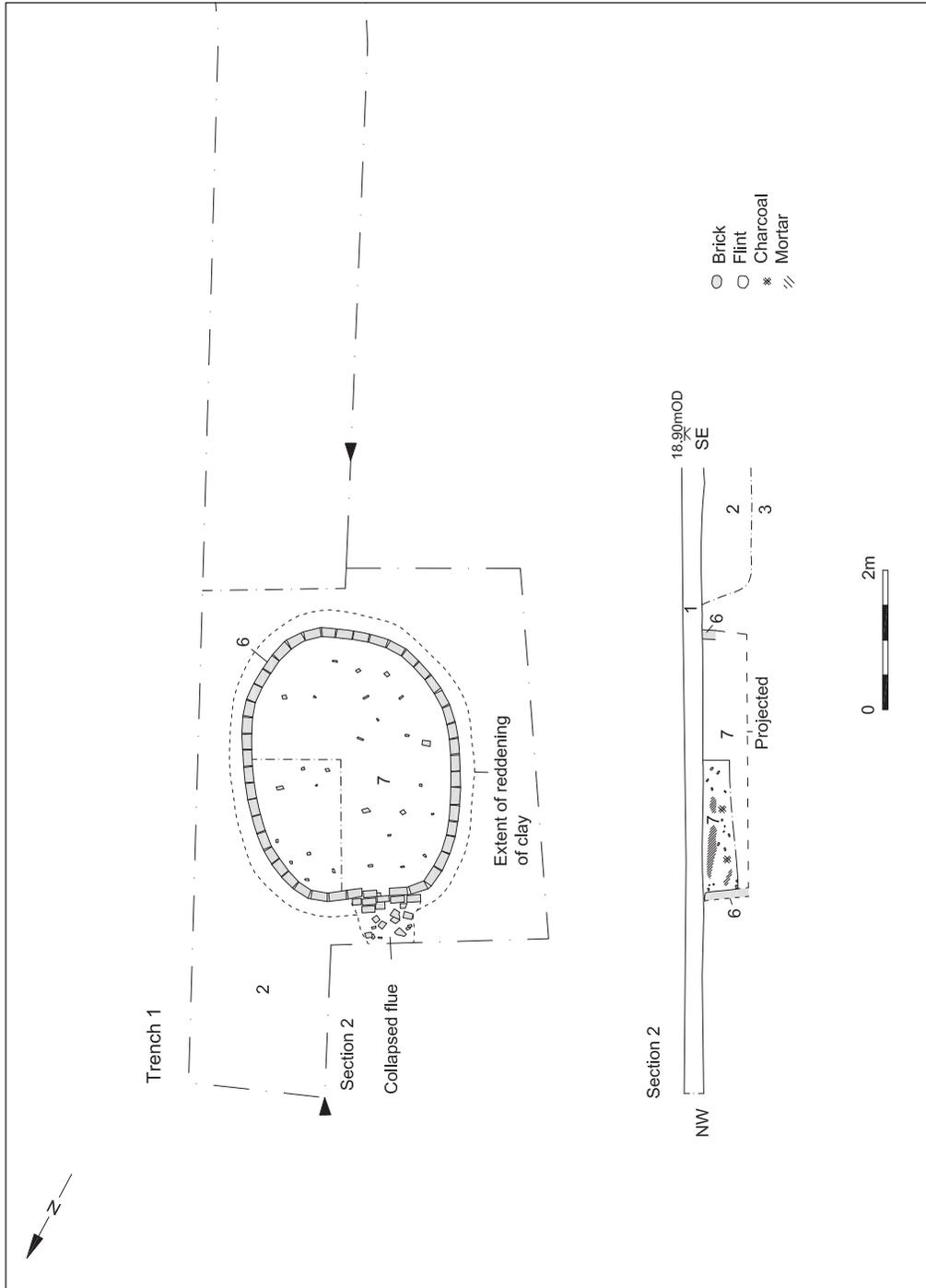


Fig. 5. Plan and section of kiln [6].

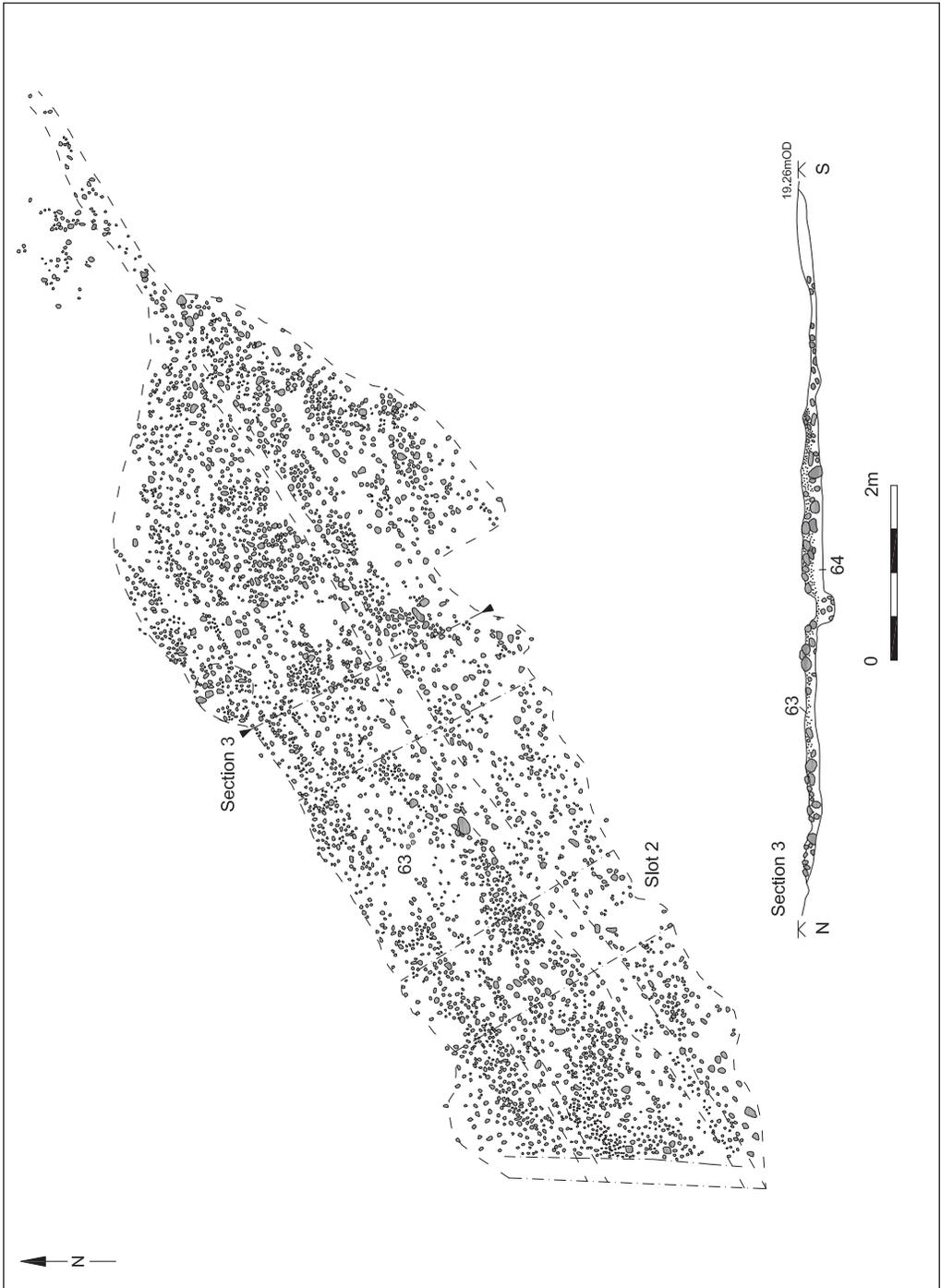


Fig. 6. Road metalling with ruts in southern 'carriageway', plan and section.

