

# Archaeological investigations of the Devil's Ditch at Windmill Park, Stane Street, Halnaker, West Sussex

By Anna Doherty and Nick Garland

*A small excavation was carried out on a section of "the Devil's Ditch" at Halnaker. This ditch-and-bank entrenchment has generally been interpreted as part of a series of dykes enclosing a c. 1st century BC territorial oppidum at the western edge of the Sussex coastal plain. However, previous campaigns of excavation have produced ambiguous dating evidence, leading to some suggestions that the monument is actually of medieval date. Although there were some indications of Roman and/or medieval re-cutting of the ditch, OSL dating of the primary fills produced date ranges falling entirely within the 1st millennium BC. The most significant finding is that the earliest fills of the ditch had started to accumulate by c.80 BC at the latest. This evidence essentially disproves the theory that the ditch was first established as boundary to a medieval deer park but it also poses questions about whether the entrenchment could have been founded before the Late Iron Age.*

## INTRODUCTION

Archaeology South-East (UCL Institute of Archaeology) was commissioned by Gifford (now Ramboll UK) on behalf of their client Kingmere Ltd to undertake an archaeological excavation at Windmill Park, Stane Street, Halnaker, West Sussex in May and June 2010 (NGR 491320, 108500; Fig. 1). The site is located on the northern outskirts of the hamlet of Halnaker at the intersection between Stane Street (the A285), the Roman road between Chichester and London, and 'the Devil's Ditch', a Scheduled Monument comprising a ditch and bank entrenchment running east-west along the base of the Downs. The monument is no longer extant as an earthwork within the bounds of the current site, so Scheduled Monument Consent was granted for a housing development, with the condition that an archaeological excavation through the Devil's Ditch be conducted prior to construction work.

## GEOLOGY AND TOPOGRAPHY

The superficial geology is head gravel, comprising clays and gravel (British Geological Survey 2011). The surrounding topography is fairly level, but dips to the south towards the rich brickearth soils c. 2km away and to the north up to Halnaker Hill, and the chalk downland of the South Downs beyond.

## BACKGROUND

Numerous campaigns of survey and excavation carried out on the Devil's Ditch during the 20th century have, broadly speaking, produced two conflicting interpretations. Although relatively little stratified archaeology of pre-Roman conquest date has been found in Chichester, coins and other evidence suggest high-status Late Iron Age activity in the environs of the subsequent Roman town of *Noviomagus Reginorum*. The area enclosed by the Chichester Entrenchments (including the Devil's Ditch) is rather larger and more dispersed than other proto-towns in southern Britain, but it has been argued that this zone contains all the elements of a territorial *oppidum* (Davenport 2003, 105–6). Individual sherds of later Iron Age pottery have previously been recovered in excavations through the ditch at Goodwood Park (Bradley 1971). A much larger assemblage of pottery dating to around AD 50–70 was found in secondary fills of the ditch terminus, excavated at Boxgrove Quarry, again suggesting that the entrenchments were constructed before the Roman conquest (Bedwin and Orton 1984, 69).

In contrast, John Holmes concluded that a stretch of the ditch adjacent to Stane Street was stratigraphically later than a drainage ditch associated with the Roman road. He postulated that it formed the boundary of a series of medieval deer parks, and was used by King Stephen to

