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AN IRON AGE SITE AT HARTSDOWN TECHNOLOGY COLLEGE,  
MARGATE, KENT

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# **AN IRON AGE SITE AT HARTSDOWN TECHNOLOGY COLLEGE, MARGATE, KENT**

Dr Rhodri Gardner and Dr Catriona Gibson

with contributions by Ian Baxter, Nina Crummy, Val Fryer, Dr Jonathan Last, Tom McDonald and Dr Tony Waldron

Illustrations by Amy Goldsmith and Donna Cameron

## **Abstract**

*During February 2001 an archaeological excavation was carried out by Archaeological Solutions (previously Hertfordshire Archaeological Trust) on land at Hartsdown Technology College, George V Avenue, Margate, Kent (NGR TR 3450 6985). The previous evaluation on this part of the site had revealed the presence of two large enclosure ditches on differing alignments, dating to the Late Bronze/Early Iron Age. One of these was associated with a crouched inhumation burial. The excavation provided further evidence of the Iron Age ditched enclosures and demonstrated that the burial was actually placed in a pit that cut the enclosure ditch. A pit within the enclosure contained a large quantity of material culture, including three copper alloy objects and a semi-complete pot. The evidence suggests the presence of two Iron Age field enclosures, probably related to pastoral activities. These features were part of a busy late prehistoric domestic, economic and ritual landscape, as indicated by surrounding cropmarks.*

## **Introduction**

Excavations at Hartsdown Technology College, Margate by Archaeological Solutions (previously HAT) revealed evidence of a single period Early Iron Age site, comprising two ditched enclosures, a possible ritual deposition in a pit and a crouched inhumation burial in a pit cutting one of the enclosure ditches. The investigation was undertaken in advance of plans to construct a new college Sports Hall and Science Block.

## **Site description and geological background**

The site lies within the grounds of Hartsdown Technology College, located on George V Avenue, Margate, and approximately 1 km to the south-west of the town centre (Fig. 1). The areas proposed for development of new college facilities lie adjacent to the school buildings and are at present mainly grassed as part of the school playing fields. The site is located on relatively flat ground c. 20 m AOD, lying less than 1.5 km from the present north Kent coastline, and overlooks a shallow valley to the south-east, while the land rises to an elongated hill at a height of c. 25m AOD to the south-west. Previous borehole investigations on the site (IGES 2000) suggested that shallow topsoil overlies a thick deposit of 'head brickearth' which, in turn, overlies Cretaceous chalk bedrock. Some areas of recent made ground were recorded in parts of the site. The soils in this area tend to be well drained calcareous fine silty soils, more shallow in the area of the valley sides where the site is situated than in the valley bottoms (Soil Survey of England & Wales 1983).