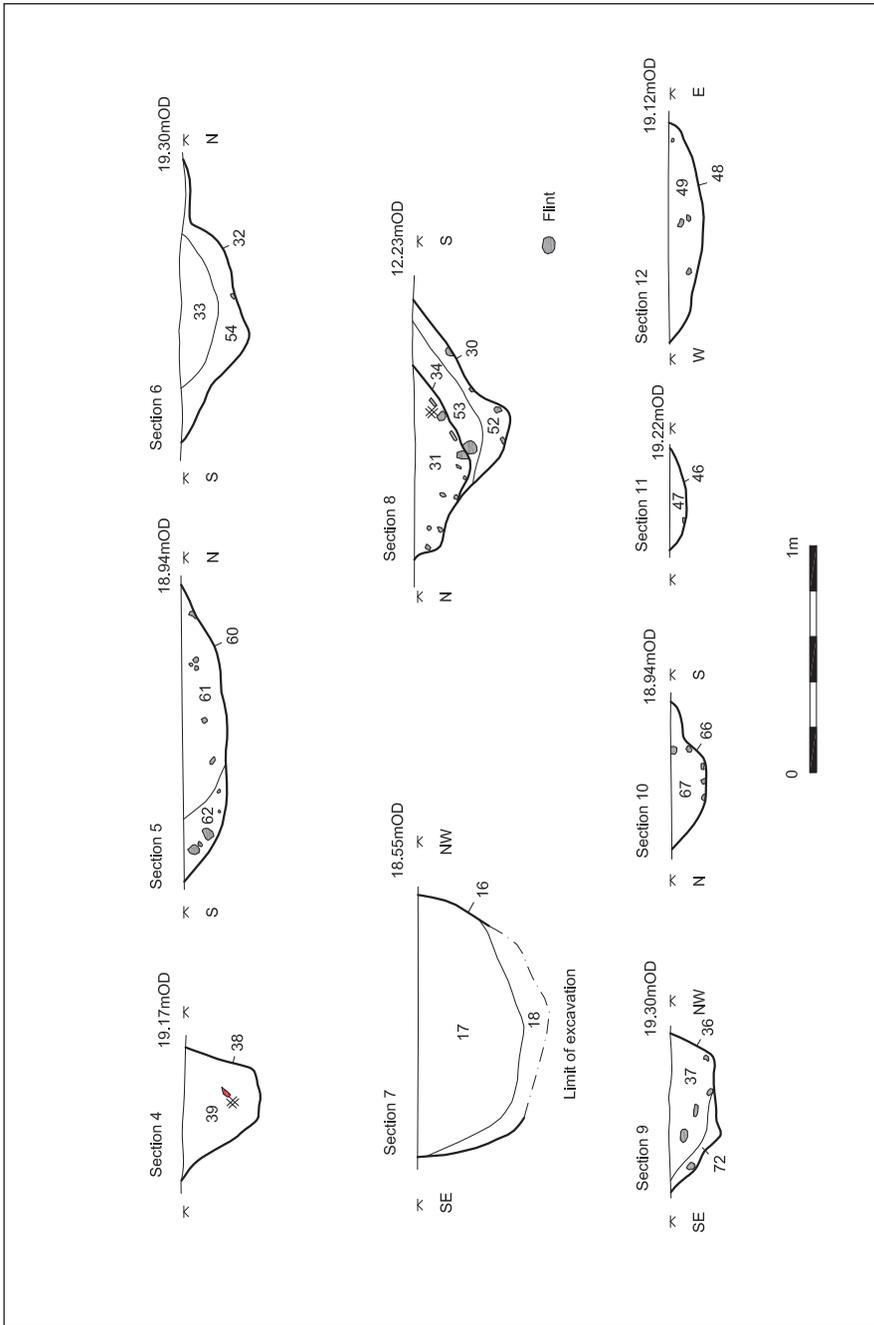


Fig. 7. Selected sections.

An extensive spread of rounded beach cobbles [63] (Figs 3 & 6, Sect. 3) with some sand [64] overlying, covered an area of c. 12 m × 3.5 m, and lay just to the north of ditch [66]. Spread [63] produced a sherd of New Forest ware pottery dated to c. AD 300–330, while [64] produced Roman pottery dated to c. AD 240–400+ and two sherds of probably Early Saxon pottery dated to c. AD 450–650, together with 40 iron nail fragments.

POST-MEDIEVAL

A kiln [6] measuring 3.8 m × 3.1 m, was discovered at the northern end of evaluation trench 1 (Fig. 5, Sect. 2), which had been targeted on a strong magnetic anomaly identified during the gradiometer survey. The kiln, which had been cut into silty deposit [2] which probably represented the backfill of broadly contemporary clay diggings, consisted of a number of hand-made, low-fired dull orange bricks which were quite crudely formed and varied in size (Fig. 9). Although no complete lengths were recovered, widths varied between 106 and 110 mm, heights varying between 50 and 52 mm. A 0.40 m wide aperture in the northern end of the feature appeared originally to have been bridged by a now collapsed body of masonry. A c. 0.20 m wide cordon of *in situ* burning surrounded the kiln, visible as a reddening of deposit [2]. The brickwork had originally been bonded with wet clay that had subsequently been fired *in situ*. The bricks can be dated to the mid-sixteenth–eighteenth century, but probably belong to the period mid-sixteenth–seventeenth century.

Kiln [6] enclosed a deposit [7] of medium reddish-grey clayey silt with frequent brick fragments and occasional flints, chalk fragments, ash and charcoal. As the kiln was revealed during the evaluation, it was not fully excavated and was not bottomed. Although no definite wasters were identified, the brick fragments from [7] include a number of over-fired and self-glazed examples, including one with a dog paw print. Although the fabric of these bricks is similar to those from the kiln structure, the heights are less, ranging between 42 and 44 mm.

Another probable post-medieval feature was identified, in addition to those examined during evaluation. A small ditch or gully [46] with a terminus, measuring between 0.45 m and 0.50 m wide and 50 mm deep, contained a silty fill [47] that produced tile, ash and shell (Figs 3 & 7, Sect 11).

DOCUMENTARY EVIDENCE

by Gwen Jones

CHARTERS

Two sources of information were searched: Barker (1948), *Sussex Anglo Saxon Charters*, *Sussex Archaeological Collections* 88, and Kelly (1998), *Charters of Selsey* (Anglo-Saxon Charters 6). No information regarding the site of the excavation was found.

STANE STREET AND THE MILL (Fig. 8)

North and west of the site, the present minor road deviates from the line of the Roman road. It seems reasonable to propose that this deviation formed following the building of a mill (SU 8770 0600) which in time was to become accessible by road from all four points of the compass. A water mill is mentioned in Domesday (Morris 1976, 11, 105) but no further reference could be found until 1569/70 when a deed which refers to various properties at Westhampnett lists 'one water mill, mill pond... and one wind mill' (Goodwood Ms E4101). The same are again referred to in a deed of 1615 (Goodwood Ms E4102). The name 'Burnt Mill' first occurs in 1659/70, when it is applied to the water mill; a windmill is also mentioned (Goodwood Ms E4116). A water mill called 'Burnt Mill' is shown on a map of 1781 (Goodwood Ms E30 plate 82); the location of this mill is shown in Figure 8, where it has been added to the Yeakell and Gardner map of 1778–83. The water mill burned down in 1773 and was apparently rebuilt (Morgan 1992, 55). In 1906 it was again severely damaged by fire, but was repaired and continued in operation into the 1930s (Newbury 2000, 15). It is not known whether the mill mentioned in Domesday was on the same site as the later water mill.

