Neolithic pits, a Middle–Late Bronze Age agricultural landscape and a deer park: Beddington Sewage Farm 1992–2009

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Introduction

Between 1992 and 2009, Wessex Archaeology carried out a programme of archaeological evaluation, excavation and watching briefs at Beddington Sewage Farm in the London Borough of Sutton (Figs 1 & 2).[1] The works covered approximately 100 hectares and were undertaken in advance of gravel extraction, subsequent landfill and restoration.

The site lies within a broad loop of the River Wandle, which flows west from Croydon, through Beddington, before turning north at Wallington and eventually joining the Thames at Wandsworth. Ground levels within the site average around 30m OD. The underlying geology is London Clay, overlain by river terrace deposits of the Hackney Gravel Member.[2]

Despite widespread and occasionally severe truncation resulting from development of the sewage works, archaeological remains from several phases of activity survived, particularly across the central and southern parts of the site. These included features associated with later Bronze Age pits and ditches uncovered during earlier excavations.[3]

A more comprehensive report on the investigations is to be published elsewhere.[4] The archive has been deposited at the Museum of London Archaeological Archive (under code BDN92).

Earliest evidence: late Pleistocene/ early Holocene palaeochannels

The earliest features were a series of meandering palaeochannels, up to 10m wide, less than 0.6m deep, and typically infilled with silty clays and bands, or lenses, of tufa containing abundant freshwater and in-washed terrestrial land molluscs. The channels probably formed part of a braided river system associated with the late Pleistocene and early Holocene development of the River Wandle, and are likely to have silted up by, or during, the Neolithic period.

The channel deposits yielded no evidence of human activity, although many of the Bronze Age features appear to respect them, suggesting later re-activation or an area of wet/ marshy ground persisting long after the channels had ceased to be active.

Neolithic pit-digging and deliberate deposition

Forty-four pieces of worked flint, mostly in very fresh condition and with some re-fitting pieces, were found in a tree-throw hole (4645; Fig 6A). The material is Early Neolithic knapping debris from blade/bladelet production and probably represents the opportunistic use of the natural hollow as a temporary working shelter or to deposit waste. Exploitation of wind-thrown trees in this manner is well-documented, although the practice seems to have declined during the later Neolithic period.[5] Small quantities of probable Early Neolithic pottery and flintwork were also found residually in several later features.

The site contained at least 11 small Middle Neolithic pits (up to 1m wide and 0.4m deep) (Fig 5), from which around 2kg of Peterborough Ware (Ebbsfleet and, predominantly, Mortlake style pottery (Fig 7), worked flint (115