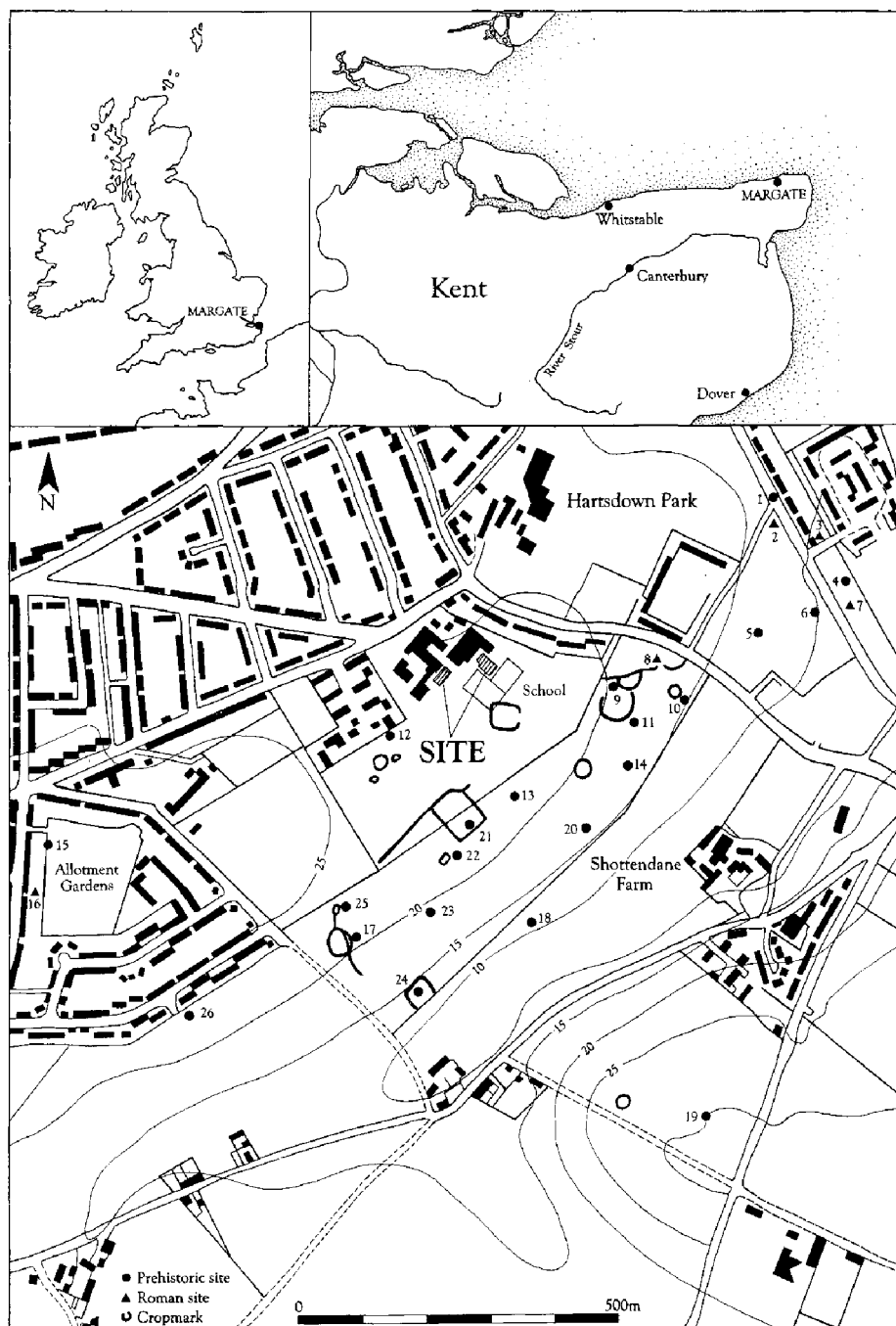


Fig. 1. Site location

### Key to Fig. 1

1. Finds scatters including Mesolithic flint cores and macehead, Neolithic flints, and Iron Age pottery; 2. Roman finds scatters including coins, pottery vessels and ornaments; 3. Roman villa with frescoes; 4. Late Iron Age urn; 5. Possible Bronze Age (hereafter BA) enclosure; 6. BA barrows identified as cropmarks; 7. Roman pottery production site; 8. Roman trackway; 9. IA Interrupted ditched enclosure; 10. LBA-EIA Small sub-circular enclosure; 11. BA ring ditch and interrupted ditch system; 12. Cropmarks of BA ring ditches; 13. IA rectangular enclosure; 14. Roman enclosure; 15. BA ring ditches; 16. Roman remains including pottery; 17. Prehistoric cropmarks, including ditched enclosures, with internal post holes, ditches & pits; 18. BA ring ditch, probably barrow; 19. BA barrows; 20. E-MIA structure; 21. E-MIA enclosure with causewayed entrance; 22. small E-MIA enclosure; 23. E-MIA ditches and post holes; 24. LIA rectangular enclosure; 25. Possible BA ?flint mining; 26. MBA ring ditch.