A windmill stood at Westhampnett from at least 1569/70 (see above). In 1678, Roger Eyles, a maltster, left a detailed inventory that included a windmill at Westhampnett. In 1748, in his *Memoirs of Chichester*, James Spershott states that 'The old wind mill which stood in the field on the north side of the road going to Hampnet... is blown down with Ed. Ewen the miller in it' (Haines & Arnold 1880, 153). This windmill was later rebuilt (Morgan 1992, 55).

A long field boundary (from the intersection between fields 27 and 29 to plot 41) looks like a remnant of an earlier trackway which rejoins Stocks Lane just to the north of the mill; field

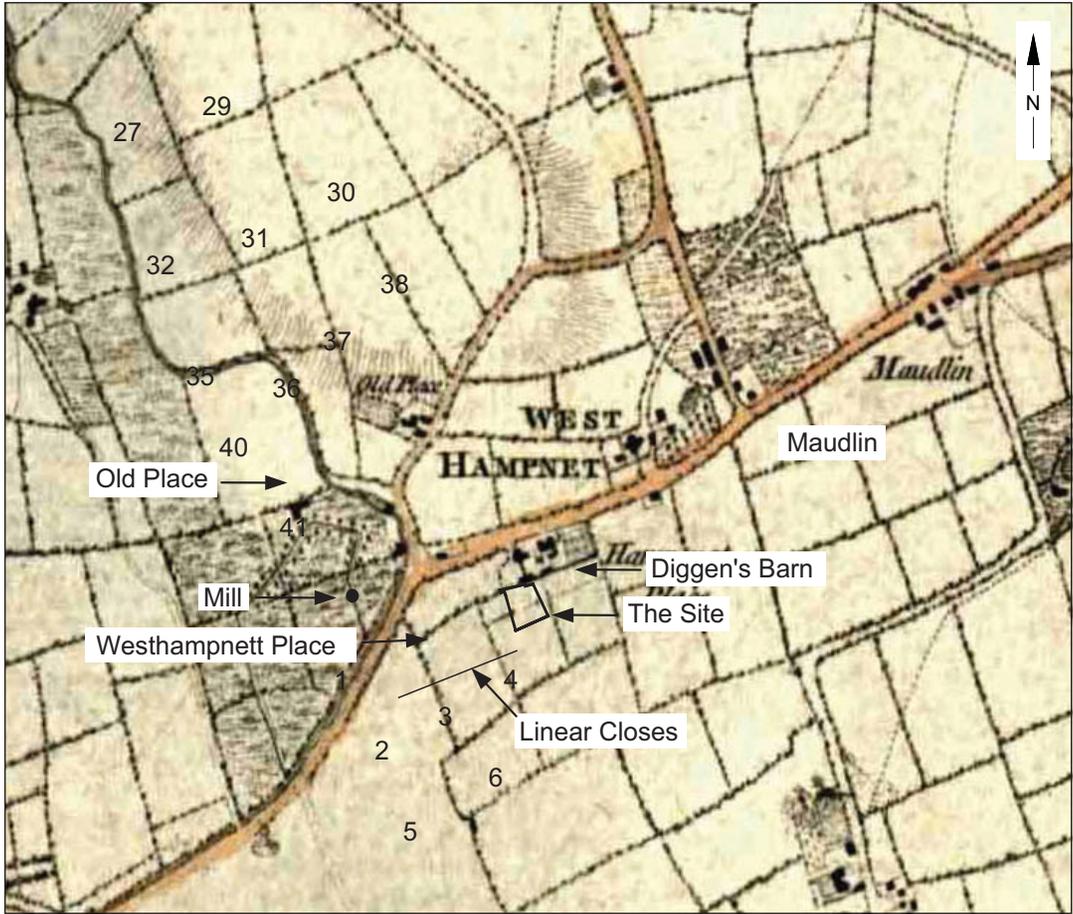


Fig. 8. Yeakell and Gardner 1778–83 base map with documentary references.

numbers from the 1781 map have been added to Yeakell and Gardner's map (Fig. 8). It crosses the land of Old Place Farm virtually in a straight line and traverses an earlier landscape (fields 27–41) arguably enclosed from the furlongs of an open field. If it were a trackway, it may have formed either merely to cut off the big loop in Stocks Lane or deliberately to gain access to the mill. The map makes it clear that the presumed trackway had itself become a field boundary, thereby reducing the acreage of the adjacent fields 27, 29, 31 and 32.

The deviation in Stane Street formed a roughly triangular area which was divided into three different ownerships; at the west end a very small part lay at the top of Port Field, which still lay in open fields, the central and largest area belonged to Westhampnett Place Farm, and the eastern end,

the site of the archaeological investigation, was part of Mr Francis Diggens's farm.

Francis Diggens's land comprised seven fields, one of which contained a small barn which stood on the line of the Roman road close to the eastern extremity of the site (Fig. 8). This field was in use as arable on the tithe map and was then, and presumably earlier, cultivated in a normal rotation.

The middle section, which belonged to Westhampnett Place, contained some of the farm buildings which, judging by the name of the field to the south (the Garden Field), were separated from Francis Diggens' field by a piece of garden ground. The width and alignment of the small linear closes (Fig. 8) shown here south of the farm buildings and the garden were possibly influenced by the presence of the underlying southern



Fig. 9. Kiln [6].

flanking ditch to the Roman road. It is difficult otherwise to account for their size and shape.

THE SITE OF THE EXCAVATION

Either a field boundary, or more probably a wall (*see below*), separated the Westhampnett Place ground from the eastern part of the present paddock.

Westhampnett Place House had been built during the reign of Queen Elizabeth. At about the beginning of the seventeenth century it was owned by Sir John Chapman, who was an active commissioner for the Parliament. His heir, a woman, sold it to Hugh Reason, esquire. He, in turn, sold it to Sir William Hutchins Williams, who left it to his son, Sir William Peere Williams, and he sold it to the Duke of Richmond in either 1801 or 1802; the date is inferred from the fact that in 1802 the Duke paid the Land Tax on the property (Salzman 1953 and Land Tax archive).

Sir William Hutchins Williams rebuilt Westhampnett Place House in 1720. Following its purchase by the Duke of Richmond, it later became the parish workhouse. This workhouse was completely burnt down in November 1899.

In 1900 the Duke of Richmond sold the ground on which it had stood to the Guardians of the Poor, and they were subsequently responsible for building the Union Workhouse, larger than the earlier workhouse but on the same site. This later became a hospital for infectious diseases (WSRO Goodwood Ms E4712/13 and Salzman 1953).

At the sale in 1900 the Duke insisted that 'the western moiety of the east wall (the western side of it)...' should not be removed, so that it should remain a party wall. This wall must either have fallen down or been taken away when the two parts of the present field became one (WSRO Goodwood Ms E4712/13).

Francis Diggens's holding remained in his possession until 1805, when the Duke of Richmond bought it and retained it with the rest of his estate, which eventually passed to his heirs (WSRO MF 655: Land Tax).