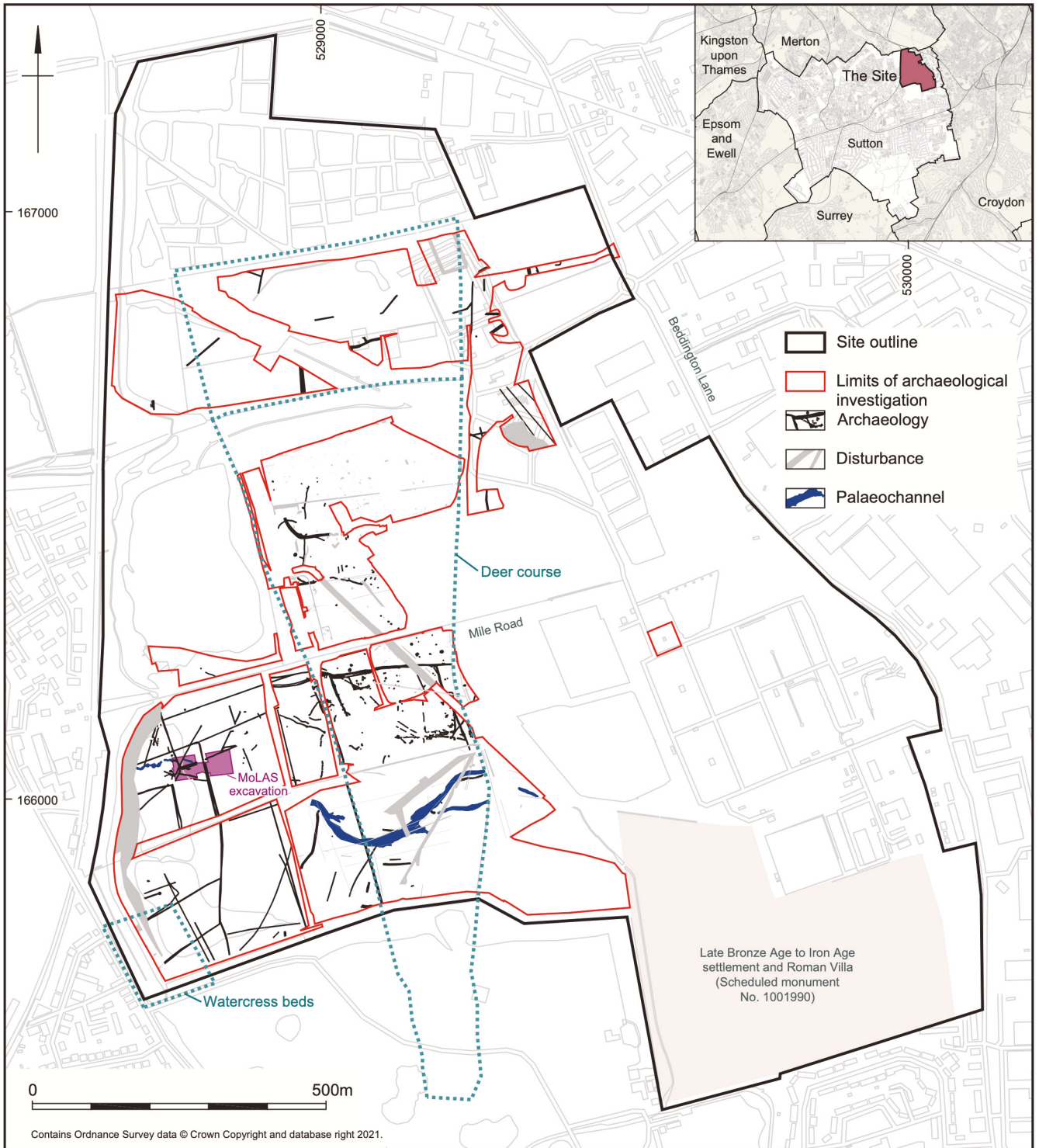Fig 1: excavations in progress; south-east facing view across corner of a later Bronze Age enclosure (6101)

Fig 2: site location plan

pieces), burnt flint, animal bone and burnt hazelnut shells were recovered. A few other pits and tree-throw holes produced less diagnostic, but nevertheless potentially Neolithic, pottery and worked flint, albeit in much smaller quantities. Such features are relatively typical of the period and are often thought to have been dug specifically to receive collections of artefacts and other debris generated by short-lived episodes of occupation.[6]

There is little indication of formality or 'structuration' in the depositional practices at Beddington but a 'mace-head', made on a naturally holed flint nodule, from one example (5021) is unusual and may have been carefully selected for deposition (Fig 3).

The Neolithic evidence from Beddington provides a notable addition to that from the Greater London area where, in contrast to

Fig 3: a Neolithic flint mace-head from a pit (5021)

Fig 4: a near complete cattle skull and split-oak plank in the base of a Bronze Age waterhole (11316)

charcoal were radiocarbon dated to the Middle–Late Bronze Age. The remains probably represent those of a burial made within an organic container with a secondary deposit of pyre debris. Traces of later Bronze Age funerary activity in otherwise largely agricultural landscapes are not unusual, perhaps reflecting beliefs centred around fertility, renewal and death, and the importance of productive land to the farming communities of the period.[8]

Similar later Bronze Age organised landscapes have been widely recorded across the Thames terraces and the southern English lowlands.[9] The remains at Beddington were relatively poorly preserved and fragmentary; many of the ditches were shallow and intermittent due to truncation and, consequently, they probably represent only the remnants of a more extensive system of land divisions.

Truncation could also account for the absence of remains relating to domestic structures, although the other features and finds distribution give no obvious indication of any *foci* of occupation. Later in the period, however, the land may have been farmed by the inhabitants of the Late Bronze Age/Early Iron Age enclosed settlement (list entry 1001990) south-east of the investigated area.

The widespread appearance of field systems in the later Bronze Age

the terrace gravels of the Upper and Middle Thames, remains of this date are recorded comparatively infrequently.

A Middle to Late Bronze Age agricultural landscape

Ditched fields, enclosures and droveways began to be laid out across the site from the Middle Bronze Age (Figs 1 & 6). Although subsequently extended and re-organised into the latter stages of the period, the precise sequence could not be established due to the (typically) small quantities of datable finds from the ditches and difficulties distinguishing stratigraphic relationships. Three watering holes and several small pits were also interspersed among the ditches.