Throughout prehistory and into the post-medieval period the character of occupation on the Isle of Thanet has been inextricably linked to the fortunes of the Wantsum Channel, which so dominated the local topography. Evidence for the initial inundation of the channel is sparse, as there is little borehole data, though that which has been compiled along with the comprehensive study of Devoy (1979) suggests that the channel reached a maximum depth of some  $-21\text{m OD}$ . The data are insufficient to produce a sequence of topographical maps for the early history of the channel. However, a map of the likely landscape c. 2000 years ago is shown in Fig. 2, based on the present-day limits of the alluvial channel (D. Perkins pers comm.) which still ‘separates’ Thanet from the rest of Kent. The gradual silting-up of the channel appears to have begun in late prehistory with the establishment, at the southern mouth of the channel, of the Stonar Bank via

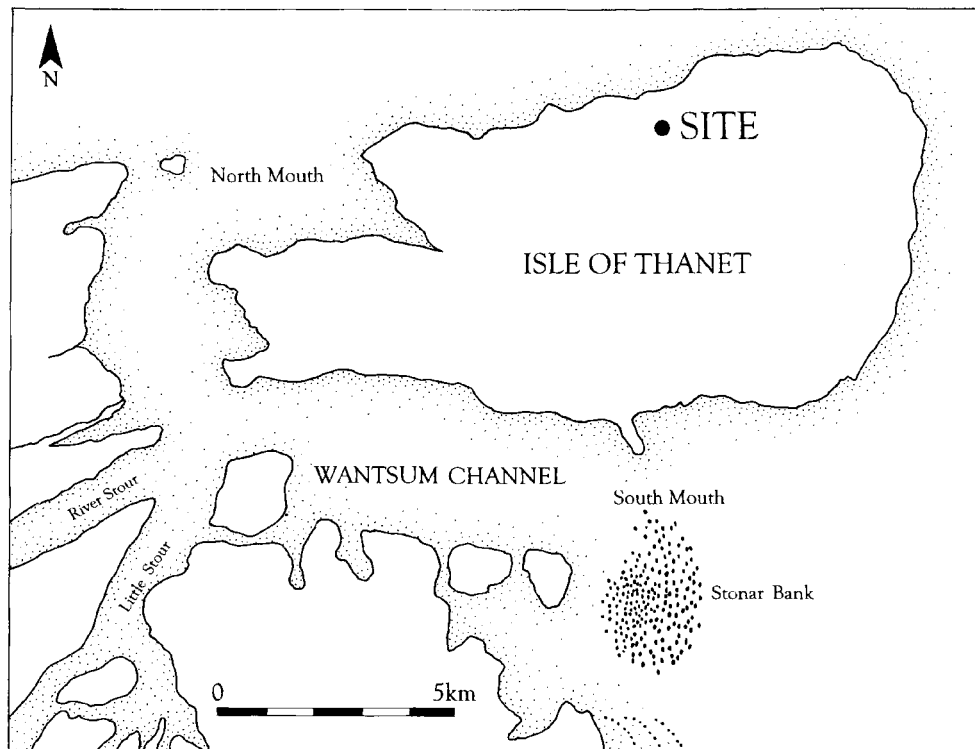


Fig. 2. The Wantsum Channel

offshore migration. This would have caused large quantities of flint shingle (brought north by the currents of the English Channel) to be deposited in the tidal slack surrounding the bank. By the thirteenth century the Wantsum channel's gradual deterioration emerges into the historical record, with references to increasing problems in terms of navigability to shipping. Indeed, by the end of the thirteenth century the southern entrance to the channel was no longer navigable to merchant shipping. This silting process continued until, by around the beginning of the eighteenth century, the once navigable Wantsum Channel had become an alluvial floodplain, much as it appears today.

### Archaeological background

Throughout any discussion of known archaeology on Thanet it must be remembered that, as outlined above, Thanet was an island throughout late prehistory and the Wantsum Channel was so large as to be passable only by boat until at least the end of the medieval period. Its importance and size at the end of the prehistoric period is attested to by the commanding presence of the Roman forts of Richborough and Reculver, defending the entrances to the channel.