After it passed into the Richmond (Goodwood) estate in 1805, it is interesting to note that on the Land Tax returns it is named as 'Beggars Barn Land', a name which implies that the quality of the land was poor. This poor quality perhaps resulted



Fig. 10. Roman road *Agger* [18] in Trench 1.

in part from the close presence of the Roman road underneath, but very possibly was also due to removal of brickearth from the surface for the purpose of brickmaking.

BRICKMAKING

Brickmaking must have been taking place in the area from at least the sixteenth century; both the original house at Old Place Farm and that at Westhampnett Place Farm were of brick (Salzman 1953, 1776–77), and it is likely that those early bricks were made close to the buildings for which they were intended.

It is clear that the soil on and close to the site was suitable for the purpose. Another map in the 1781 survey shows brick kilns and furze growing as crops in three fields on Church Farm which lay immediately north of the site across the road. There was another kiln further east, close to Maudlin Farm.

The elliptical kiln uncovered during the excavation suggests by its shape, by 'the complete absence of pottery and tile wasters' and by the

'presence of chalk fragments within the fill', that it might have been a lime kiln or perhaps a dual-purpose lime kiln / brick kiln. The size of the bricks in the walls of the kiln suggested a date range between the mid-sixteenth and early eighteenth centuries, with a probable date falling between the mid-sixteenth and seventeenth centuries.

CONCLUSIONS

At the time when the 1781 survey was made there were still open fields in existence at nearby Strettington and Westerton to the north and east, and at Port Field to the south-west of Westhampnett. Much of the area appears to have been cultivated originally in blocks of open field, and enclosure of the furlongs seems to have begun following the difficulties of the late fourteenth century and to have continued sporadically during the fifteenth to seventeenth centuries. The building of Westhampnett Place and of Old Place during the sixteenth century suggests a possible date for the enclosure of the furlongs on the land of those farms.

Just as the later field boundaries reflect earlier land division, it is possible that the mill shown on the 1781 map occupied the same site as the one recorded in Domesday, although perhaps partially or completely rebuilt.

The existence of open fields must have influenced the courses of the local roads, and many, if not most of those that now serve Westhampnett, are visible on earlier maps. Until the more sweeping changes of the nineteenth and twentieth centuries affected the local landscape, it is probable that the principal effect of enclosure was to fossilize the general outlines of a much earlier landscape. If that is true in Westhampnett, then the deviation away from Stane Street could have occurred in the medieval period.

When William Hutchins Williams acquired this property the first mansion would have been 150 or more years old. The second half of the seventeenth and the early eighteenth centuries were periods of intense building activity throughout the country. Because of the nature and size of the bricks in the walls of the elliptical kiln, it seems reasonable to suggest that this kiln supplied lime for the mortar and/or the bricks required for either the building of Westhampnett Place House in the Elizabethan period or, perhaps less likely, its rebuilding in 1720.



Fig. 11. Metalling and ruts [63] in southern 'carriageway'.

THE FINDS

THE PREHISTORIC POTTERY

by Mike Seager Thomas

The prehistoric pottery assemblage from Stane Street, Westhampnett, comprises 24 sherds weighing approximately 200 grams. Four different flint-tempered fabrics are represented but, owing to similarities between flint-tempered fabrics belonging to different prehistoric periods locally and the absence from the assemblage of chronologically diagnostic feature sherds, it is impossible to date them with certainty. The most likely possibilities include Neolithic or Middle Bronze Age for a very coarse but sparsely tempered fabric (CF: context [31] 1 sherd/4 g), Middle and/or Late Bronze Age for a medium to coarse, moderately tempered fabric (MCF: contexts [39] 2 sherds/1 g and [64] 2 sherds/4 g), Late Bronze Age for a medium, sparsely tempered fabric (MF1: context [31] 3 sherds/3 g), and Middle Iron Age for a medium, moderately tempered fabric (MF2: context [33] 16 sherds/181 g). All these have similarly dated parallels in pottery assemblages from the immediate area and elsewhere on the Coastal Plain (for example Drayton, Lavant, Merston and Westhampnett, area 5, all unpublished).

THE ROMAN AND SAXON POTTERY

by Malcolm Lyne

Introduction

The excavation yielded 61 sherds of Roman pottery from seven contexts; two fragments of probable Early Saxon pottery were also present from above the road surface.

Methodology

All the assemblages were quantified by numbers of sherds per fabric. These fabrics were identified using a $\times 8$ magnification lens with built-in metric graticule for determining the natures, forms, sizes and frequencies of added filler inclusions. None of the assemblages was large enough for more meaningful methods of quantification.

The assemblages

Upper fill of Pit [16] in evaluation trench 3 (Context [17])

The upper fill of pit [16] yielded four fragments of Late Iron Age/'Overlap' pottery, of which three were in a black handmade fabric with mixed up to 1.00 mm calcined flint, 0.30 mm quartz sand and buff grog filler, and one in a similar fabric but lacking the calcined flint element. There are no rims or other diagnostic sherds; the best that can be said is

that the assemblage is unlikely to have been deposited later than AD 50/60.

Fill of the northern flanking ditch [14] in evaluation trench 1 (Context [15])

This yielded one sherd of South Gaulish La Graufesenque Samian from a dish of uncertain type.

Fill [31] of the recut [34] of the northern zonal ditch [30]

The original ditch did not yield any pottery. The recut, however, yielded 50 sherds, of which 24 are from a single everted-rim jar of St Pancras cemetery type 1a (Down 1971, fig. 5.19) in grey Rowlands Castle ware fired black. This form falls within Fishbourne jar type 316 (Cunliffe 1971), which is dated *c.* AD 100–300, but more recent work by the author on the pottery from the latest Fishbourne excavations suggests a more precise *c.* AD 100–200 date range.

The other sherds from this context, with the exception of four jar sherds in rough Hardham greyware, are all from the Rowlands Castle kilns and include a handle fragment from a flagon of Fishbourne type 303 (*c.* AD 100–130/50).

Road metallurgy [63]

The road metallurgy yielded just one pottery fragment, from a bottle of Fulford's type 1.9 (1975) in New Forest Colour-coat fabric 1b and dated to *c.* AD 300–330.

Road surface sand [64]

The three sherds from this context comprise an abraded flake in Oxfordshire Red Colour-coat fabric (*c.* AD 240–400+) and two friable fragments in handmade black fabric fired brown with up to 1.00 mm quartz sand filler. These latter fragments would appear to be Early Saxon in date, and are of particular interest in their context, in that they indicate that the road was still in use during the period *c.* AD 450–650.

THE WORKED FLINT

by Chris Butler

A small assemblage of 16 pieces of struck flint weighing 197 g was recovered.

The debitage is mostly undiagnostic, comprising eight small hard hammer-struck flakes and fragments. However, there is a single bladelet fragment, a soft hammer-struck fragment from a small flake or bladelet, and a two-platform flake and bladelet core, all of which are likely to be Mesolithic.

The only implement in the assemblage is an end scraper, manufactured on a hard hammer-struck flake with semi-abrupt retouch around its distal end. This scraper and some of the other pieces of debitage are probably Later Neolithic or Early Bronze Age in date.

SAND SAMPLE FROM CONTEXT [64]

by John E. Whittaker

Introduction

A sample of sand from [64] was submitted for microfossil analysis with the aim of sourcing the material and establishing whether the raw materials for the sand capping of the Roman road were extracted from either the coastal beach or one of the raised beaches in the area.

Methodology

The sand sample was washed through a 75-micron sieve to remove the clay fraction. The resultant dried residue was examined under a binocular microscope.