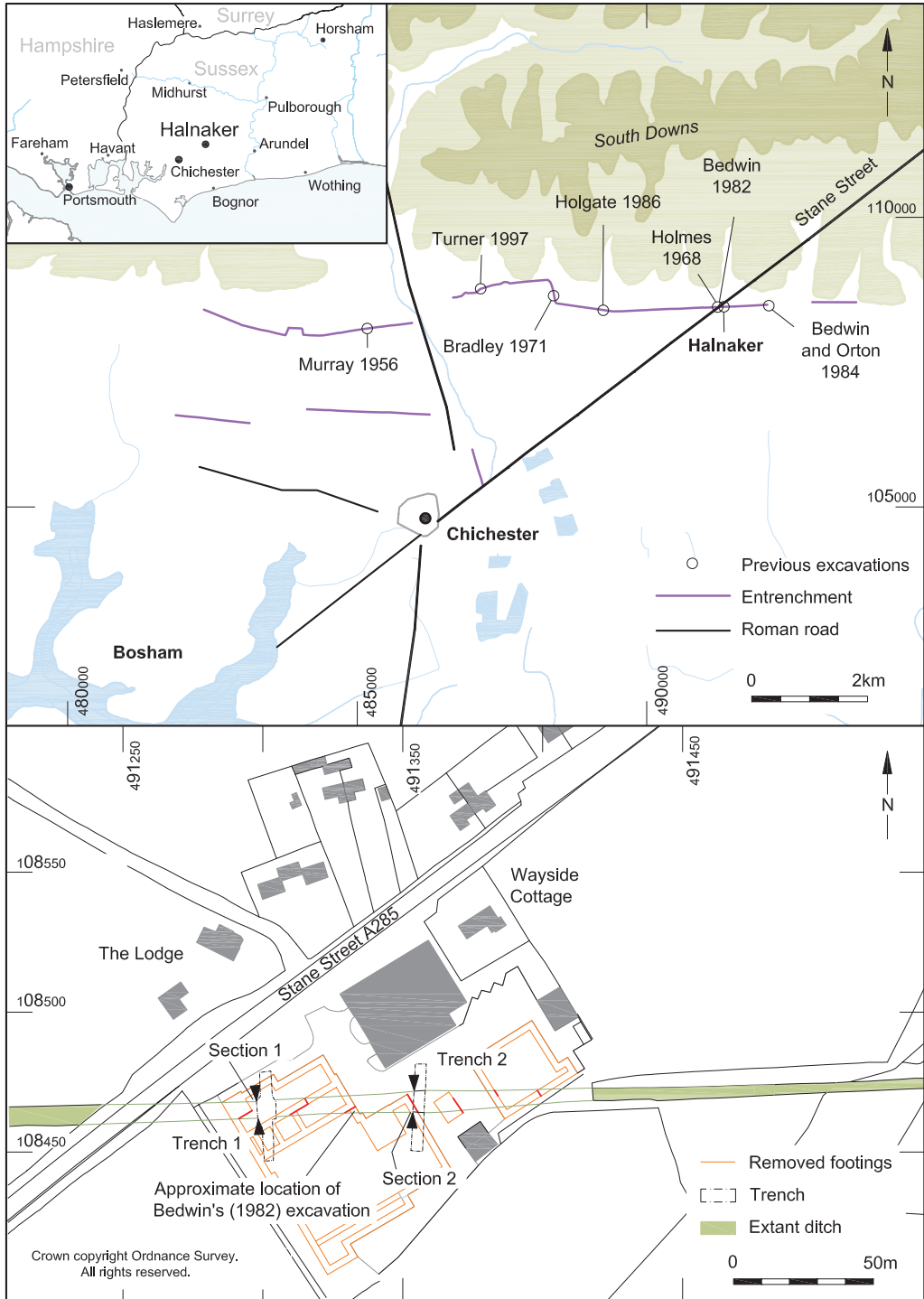


Fig. 1. Site location.

enclose the Forest of Chichester (Holmes 1968, 65–71). This view was strongly critiqued at the time by Richard Bradley (1968), who questioned both Holmes's methods and his interpretations. However, some support for a medieval origin was provided by Owen Bedwin's excavations on a stretch of the ditch within the current development area (Bedwin 1982). Here, medieval pottery was recovered from layers only 0.2m from the base of the ditch.

## RESULTS

The main aim of the work was therefore to characterise the ditch and to provide dating evidence in order to reevaluate these interpretations. The course of the ditch was uncovered in an initial watching brief, and two interventions were subsequently hand-excavated in targeted trenches (1 and 2), located approximately 25m to the east and west of Bedwin's excavation (1982).