The site lies within an area of archaeological interest, particularly with respect to sites of prehistoric date. Aerial photographs have identified the presence of extensive cropmarks, lying to the south and east of the school buildings (Fig. 1). These include a number of ring ditches or barrows likely dating to the earlier Bronze Age, and enclosures and field systems of later Bronze Age–Iron Age date. These have been recognised principally from aerial photographs, and include an extensive range of cropmarks lying to the south and east of the school buildings. The KCC SMR noted the presence of multi-period archaeological remains locally, particularly to the south, north and north east of the site. Features recorded within the school site itself include a denehole or marl pit (SMR 7789), a cropmark of unknown date (SMR 7866) and also cropmarks of probable Bronze Age ring ditches, sub-circular enclosures and linear features (Fig 1, No. 12), particularly situated in the south-western part of the site. Evaluation work by Thanet Archaeological Trust for Hartsdown Community Woodland in 1995 recorded extensive multi-period remains to the immediate south of the school, with some thirteen separate groups of features recorded (Perkins, 1996). A Roman road and a number of enclosures were recorded at Site 1, possibly related to extensive Roman and Belgic remains known to the north west in the Sunken Garden area of the Westbrook Cliffs (Fig. 1, No. 8). At Site 2 (Fig. 1, No. 10), an oval ditched enclosure and off-set ring ditch was superseded by Iron Age occupation, in the form of ditches, pits and post holes. A group of interconnected sub-circular enclosures, possibly cattle pounds, was identified at Site 3 (Fig. 1, No. 9), containing Late Bronze Age–Early Iron Age (hereafter LBA-EIA) sherds, whilst at Site 4 (Fig. 1 No. 14) a sub-rectangular enclosure with internal post holes and wall was recorded. At Site 5 (Fig. 1, No. 13) a rectangular enclosure with two internal rectangular post hole structures of Early-Middle Iron Age (E-MIA) date were identified. Site 6 revealed an E-MIA structure (Fig. 1, No. 20). At site 7 an E-MIA enclosure with causewayed entrance containing a number of refuse pits was identified (Fig. 1, No. 21). Site 8 revealed a smaller sub-rectangular EMIA enclosure (Fig. 1, No. 22). At site 9 NW/SE aligned ditches and some post holes of E-MIA date were recorded (Fig. 1, No. 23). Site 10 revealed evidence of a LIA rectangular enclosure (Fig. 1, No. 24). At site 11 a LBA-EIA sub-rectangular ditched enclosure was identified (Fig. 1 No. 17). An irregularly shaped cropmark at site 12 did not yield any dateable evidence, but the possibility that it could be related to Bronze Age flint mining (Perkins, 1996 ; 279-280) (Fig. 1, No. 25). Finally, site 13 revealed a c. 10m diameter ring ditch containing a pit that held fragments of a MBA bucket urn when excavated (Fig. 1, No. 25). The land surrounding the excavation area is therefore clearly very rich in late prehistoric sites.

## **Excavation background and methods**

During January 2001, Archaeological Solutions (HAT) carried out an archaeological evaluation of the site in advance of redevelopment of land at Hartsdown College. The objectives were to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains threatened by the proposed development. Five trial trenches (one measuring 10 m x 2 m and the others all 15 m x 2 m) were excavated across the site (Fig. 3). The smaller trench was placed in the area of the proposed new car parking spaces, while the others were opened in the footprints of the proposed buildings – a new Sports Hall and Science Block (two in each). With the exception of trench five in the car park area all revealed archaeological features and finds. These were restricted to a small gully [1009] and two larger ditches [1011] and [1005] one of which [1005] was associated with the crouched inhumation burial outlined below. The ditches were substantial (c. 2 m wide and 0.80 m deep), and their orientation implies that

they belonged to two separate enclosures. The ditches contained prehistoric pottery but the lack of diagnostic sherds made dating difficult, and activity could only be bracketed generally to the LBA-EIA. Quantities of struck flint and animal bone were also recovered. The evidence suggested the presence of a small single-period site, with associated burial activity.

The evaluation clearly indicated that an excavation was warranted and this was undertaken according to a two-phased strategy. A roughly rectangular area (measuring c. 30 m x 20 m) was opened up where the inhumation grave was located (footprint for the New Sports Centre). In the other area, where Evaluation trenches 1 & 2 had been located, a Watching Brief was conducted. Both footprints were excavated using a tracked 360° mechanical excavator under close archaeological supervision, until the underlying natural deposits were visible. Thereafter, exposed surfaces were cleaned and excavated by hand. Excavated spoil was checked for finds using a metal detector.