Results and discussion

The sand capping of the southern 'carriageway' of Stane Street at Westhampnett could have come from a variety of sources. It is a reasonable assumption that these sources would have been local. Possibilities, therefore, are either sand from a local Tertiary deposit, or sand from one of many Pleistocene deposits in the area: from one of several raised beaches (Aldingbourne would be nearest to the site), from a solifluction deposit, or from the sand and gravel deposits of the Lavant Valley; sand from a modern coastal beach could also be considered.

Previous work in the area suggests that, if not decalcified, the Tertiaries and the various raised beaches (Goodwood-Slindon, Aldingbourne, Brighton-Norton and Pagham), each with its distinctive suites of microfossils, ought to be immediately recognisable. Modern beach sand should also be recognisable from associated shells, both microscopic and macroscopic. Although the solifluction deposits ('head') in the area can contain distinctive terrestrial and freshwater microfaunas (earthworm granules, slug plates, molluscs and ostracods), it was thought unlikely that this source would be used because of its large, unwieldy and sticky clay fraction. River gravels, especially from the Lavant Valley, would however almost certainly be unfossiliferous.

Unfortunately, the Stane Street sand sample was completely barren of microfossils, or any calcareous remains whatsoever, so any sourcing has to be made mainly on negative evidence.

The sand sample, nevertheless, is very distinctive and has been termed 'sharp sand', either very immature *per se*, or because the quartz and flint grains have subsequently been shattered by human activity, by the very nature of their use for infilling a road surface (by the passage of carts, etc.), or by their passage through some sort of crushing-mill. The lack of a calcareous component is unlikely to be due to crushing or decalcification, since it was placed there nearly 2000 years ago, which would appear to preclude its provenance from a local Tertiary deposit, a raised beach or a modern beach. Moreover, marine sand would be sub-rounded, not sharp. Far more likely would be its sourcing from the Lavant Valley, from the so-called 'Chichester Fan Gravels'.

DISCUSSION

The earliest activity identified on the site was represented by small quantities of residual probably Mesolithic and Later Neolithic/Early Bronze Age

flintwork. Material of this nature is often recovered from sites of all periods on the West Sussex coastal plain, and can probably be regarded as the expected 'background' level in this location.

PREHISTORIC

It was likely that the identified prehistoric features had been significantly truncated by ploughing and/or activity related to brickearth digging, and consequently that associated shallower features might have been completely destroyed.

Bronze Age

The earliest firmly dated prehistoric feature was pit [38], which produced two sherds of Late Bronze Age pottery. Although they produced no dating evidence, the three shallow features [50], [56] and [60] in the north-west corner of the site were also probably prehistoric in origin, perhaps contemporary with pit [38]. The nature of the two features [74] and [76] in the southwestern corner of the site remains unclear, although they can perhaps be tentatively attributed to this period.

The Bronze Age features perhaps represented relatively isolated working hollows, or may have been peripheral to an area of Middle/Late Bronze Age settlement identified c. 500 m to the northeast beside Claypit Lane (Chadwick 2006).

Middle Iron Age

The Middle Iron Age ditch [32] was perhaps an element of a field or field system. Ditch [48] lay at right angles to ditch [32] and was perhaps a further element of the suggested field system. The single sherd of amphora from the surface of fill [49] suggests the ditch was out of use by the Late Iron Age (at the latest), although the sherd itself may relate to later activity on the site and simply became incorporated into the surface of the infilled ditch.

LATE IRON AGE/EARLY ROMAN

The fine silty character and mottled greenish grey colour of the lower fill [19] of pit [16] suggested that it may initially have functioned as a cesspit. Late Iron Age/Romano-British pottery dating to no later than AD 50/60 and bone from the upper fill [17] indicated that it had subsequently been used for disposal of domestic rubbish. The nature of the pit fills, and the apparent absence of associated features to the north, suggested that it was associated with semi-permanent or permanent settlement, perhaps just to the south of the current site. Given the feature's dating and location within what was to become the southern lane/carriageway of the Roman road, it perhaps represents some of the last significant 'pre-road' activity on the site.

ROMANO-BRITISH

The Roman features all related to Roman Stane Street. The northernmost ditch [30], with recut [34], represented the zonal ditch on that side of the road, ditch [14]/[36] was the northern flanking ditch beside the *agger* [18] (no trace of a southern flanking ditch was found), ditch [66] was the southern zonal ditch, and spreads [63]/[64] represented metalling immediately north of zonal ditch [66]. By combining the results of the evaluation, which identified the *agger* and the northern zonal and flanking ditches, with the evidence from the excavation, which revealed a metalled southern carriageway and southern flanking ditch, a full picture of Roman Stane Street at this location can be constructed.

The road was c. 25 m wide, as measured between the northern and southern zonal ditches, and comprised at least two, probably three, lanes or 'carriageways' (all measurements taken from the centres of the ditches). The width of the northern carriageway, as measured between the northern zonal ditch and northern flanking ditch, was c. 7 m. The width of the southern carriageway was uncertain, as only the southern zonal ditch was identified and no trace of the southern flanking ditch was found. Although metalling was present on the southern carriageway, no trace of metalling was found on the proposed northern carriageway. The central carriageway was based on a rounded flint gravel, cobble and sand *agger* which, although the south side had probably been removed, perhaps by brickearth digging, survived to a width of 4.8 m.

This layout is comparable to a section through Roman Stane Street c. 700 m to the southwest, which produced an overall width for the road of 27.7 m (Lowther 1941, 111–14). Although Lowther did not identify any flanking ditches, he recorded a zonal ditch on either side of the road, located at c. 9 m from each edge of the *agger*. Interestingly, Lowther also recorded a recut in the northern zonal ditch, perhaps suggesting that an extensive programme of maintenance had been carried out. Lowther identified a gravel and sand metalling across the full c. 27.5 m width of the road, with a slightly raised centrally-placed 9 m wide *agger*. This perhaps suggests that on the current site almost half the *agger* may have been lost, probably together with the southern flanking ditch and the metalling on the proposed northern carriageway.

However, a different road layout was recorded

in another section, probably *c.* 100 m to the west of Lowther's at a location that is described as 'A few yards after the beginning of the bend, on the south side of the road' (Winbolt 1936, 13). In 1927 or a little before, Winbolt observed part of the road in the edge of 'an old gravel quarry'; although he does not use the term *agger* that is certainly what he seems to describe as follows.

'Precisely at this point are traces of a filled-in road. It was 14 feet (4.3 m) wide over the top, and its depth in the middle 2 1/2 feet [760 mm]... The bottom was outlined with flints; the filling was sand which had blackened from use on the surface. Above the contour of the road was a foot of black topsoil which is now ploughed.'

He confirmed the alignment with Stane Street by probing eastward. He also observed that 'To the south is a width of 20 feet [6.1m], where the natural sand and gravel contains much chalk... There are signs of the southern ditch' (1936, 13). The width of the *agger* he describes is close to that of the *agger* [18] recorded on the current site, while the chalk concentration might represent metalling on a southern carriageway beside a southern zonal ditch, giving a maximum road width at that location of 10.4 m.

This is considerably less than the road widths recorded on the current site (25 m) and in Lowther's section (27.7 m). The narrowing of Stane Street at this point was perhaps due to the proximity of a crossing of the River Lavant. Based on soil map data, Magilton suggests that before the Lavant was diverted it would probably have flowed southwards along the Paghams Rife or Bremere Rife, intersecting with Stane Street between 500 m and 1000 m west of the current site (Magilton 1996b, 39). Various dates have been put forward for the Lavant diversion, Down suggesting a series of possible dates ranging between the fourth century AD and the fourteenth century (1981, 84), while Magilton favours a tenth-century date (1996b, 41). It is generally accepted, therefore, that Roman Stane Street would originally have had to cross the Lavant, and Winbolt's section could have been close to it.