Later Bronze Age flintwork, small quantities of animal bone (mostly from cattle) and 1.2kg of Deverel-Rimbury and post-Deverel-Rimbury pottery were recovered from these features. Other finds included a fragment of quern (pit 5364), a piece of sawn deer antler (waterhole 11158) and fragments of wood (pits 6778 and 5823) crudely worked into points, probably to form stakes. A poorly preserved split-oak plank was also found against the side of a waterhole (11316), at the base of which was a near complete cattle skull, which may have been deliberately placed – perhaps to 'close' the feature symbolically (Fig 4). Such activity seems

to have been relatively common in the later Bronze Age and Iron Age, as evidenced, for example, by depositions in pits 4km away at Carshalton.[7]

Cremated human bone (500g) from a single adult – probably female – was recovered from a pit (6043) near one of the droveways (Fig 6B). The pit was 0.75m in diameter and 0.35m deep, and its fill was clearly very rich in fuel ash/charcoal. The cremated bone and

Fig 5: south-facing section through Middle Neolithic pit (11157) and Bronze Age waterhole (11158). Scale: 2m
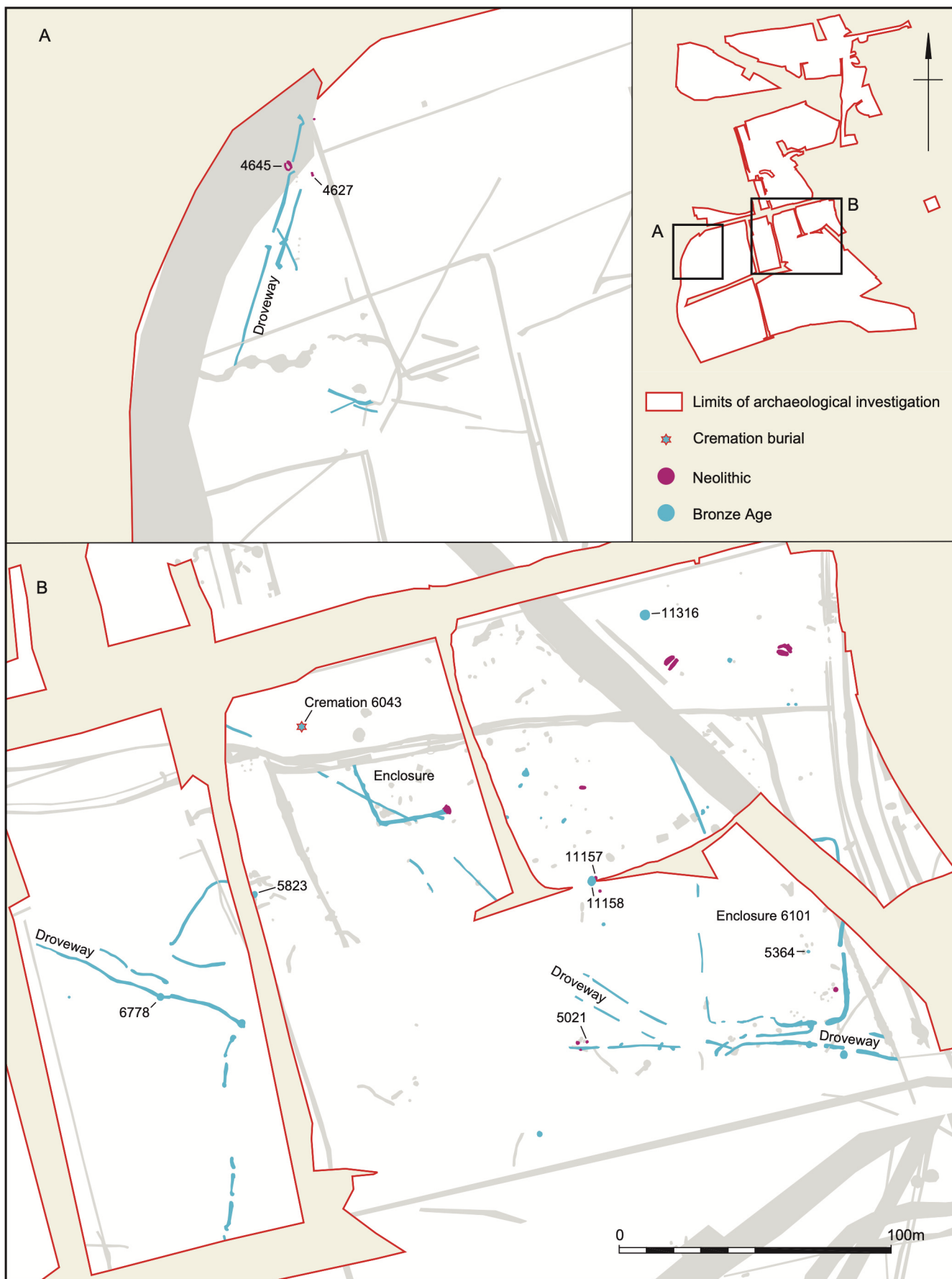
Fig 6: plan of Neolithic and Bronze Age features