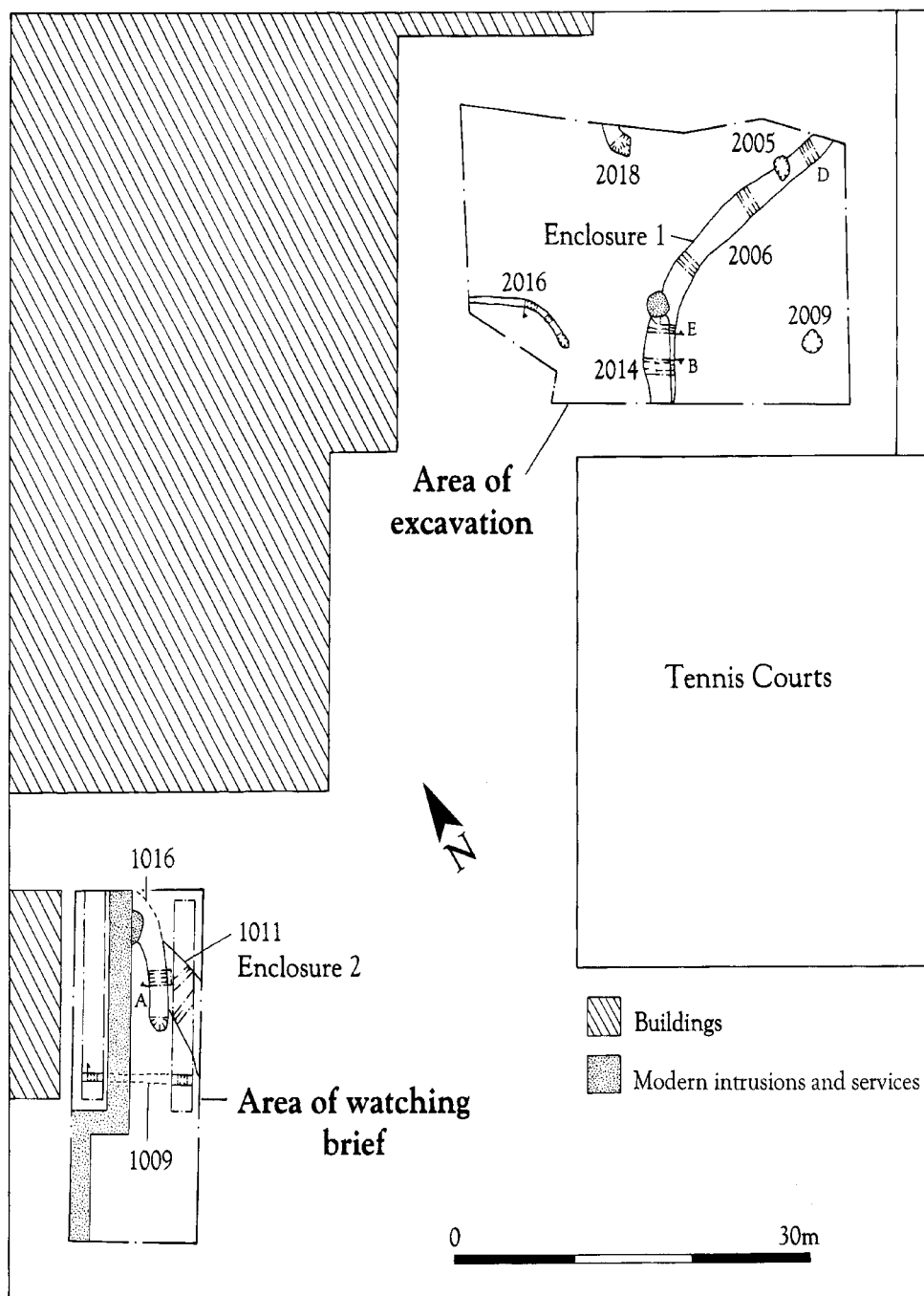


Fig. 3. All features plan

## The excavated evidence

The site revealed a broadly common stratigraphy, comprising c. 0.3 m of topsoil overlying a mid-brown, sandy silt subsoil of similar depth. This, in turn, overlay the natural drift - brickearth with occasional chalk inclusions.