The *agger* [18] was best preserved in evaluation trench 2, with remnants still surviving in trench 1; however, no trace of it whatsoever was identified within the excavation area. It was confirmed early on in the programme of investigation that the *agger*

as seen in trenches 1 and 2 would be preserved *in situ*, so only minimal cleaning was carried out and no sections were cut through it. Although the *agger* had been somewhat degraded, probably by ploughing, the apparent upper layers had consisted of rounded flint cobbles overlain by rounded flint gravel and shelly sand. The presence of shell and the degree of rounding of the flints indicated that the material had derived from a marine environment. Riverine gravels consist primarily of sub-angular with some sub-rounded material and, viewed in bulk, can be readily distinguished from marine gravel (Joe Munds of Brett Aggregates pers. comm.). The most likely source for the road materials was the active beach. The absence of 'exotics' (granite etc.) indicated that it was unlikely that the gravel and cobbles originated from the Aldingbourne 24–27.5 m OD raised beach (Mark Roberts, pers. comm.).

A sand unit is often present within the make-up of Roman roads; for example, both Winbolt and Lowther describe the cambered *agger* as being constructed principally of sand (Winbolt, 1935, 13; Lowther, 1941, 112). However, sand may not only have acted as a binding agent for the larger material, but also have served to cushion the footfall of horses and marching soldiers. Based on a reconstruction of Dere Street Roman road, it is suggested that the incidence of knee injuries could also be greatly reduced by the cushioning effect of grass growing through the road surface (Radesdale 2001, 32–3).

The *agger* was flanked by at least one narrow ditch or gully that probably served as a gutter, while more substantial ditches, the zonal ditches, defined the outer edges of the outside carriageways and provided drainage for the road as a whole. Within the southern carriageway, spread [63/64] represented the remains of metalling, [63] consisting of rounded flint cobbles and [64] probably being the remnants of the sand surfacing. Following the removal of later deposits, wheel ruts with a track width of *c.* 1.5 m (4 ft 10 1/2 in.) were clearly visible in the road surface (Figs 6 & 11). This measurement compares very closely with an average track width of 4 ft 9 1/2 in. calculated by Margary (1940, 50–52) when recording the rutted surface of the London-Lewes Roman road at Holtje.

The rounded flint cobble material [63] in the southern carriageway was identical in character to that seen in the *agger* [18] and was almost

certainly marine in origin. However, analysis of sand [64] indicated that it was not a product of a modern beach or of a raised beach, but was perhaps the result of human processing and/or derived from the so-called Chichester Fan Gravels in the Lavant valley. The difference in the sourcing of the sand suggests that the materials were laid down at different times, and it has already been suggested that the conversion of the southern lane into a metalled carriageway occurred after the construction of the *agger*. One possibility that must be considered, however, is that the sand [64] was not related to the construction of the road, but represented cargo spillage. Although the latest datable material recovered from the surface of the road was Early Saxon, the road may have still been in use at the time of the building of a pre-Conquest masonry Westhampnett church. If this were the case, sand [64] may have been one of the building materials brought on to the site, the spillage of which enveloped the Early Saxon pottery already present between the cobbles.

There was clear evidence of foot traffic. Of the 40 Roman nail fragments from the site, four came from the *agger* [18] and 36 came from the surface [64] of the southern carriageway. Although the majority of the fragments appeared to be from heavily mineralized general-purpose types of nail, at least nine hobnail fragments were present. Most were too corroded to ascertain accurately their dimensions but, where measurable, the heads had diameters of *c.* 11 mm with lengths of *c.* 6mm.

A road of similar width is recorded near Verulamium, and Lowther suggests that this layout might not be an uncommon feature of road construction on the approaches to major settlements (1941, 112). However, Stane Street was probably built before the establishment of Roman Chichester, as a single carriageway that was subsequently widened to accommodate increased traffic. Lowther's section certainly suggests that the metalling on the lanes either side of the *agger* was laid down after the construction of the *agger* (1941, 110–14). As previously stated, a recut was recorded in the northern zonal ditch in both the current excavation and Lowther's section. If the northern lane were adopted as a carriageway after the initial establishment of a single carriageway road, the zonal ditch might have been recut as part of the expansion programme in the second century AD (pottery dated to AD 100–200 was recovered from recut [34]).

Davies highlights the variability in Roman road construction, which he concludes reflects a pragmatic approach which took into account such factors as topography, availability of local materials, volume and type of traffic, etc. (2002a, 10–11). There is certainly evidence of local variation in the section of road to the northeast of Westhampnett. At Gumber Corner on Glattling Down Curwen recorded a very similar tripartite form to the current site; the road was divided into three metalled lanes with an overall width of *c.* 25 m, the central lane was raised on an *agger*, and the side lanes were flat (1913, 134–48). Research is ongoing; a recent re-interpretation of the road profile at Gumber suggests that the upper layers of the *agger* were added in the post-Roman period to form a boundary bank (Davies 2002b, 111).

Approximately 5 km to the northeast of the current site on Halnaker Hill Winbolt recorded a one- or possibly two-lane section, one raised and one sunken, with a total width of over 17 m (1936, 18–20). It should be stated, however, that Margary (1965, 88) interprets the sunken element of the road as a modern track. A noticeable similarity with the current site was that at Halnaker Hill the one identified flanking ditch was no more than a gutter, while its corresponding zonal ditch was *c.* 2.5 m wide. Further to the northeast at Grevatt's Wood, Bury, a *c.* 11 m-wide embankment carries a *c.* 6 m-wide metalled carriageway across marshy ground (Winbolt 1936, 33, 40–41).

The small but significant pottery assemblage from the current site produced a very useful dating framework for the road and associated features. Mid first-century pottery from the northern flanking ditch [14] corresponded with the generally accepted date for the construction of Roman Stane Street. Ceramic evidence from the single recut [34] of the northern zonal ditch [30] indicated that between AD 100 and 200 a perhaps extensive programme of works (a recut was also recorded in Lowther's section of the northern zonal ditch) had been carried out. These works may have included, or indeed principally concerned, the conversion of the lane between the northern flanking ditch and the northern zonal ditch into a metalled carriageway. The southern lane may also have been metalled at this time. Pottery from the cobbles [63] and sand [64] indicated that the southern lane had been metalled and was in use by at least *c.* AD 330, and perhaps continued in use (or saw a

period of use) in the Early Saxon period at some time between c. AD 450 and 650. From the severity of the rutting of the road surface, it was clear that by this period regular maintenance had ceased.

There is evidence relating to the road between the Roman forts at Castleford and York that the side lanes were used in the post-Roman period in preference to the *agger* (West Yorkshire Archaeology Service 2001, 107). The report's author quotes from an eighteenth-century description of the Roman ridge road by Daniel Defoe as follows.

'... in several parts... travellers have not made much use of the causeway, it being very high, and perhaps exposing them too much to the wind and weather, but have rather chosen to go on either side, so that the causeway in some places lies flat and smooth on the top as if it had never been made use of at all... there being not so much as the mark of a wheel upon it'.