marks a distinct change in the mode and organisation of production. As with other contemporary sites, the evidence from Beddington seems consistent with a largely pastoral economy, probably with an emphasis on cattle rearing; the droveways presumably linked the fields, settlements and the river, and were likely used to control the

movement of animals between enclosures used for sorting, grazing and penning. The intensification of livestock rearing at this time has been closely linked with the emergence of increasingly stratified/hierarchical societies and the production, exchange and deposition of metalwork.[10]

Consequently, later Bronze Age Beddington can be viewed as part of a complex and evolving landscape, in which the creation of agricultural surpluses was a key element in the exchange of commodities – particularly metalwork, as evidenced by votive deposits in the River Wandle – labour, alliances and other reciprocal obligations. By the Late Bronze Age, the ringwork enclosure at Carshalton (scheduled monument; list entry 1003313) may have played a major role in mediating these socio-economic interactions.

Iron Age, Romano-British and Saxon: a hiatus in activity?

Except for a few residual sherds of Iron Age and Romano-British pottery and a fragment of *tegula*, the investigations produced no evidence of activity during these periods. The lack of conclusively Iron Age remains was unexpected as the nearby enclosed settlement (list entry 1001990) was occupied well into this period.[11] Nevertheless, the results from Beddington seem broadly consistent with patterns across Greater London where, there is a general decline in conspicuous remains, at least from the earlier part of the Iron Age.[12]

The adjacent scheduled monument also includes the remains of a Roman villa, discovered during ploughing in 1736 and partly excavated throughout the 19th and 20th centuries.[13] The survival of earlier and later features and the paucity of residual finds indicates that truncation was not responsible for the surprising absence of remains contemporary with the villa. The area may simply have been used in ways unlikely to leave any archaeological signature, perhaps as meadow or pasture, given the low-lying nature of the site.

Medieval and earlier post-medieval: Beddington Deer Park and the Carew Estate

From the mid-14th century, the site probably formed part of the landholdings of the Carew family, who may have constructed a new house or taken possession of a pre-existing manor house in the vicinity of the church.[14] The house was probably rebuilt *c.* 1550, and thereafter became known as 'Beddington Place'. The great hall of this house (Grade I listed; list entry no. 1065672) still stands to the south of the site, amid the vestiges of its estate ('Beddington Park').

The Carews established a deer park at Beddington, possibly after a licence of free warren was obtained in the 1370s.[15] There is, however, no definite reference to the park until the early 16th century; certainly, Henry VIII took sport there in the park until the early 1530s.[16] Although little trace of the deer park remained by the 20th century, hints of its former presence were detected during the investigations.

By the Tudor period, the deer park probably encompassed the land between London Road to the west, Wallington and Beddington Lane to the east, Mitcham Common to the north and Croydon Road to the south, and thus included the entire site. The extent of the early medieval deer park is uncertain, but none of the ditches found during the excavations seems large enough to have formed part of a park pale, implying that the investigated area was also wholly within its bounds.

A group of ditches in the centre of the site, between 0.35m and 1.7m wide and up to 0.35m deep, yielded pottery (32 sherds, 634g) of exclusively 12th–14th-century date (Fig 8). These may, therefore, have pre-dated the deer park, perhaps being associated with the manor of Huscarls, which was apparently subsumed by the Carew estate and merged with Beddington manor in the 14th century.[17]

The medieval ditches, and possibly other undated examples, could,

Fig 7: Peterborough Ware (Mortlake style) pottery from pit (4627)

however, have been related to the deer park, which probably contained numerous internal boundaries. These may have served a variety of purposes, such as to form stock pens or to enclose structures or areas set aside for economically productive activities.