In both trenches, the ditch had a generally similar profile of 6–7m wide by just less than 2.5m deep and was broadly V-shaped in section (Fig. 2). Bedwin (1982, 39) noted that a remnant of a bank survived to the south of the ditch in this area; however, no trace of it was recorded in trenches 1 or 2. As in previous excavations, finds were absent from primary fills. A programme of Optical Stimulated Luminescence (OSL) dating was carried out on samples from five such deposits, interpreted as likely to have accumulated through rapid silting or erosion soon after the ditch was cut (Table 1). Two of the samples (X4001 and X4004) were considered unreliable, but the remaining three were consistent, each giving a date of around 500–400 BC ( $\pm 410$ –530 years).

Interpretation of the mid and upper fills of the ditch is more problematic. There are few finds, meaning that residuality may pose a significant problem and, although it seems likely that there were one or more recuts, these could be interpreted as occurring in different locations on the section. It is clear that there are significant differences in the ditch profiles uncovered in the two excavated trenches. In Trench 1, the initial silting layers accumulated to a depth of c. 0.75m, but in Trench 2 a distinctly different deposit was noted c. 0.12m from the base. This fill, which consisted of sub-rounded stones set in clay matrix, varied significantly from the surrounding natural geology and may represent

Table 1. OSL results.

Lab. code	Water content (%)	Palaeodose (Gy)	Dose rate (Gy/ka)	Age estimate (years before 2010)
X4001	12	$5.70 \pm 1.99$	$1.73 \pm 0.08$	$(3310 \pm 1160)$
X4002	13	$4.46 \pm 0.69$	$1.78 \pm 0.09$	$2500 \pm 410$
X4003	13	$4.38 \pm 0.91$	$1.77 \pm 0.08$	$2480 \pm 530$
X4004	18	$15.54 \pm 6.07$	$2.01 \pm 0.09$	$(7730 \pm 3050)$
X4005	19	$4.87 \pm 1.01$	$1.99 \pm 0.08$	$2440 \pm 520$

slumped material originally brought in for the construction of the bank (J. Kenny, pers. comm.). In both trenches, mid fills of the ditch were either undated or contained very small quantities of Roman pottery, probably dating to the 1st or 2nd centuries. These fills could therefore represent an unbroken sequence of accumulation overlying Iron Age deposits.

The profile of upper fills appears similar in both trenches, and post-Roman material began to appear at a similar point on both sections, c. 1.5m from the base of the ditch. Whilst the significantly later date of artefacts might suggest a recut at this point, the basal profile of these fills is rather flat. It is therefore possible that the Roman material from the underlying fills was redeposited and should be interpreted as residual, and that the ditch was recut to almost its original depth in the post-Roman period. This interpretation would accord with Bedwin's findings (1982). The finds from the upper part of the ditch in Trench 1, comprising a moderate assemblage of medieval pottery (c. AD 1250–1350/1400), are comparable to those found throughout most of the sequence recorded by Bedwin. However, it should be noted that Bedwin's illustrated section (1982, fig. 2) is significantly shallower than that in Trench 1, and has a much flatter basal profile, suggesting that it was not fully excavated into the original Iron Age deposits. The sequence in Trench 1 was cut by a wall foundation trench, probably belonging to a building first shown on the 1875 Ordnance Survey. By contrast, finds from upper deposits in Trench 2 are wholly post-medieval (c. 1600–1800). This area of Section 2 also revealed evidence for a post-medieval trackway which corresponds with a feature depicted on the 1897 Ordnance Survey.