EARLY SAXON

Although a number of cemeteries are known, very few Early Saxon settlements sites have been identified in West Sussex. However, in recent years two sites very close to the current site, the A27 Westhampnett Bypass (Fitzpatrick 1997, 287–94; Fitzpatrick *et al.* 2008) and the Rolls-Royce site on Claypit Lane (Chadwick 2006, 24) have produced clear evidence of Early Saxon occupation. On the A27 bypass site, in addition to a small fifth- to seventh-century cemetery and funerary enclosure in Area 2, two Sunken Featured Buildings (SFBs) were recorded in Areas 4 and 7 (Fitzpatrick *et al.* 2008).

The Claypit Lane site (Area 1) recorded two further SFBs, with a sixth- to seventh-century date. Although the Claypit Lane SFBs were located c. 400 m to the north of Stane Street, they were close to (10 m and 45 m) a LIA/Romano-British trackway or driveway which ran broadly east-west and was defined by two parallel ditches between 3.5 m and 6 m apart. The southerly trackway ditch produced a fragment of Roman roof tile (*tegula*). Perhaps significantly, the Area 7 SFB recorded during the A27 bypass excavations lay perhaps c. 30 m to the south of the projected alignment of the trackway (the Area 4 SFB was perhaps c. 200 m to the south of the alignment) (Fitzpatrick *et al.* 2008).

If the alignment of the trackway were extended eastwards, it would intersect with Stane Street a little to the north of Maudlin. Considering

that three of the four SFBs lay near the proposed alignment, the trackway might have begun as a pre-Roman route, part of which was perhaps subsequently incorporated into the Roman road system, and which survived into the Saxon period. The trackway also aligns with the multi-period funerary site identified during the A27 bypass Area 2 excavations (Fitzpatrick 1997, 13–294; Fitzpatrick *et al.* 2008).

The evidence from the current site for the use of Stane Street in the Early Saxon period between AD 450 and 650 is both very interesting and unexpected. However, it cannot be taken as suggestive of the proposition that Stane Street, and by implication Roman Chichester, continued to function as viable economic units during this period. It is more likely that this particular section of Stane Street was used as a local road linking small settlements. There was undoubtedly a Saxon presence in Chichester in the second half of the seventh century; six late seventh-century burials were discovered in East Street cut into the Roman street surface (Magilton in prep.), and during the recent excavations at the Shippams site an SFB was recorded, together with perhaps Middle–Late Saxon pottery (Taylor 2006). As previously discussed, four further SFBs and a small cemetery all dating to the fifth–seventh centuries have been recorded just to the east of Chichester on the A27 bypass and Rolls-Royce sites (Fitzpatrick *et al.* 2008; Chadwick 2006, 24). It is possible, therefore, that the Westhampnett section of Stane Street served as a link between these communities.

POST-MEDIEVAL

Deposit [2] was probably the result of the backfilling of a worked-out clay pit. Low banks and broad depressions were noted within the area of interest before the start of work, and can also be seen in the paddocks immediately to the east. It is therefore likely that much of the area has been dug for brickearth, probably in the post-medieval period. Deposit [5] was perhaps another unit of made ground associated with digging for clay. Gully [46] and the shallow pit [8] were probably associated with clay pit digging and/or brick-making on or near the site.

Kiln [6] was probably an updraught brick kiln, with the aperture at the northern end representing a fire hole. This interpretation, however, is based principally on the absence of pottery or tile wasters. Although the presence of chalk fragments within

deposit [7] perhaps suggests lime production, Beswick suggests that brick kilns often doubled as lime kilns (2001, 17–22). Due to the small size of the kiln it is possible that it was intended to produce bricks for a single nearby building project. If this were the case, the presence of chalk might be associated with on-site production of lime mortar. The presence of an animal print on a brick fragment from deposit [7] indicated that the green bricks were probably laid out to dry in the open. This practice again suggests an early date for the kiln.

The gradiometer survey also identified a second, less magnetically strong, anomaly just to the east of kiln [6]. This perhaps represents the site of a clamp kiln where the bricks used in the construction of kiln [6] were made, or may represent another updraught kiln similar to that already identified.

Kiln [6] was almost certainly constructed within the backfill of an earlier clay pit [2]. This is supported by the complete absence of brick fragments or charcoal within deposit [2], indicating that the earlier pit had been completely backfilled by the time kiln [6] was constructed.

Author: Greg Priestley-Bell, Archaeology South-East, Units 1 & 2, 2 Chapel Place, Portslade, East Sussex, BN41 1DR.

In conclusion, it is probable that the kiln represents a mid sixteenth- to seventeenth-century structure built specifically for an individual building project, perhaps the insertion of a brick fireplace and chimney into an existing timber-framed house. Modification of medieval houses in this way was common during the sixteenth and seventeenth centuries as the use of brick increased. Alternatively, the kiln may have been associated with the sixteenth-century construction of the first brick-built Elizabethan Westhampnett Place House.

Acknowledgements

Archaeology South-East would like to thank Jacobs for their initial commission of the project, and in particular Peter Fasham for his support. We would also like to thank John Mills, Mark Taylor and Keith Watson of West Sussex County Council for their advice and assistance throughout all stages of the project. The author would like to thank James Kenny (Chichester District Council) and Hugh Davies for their input, Joe Munds and Richard Goddings for their comments on aggregate, and especially Jonathan Dicks, Dave Dunkin, Sid Jeffries, Justin Russell, Geoff Smith and Dave Yates for their work on site. The project was managed by Darryl Palmer (fieldwork) and Louise Rayner (post-excavation).

REFERENCES

MANUSCRIPT SOURCES

- West Sussex Record Office (WSRO) Catalogue of Goodwood Estate Archives vols 1 & 2
 WSRO Goodwood Ms E30 plate 82 (microfiche copy)
 WSRO Goodwood Ms E30 plate 83 (microfiche copy)
 WSRO Goodwood Ms E30 plate 84 (microfiche copy)
 WSRO Goodwood Ms E4101: covenant 1569/70
 WSRO Goodwood Ms E4102: covenant 1615
 WSRO Goodwood MS E4116: covenant 1659/60
 WSRO Goodwood Ms E957: demise of the Westhampnett Union Workhouse 1836
 WSRO Goodwood Ms E4712/13: sale of the workhouse 17/8/1900
 WSRO Goodwood Ms E4711 Vestry meetings
 WSRO Goodwood Mss E1 & E2: Manorial court rolls for Boxgrove and Halnaker manors *inter alia*, 1686-1727
 WSRO MF 655: Land Tax 1780-1830 (Westhampnett parish)
 WSRO OS 25" sheet 61/7 1898 and 1912
 WSRO PAR 207/49/11: The minute book of the Westhampnett parish meetings
 WSRO MF 1484: Westhampnett Hearth Tax 1668 (microfilm)
 WSRO TD/W143: Westhampnett Tithes map and apportionment 1838 (Microfilm copy)

PRINTED AND OTHER SECONDARY WORKS

- Battie Group.** 2004. Viridor Waste Management: Westhampnett: Archaeological Evaluation Works: Specification for Trial Trenching. Unpub. Rep. 2
Barker, E. E. 1948. Sussex Anglo Saxon charters, *Sussex Archaeological Collections* (hereafter SAC) **87**, 112–63.
Beswick, M. 2001. *Brickmaking in Sussex*. Midhurst: Sussex Industrial Archaeology Society.
Bird, D. 1999. Early days at London and Richborough, *London Archaeology* **8**(12), 331–4.
 ——— 2000. The Claudian invasion campaign reconsidered, *Oxford Journal of Archaeology* **19**(1), 91–104.
 ——— 2002. The events of AD 43: further reflections, *Britannia* **33**, 257–63.
 ——— 2004. Surrey in the Roman Period: a survey of recent discoveries, in J. Cotton, G. Crocker & A. Graham (eds), *Aspects of Archaeology and History in Surrey: Towards a Research Framework for the County*. Guildford: Surrey Archaeological Society, 65–76.
Black, E. W. 1987. *The Roman Villas of South-East England*. Oxford: BAR Brit. Ser. **171**, 12.
Boyd Dawkins, W. 1864. On a Romano-British Cemetery and Roman Camp at Hardham in West Sussex, *SAC* **16**, 52–64.
Chadwick, A. M. 2006. Bronze Age burials and settlement and an Anglo-Saxon settlement at Claypit Lane, Westhampnett, West Sussex, *SAC* **144**, 7–50.