Others could have bounded stands of trees used as coppices or to provide cover for prey animals and pannage for boar; Rocque's map of *c.* 1760 depicts several wooded areas, probably established long before, while numerous tree-throw holes uncovered by the excavations perhaps derived from trees that stood within the deer park. Some field boundaries marked on 19th-century maps, along with corresponding ditches uncovered during the excavations (Fig 8), could also represent fossilised components of the deer park. Notably, Phillips has suggested that a broad, funnel-shaped arrangement of field boundaries shown on the Beddington and Bandon enclosure map of 1820, may have preserved the footprint of a deer course mentioned in documentary sources (Fig 2).[18]

Deer courses, very few examples of which survive, were essentially paddocks used as a formalised venue for coursing – the pursuit of the quarry with hounds. They were typically 'about a mile long and a quarter mile wide', defined either by walls, a pale or hedgerows, with pens at the start
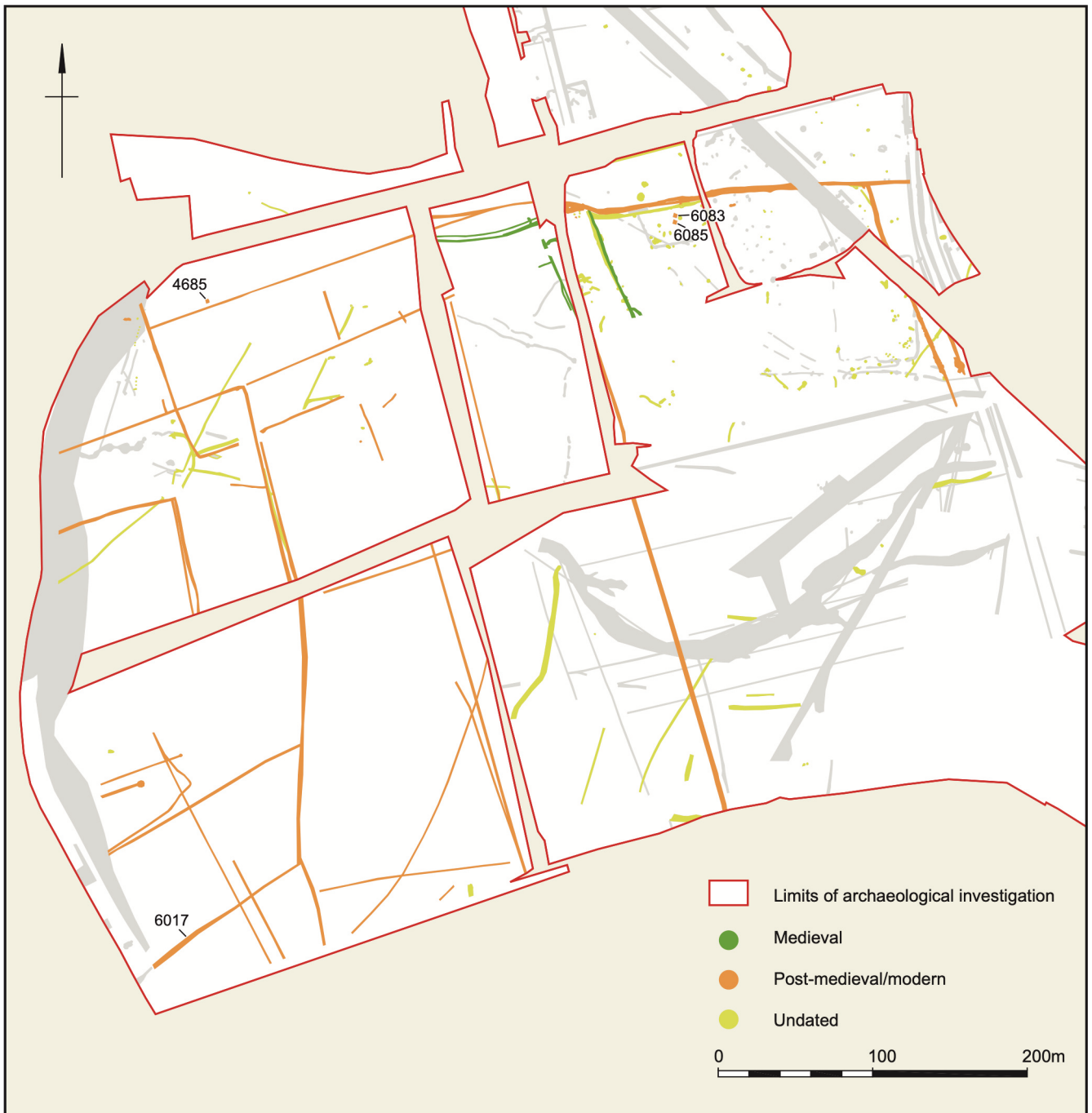
Fig 8: plan of medieval and post-medieval features

and a large ditch at the broadest, far end.[19] The land divisions highlighted by Phillips were later removed piecemeal, although some were identifiable as infilled ditches and others were extant at the time of the excavations. While no physical remains of the putative deer course boundaries were apparent, these could have been removed by the cutting of field boundary ditches along their length.