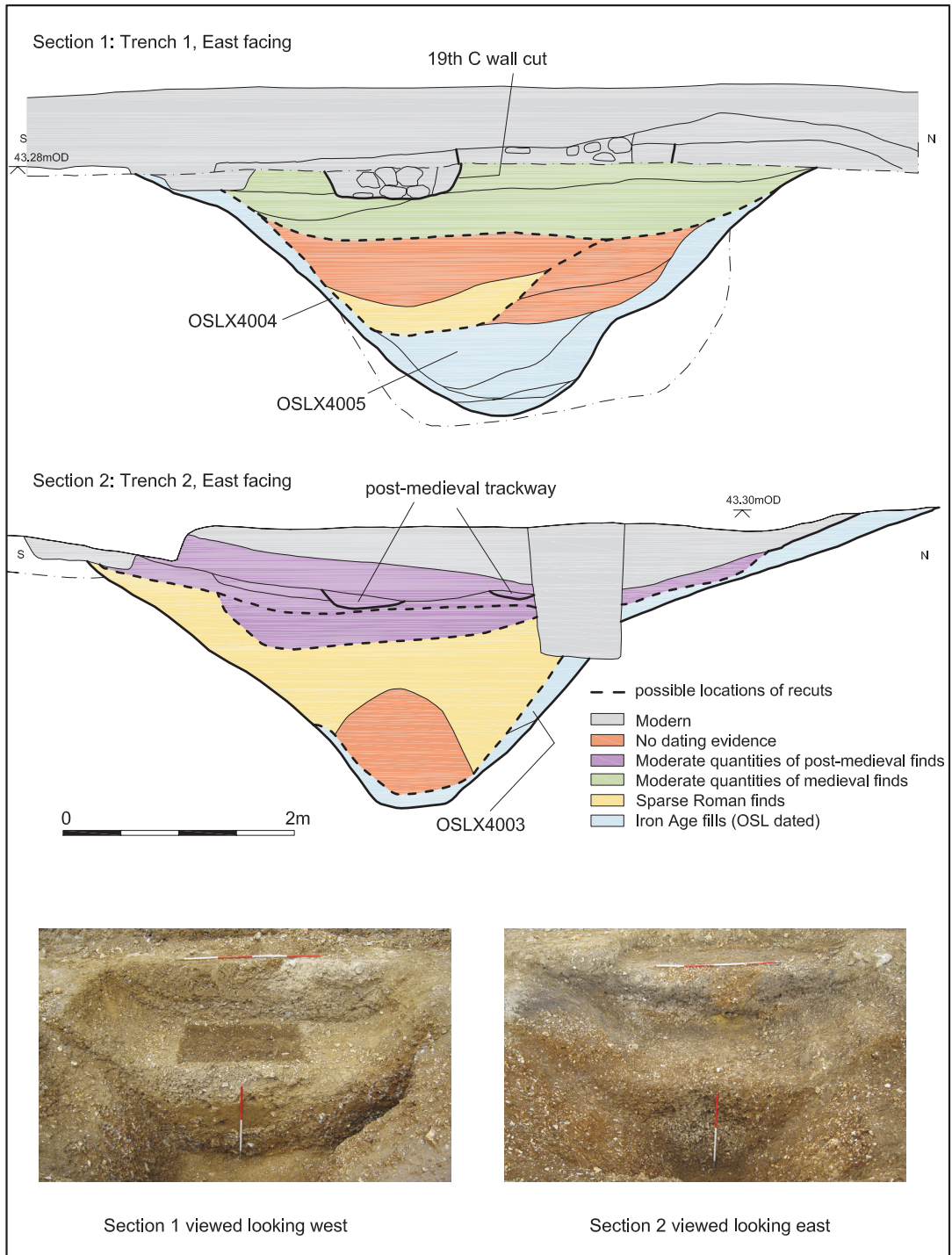


Fig. 2. Excavated sections.

## DISCUSSION

The OSL results provide compelling evidence that the Devil's Ditch was initially constructed in the 1st millennium BC. Whilst the broad error margins of samples X4003 and X4005 allow for a very early Roman date of initial filling, sample X4002 suggests that the ditch was in place by 80 BC at the latest. Seen in the context of other evidence for the existence of elite Gallo-British populations in the Chichester area, this date is potentially quite significant. Coin data suggest that high-status activity peaked in the middle and later 1st century BC (De Jersey 1999, 203). The Aylesford-Swarling cremation cemetery at Westhampnett is marginally earlier (c. 90–50 BC; Fitzpatrick 1997) but overall, evidence of this type seems to be confined to the 1st century BC. Assuming that the Chichester Entrenchments were first excavated with the purpose of enclosing a territorial *oppidum*, the *terminus ante quem* provided by sample X4002 suggests that the process of enclosure occurred very early in its development.