- Chevalier, R.** 1976. *Roman Roads* (tr. N. H. Field). London: Batsford.
- Cooper, The Rev T. S.** 1984. The Roman villa at Whitebeech, Chiddingfold: excavations in 1888 and subsequently, *Surrey Archaeological Collections* **75**, 58–83.
- Cunliffe, B.** 1971. Excavations at Fishbourne 1961–1969, *Rep. Res. Comm. Soc. Antiq.* **26–27**. London.
- Curwen, E.** 1913. Covered ways on the Sussex Downs, *SAC* **57**, 134–48.
- Davies, H.** 2002a. Roads from Rome, *British Archaeology* **67**, 9–12.
— — 2002b. *Roads in Roman Britain*. Stroud: Tempus.
- Down, A.** 1971. The Roman cemetery at St Pancras, in A. Down & M. Rule, *Chichester Excavations* **1**. Chichester: Chichester Excavations Committee, 53–126.
— — (ed.) 1981. Excavations at Eastgate Needlemakers. *Chichester Excavations* **5**. Chichester: Chichester Excavations Committee, 77–118.
- Fitzpatrick, A. P.** 1997. Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992. Unpub. Wessex Archaeology report.
- Fitzpatrick, A. P., Powell, A. B. & Allen, M. J.** 2008. *Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992*, vol. 1: *Late Upper Palaeolithic–Anglo-Saxon*. Salisbury: Wessex Archaeology report.
- Frere, S. & Fulford, M.** 2001. The Roman invasion of AD 43, *Britannia* **32**, 45–55.
- Fulford, M. G.** 1975. *New Forest Roman Pottery*, Oxford: BAR Brit. Ser. **17**.
- Glover, J.** 1997. *Sussex Place Names*. Newbury: Countryside Books.
- Haines, W. & Arnold, F. H.** (eds). 1880. Spershott's memoirs of Chichester (18th century), *SAC* **30**, 147–60.
- Hodder, I.** 1974. The distribution of two types of Roman-British coarse pottery in the West Sussex Region, *SAC* **112**, 86–96.
- James, A.** (ed.) 2006. The Roman station at Milland, *Past Matters, The Heritage of Chichester District* **4**.
- Kelly, S. E.** (ed.) 1998. *Anglo-Saxon Charters VI: Charters of Selsey*. Oxford: OUP.
- Kenny, J.** 2005. Roman roads, keeping on the straight and narrow, *Past Matters, The Heritage of Chichester District*, 18–21.
- Lowther, A. W. G.** 1941. A section through Stane Street near Chichester, Sussex, *SAC* **82**, 111–14.
— — 1961. Relief patterned flue tiles, *Archaeological Journal* **118**, 131–2.
- Luke, M. & Wells, J.** 2000. New evidence for the origins, development and internal morphology of the Roman roadside settlement at Alfoldean, *SAS* **138**, 75–101.
- Magilton, J.** 1996a. Roman roads in the Manhood Peninsula, Chichester, in *The Archaeology of Chichester and District 1995*. Chichester: Chichester Excavations Committee, 31–4.
— — 1996b. Chichester, the Burghal Hideage and the diversion of the River Lavant, Chichester, in *The Archaeology of Chichester and District 1996*. Chichester: Chichester Excavations Committee, 37–41.
— — in prep. The Cemetery at 69–70 East Street Chichester.
- Margary, I. D.** 1940. Excavation of the London–Lewes Roman Road at Holtye, *SAS* **81**, 43–53.
— — 1965. *Roman Ways in the Weald* (3rd impression). London: Phoenix House.
- Mawer, A. & Stenton, F. M.** 1929–30. *The Place-Names of Sussex*. Cambridge: English Place-Name Society.
- McRae, S. G. & Burnham, C. P.** 1975. The soils of the Weald, *Proceedings of the Geologists' Association* **86**, 593–610.
- Morgan, R.** 1992. *Chichester: a Documentary History*. Chichester: Phillimore.
- Morris, J.** 1976. *Domesday Book, Sussex*. Chichester: Phillimore.
- Newbury, K.** 2000. *The River Lavant* (2nd edn). Chichester: Phillimore.
- Peddie, J.** 2005. *Conquest: the Roman Invasion of Britain*. Stroud: Tempus.
- Priestley-Bell, G. & Barber, L.** 2006. (version 2 edits by G. Priestley-Bell & L. Rayner) *Archaeological Investigations on Land at Stane Street, Westhampnett, West Sussex (SU 8805 0605)*. Post-excavation and Proposal for Publication. Report, Archaeology South-East, Ditchling, 11
- Radesdale, R.** 2001. Brigantium, *The Archaeologist* **42**, 32–3.
- Roberts, M. B. & Parfitt, S. A.** 1999. *A Middle Pleistocene Hominid Site at Eartham Quarry, Boxgrove, West Sussex*. English Heritage Archaeological Report **17**.
- Rudling, D.** 2003. Roman rural settlement in Sussex: continuity and change, in D. Rudling (ed.), *The Archaeology of Sussex to AD 2000*, Bexhill-on-Sea: Heritage Marketing and Publications.
- Sauer, E.** 2002. The Roman invasion of Britain (AD 43) in imperial perspective: a response to Frere and Fulford, *Oxford Journal of Archaeology* **21**(4), 333–63.
- Soffe, G. & Johnston, D.** 1974. Route 421 and other Roman roads in south Hampshire, *Rescue Archaeology in Hampshire* **2**, 99–120.
- Taylor, J.** 2006. Under the factory floor... excavations at the former Shippams Factory and Shippams Sports and Social Club, Chichester, in A. James (ed.) *Past Matters* **4**, 8–13.
- Salzman, L. F.** 1953. *Victoria History of the County of Sussex*, vol. 4: *Rape of Chichester*. London: Institute of Historical Research.
- Welch, M. G.** 1983. *Early Anglo-Saxon Sussex*. Oxford: BAR British Series **112**(i).
- Wessex Archaeology** 2006. Alfoldean, Slinfold, West Sussex: Archaeological Evaluation and Assessment of Results. Unpub Wess. Arch. rep.
- West Yorkshire Archaeology Service** 2001. *A New Link to the Past: the Archaeological Landscape of the M1–A1 Link Road* (eds I. Roberts, A. Burgess & D. Berg). Leeds: Yorkshire Archaeology.
- White, L.** 1966. *Medieval Technology and Social Change*. Oxford: Clarendon Press.
- Winbolt, S. E.** 1935. The remains of the Roman Bridge over the Arun at Alfoldean, *SAC* **76**, 183–92.
— — 1936. *With a Spade on Stane Street*. London: Methuen.
- Winchester Museum Service, Archaeology Section** 1998. *Archaeology in Hampshire: Annual Report* **75**.