The partial, articulated remains of two adult dogs and two cats were found in a 1.6m wide and 0.1m deep, square, flat-bottomed pit (4685; Fig 8). Although the feature was inconclusively

dated, the dogs might have been working animals associated with the estate. Too small to have been used for coursing or as the instrument of attack (femur measurements indicate shoulder heights of between 0.35m and 0.55m), they could have been employed to track or flush out prey animals, or to control vermin. Alternatively, they may have been companion animals or strays.

A large quantity of bone (355 pieces, 4449g) from fallow deer – a species introduced to Britain by the Normans for the sole purpose of hunting[20] – was found in a 1.8m wide, square pit (6085; Fig 8). This represents

the remains of at least seven animals, although this is probably a gross under-estimate given the overall number of antler fragments, some roughly broken apart or sawn into pieces.

Whether killed for sport, the table, or to control the population of the deer park, deer bone found in association with 17th-/18th-century pottery places the infilling of the pit around, or a little before its decline (see below). The partial remains of the deer had also been dumped with numerous pieces of ceramic building material (mostly post-medieval CBM) which, together with material from a similar pit nearby

(6083), included four medieval floor tiles, two of which are decorated.

Over 30 fragments of dressed stone – pieces of a mullion and sill made from light greenish Caen stone – were recovered from a 19th-century ditch (6017) in the south-western corner of the site (Fig 8). This material evidently derived from a building of some status (as, perhaps, did the floor tiles from pits 6083 and 6085), of which no other trace was uncovered. This might have been the manorial residence replaced by Beddington Place, or another structure such as a hunting lodge, a demolished section of the main house or one of its grander ancillary buildings.

Later post-medieval to modern use
Large parts of Beddington deer park had been enclosed for agricultural purposes by the time Rocque produced his map of *c.* 1760. Whether this was instigated by economic necessity, the declining popularity of earlier hunting practices or some other factor(s) is unclear. Due to its rather stylised representation, the land divisions shown on Rocque's map cannot be closely related to any of the features on the site. However, numerous ditches correspond with field boundaries shown on the 1820 enclosure map and other, later, cartographic sources (Fig 8).

The land was transformed again in the mid–late 19th century, when the Carew estate was sold off and broken up. This was followed by the establishment of the Beddington Sewage Farm, which was necessitated by increasing requirements for public sanitation by the steadily urbanised and growing local population.

Other parts of the former estate, away from the excavated areas, were used for the construction of houses and the London, Brighton and South Coast Railway line. A network of ditches in the low-lying south-western corner of the site seem to have been related to other forms of activity at this time; these can be roughly correlated with watercress beds shown on OS mapping from 1896 (Fig 2). Watercress cultivation was an important industry in the Wandle valley, although this reputedly collapsed following an outbreak of typhoid in the 1930s, which was erroneously linked with the watercress beds.

Conclusions
The investigations revealed how the landscape at Beddington developed, was used and, at times, underwent considerable change, perhaps from the end of the Pleistocene through to the 20th century. Recent mineral extraction has once again dramatically altered the site – already an important wildlife habitat, the former sewage works and quarry workings are to become a major urban nature reserve and, doubtlessly, a much-valued public amenity. Thus, the character of the site will be far removed from that of its past – as a landscape set aside for the enjoyment of the privileged few or, indeed, before that when it formed the backdrop of a Roman villa complex and, earlier still, when the land was farmed and inhabited by prehistoric communities.

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13. *Op cit* fn 11.

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15. *Ibid.*; H E Malden, 'Parishes: Beddington', in H E Malden (ed) *A History of the County of Surrey: Volume 4* Victoria County History (1912) 168–78.

16. J Gairdner & R H Brodie (eds) *Letters and Papers, Foreign and Domestic, Henry VIII, Vol 14 pt 1, January–July 1539* (1834) iii.

17. Malden, *op cit* fn 15.

18. *Op cit* fn 14.

19. A J de Belin *Transitional Hunting Landscapes: Deer Hunting and Foxhunting in Northamptonshire, 1600–1850* University of Leicester PhD thesis (2010) 58–9.

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