However, it should be remembered that the dates provided by the OSL programme are very broad (c. 900–80 BC), and the current excavation provides no *clear* indication that the Entrenchments were founded near the end of this range. Some possible evidence of Middle Iron Age dating has been recorded elsewhere in the Entrenchments, including a few sherds of flint-tempered pottery from bank construction layers associated with the Devil's Ditch at Goodwood Park, and from bank material in an intervention through another part of the Entrenchments south of West Lavant House. This material included one vessel described at the time by C. F. C. Hawkes as a 'saucepan pot' (Murray 1956, 143). It is difficult to verify this identification from the published illustration and, given the small quantities of pottery involved, there could well be issues of residuality. However, the very limited quantity of pottery recovered from layers associated with construction or early use of the Entrenchments

generally appears more characteristic of the Middle Iron Age than the Late Iron Age. It is known that a concerted campaign of enclosure and settlement took place on the western side of the Sussex Coastal Plain during the Middle Iron Age after a period of decline at the end of the Bronze Age (Hamilton 2003, 77). The results of the current excavation leave open the possibility that the Devil's Ditch and other parts of the Entrenchments were associated with this activity.

Although Roman, medieval and post-medieval finds were recovered from the ditch, it is difficult to interpret the precise sequence and chronology of fills and recuts. The excavation results may be consistent with the interpretation that the ditch was recut in the medieval period; however, medieval pottery was found only in upper fills in the westernmost intervention through the ditch, perhaps indicating that the boundary survived to a later date further to the east. This evidence is supported by late 18th century historic maps, which depict the ditch as partly backfilled on the western side of the site.

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## REFERENCES

**Bedwin, O.** 1982. Excavations at the Devil's Ditch, Boxgrove, West Sussex, 1981, *Sussex Archaeological Collections* (hereafter SAC) **120**, 37–43.  
**Bedwin, O.** and **Orton, C.** 1984. The excavation of the

Eastern Terminal of The Devil's Ditch (Chichester Dykes), Boxgrove, West Sussex 1982, SAC **122**, 63–74.

**Bradley, R.** 1969. The Chichester Dykes – a dissenting judgement, SAC **107**, 137–40.  
 — — 1971, in B. Cunliffe (ed.), *Excavations at Fishbourne, 1961–1969*, Issue 26, Volume 1.

**Davenport, C.** 2003. The late pre-Roman Iron age of the West Sussex coastal plain: continuity or change? in D. Rudling (ed.), *The Archaeology of Sussex to AD 2000*. Heritage: King's Lynn, 101–10.

**De Jersey, P.** 1999. Exotic coinage in Britain, *Oxford Journal of Archaeology* **18** (2), 189–216.

**Fitzpatrick, A. P.** *Archaeological excavations on the route of the A27 Westhampnett Bypass, West Sussex, 1992. Volume 2: the cemeteries*. Wessex Archaeology Report No 12.

**Garland, N.** 2011. Archaeological investigations at Windmill Park, Halnaker, West Sussex. Post-Excavation Assessment and Project Design for Publication. Unpub. ASE report no. 2010229.

— — 2012. Archaeological investigations of the Devil's Ditch at Windmill Park, Stane Street, Halnaker, West Sussex. Unpub. ASE archive report no. 2012002.

**Hamilton, S.** 2003. Sussex not Wessex: a regional perspective on Southern Britain c.120–200 BC, in D. Rudling (ed), *The Archaeology of Sussex to AD2000*. Heritage: King's Lynn, 69–88.

**Holmes, J.** 1968. The Chichester Dykes, *SAC* **106**, 63–72.

**Murray, K. M. E.** 1956. 'The Chichester entrenchments', in A. E. Wilson, *The beginnings of Roman Chichester*, *SAC* **94**, 139–43.

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