The principal feature excavated (enclosure 1) was a substantial curvilinear enclosure ditch [2006] that had been identified during the evaluation. Initially it was thought that the burial was within the ditch, rather than being in a separate grave pit. This ditch was a substantial feature, measuring between 1.5 m and 2.00 m in width and 0.60 m and 0.77 m in depth, and containing two fills. Its profile was V-shaped, with relatively steep sides and a slightly concave base (Fig. 4). The primary fill was a yellowish brown claysilt with flint pebbles (2007). Large quantities of pottery and animal bone came from this deposit, as well as struck flint. It was only in one segment (D) that an upper fill was recorded (2020), consisting of a dark brown sandy silt with occasional chalk pebbles. This later fill contained proportionately more finds than the earlier one, since a greater weight of these finds came from the one section excavated as opposed to the six segments dug where fill (2007) was found in isolation. A small lens of slumped chalk was identified in the base of segment E.

This ditch was re-cut to the south-west as [2014], and here exhibited a different profile. It had a rounded terminus to the north-north-east, and was traced for a length of at least 6 m. It was wider at the terminus (up to 2.3 m) and tapered to 1.6 m further to the southwest. The re-cut displaced the earlier ditch alignment slightly to the west. It was shallower than the original cut (only 0.45 m deep) and contained three separate fills. Two of these, basal fill (2008) and upper fill (2015) were noted in all of the segments excavated, while an intermediate fill (2022) was recorded in segment B only, as was an area of chalk slumping in the base of the ditch (Fig. 4). The primary fill of the re-cut (2008) contained significant quantities of material culture – with more animal bone and pottery than from the original cut. No finds were present in either the intermediate or upper fills.

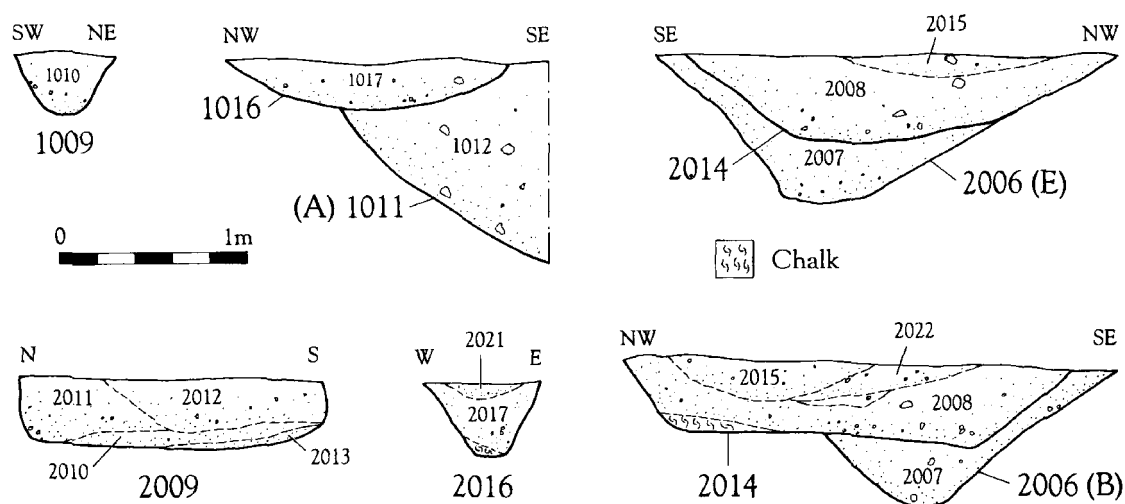


Fig. 4. Sections

A sub-circular pit [2009] situated within enclosure 1 was excavated in the south-eastern part of the site. Although only c. 1.60 m in diameter and 0.45 m deep, it contained four separate fills and a large quantity of pottery. The earliest fill (2013) was a clay-silt that may have been related to slumping on the southern side of the pit and contained no finds. The intermediate fill (2010) contained the densest quantity of finds (including a substantial part of a large pot, and three copper alloy objects). This deposit was dark and humic, with large amounts of charcoal, and only 0.10 m thick. The layer above this (2011) was much deeper (0.35 m), but only contained a very small quantity of pottery. The latest layer (2012) was only present in the southern part of the pit and produced a significant quantity of material culture (including burnt flint and animal bone).

A narrow curvilinear gully [2016] (9 m+ in length) was detected in the western part of the site. For the majority of its length it was aligned north-west/south-east, curving to a squared terminal to the south, and continuing beyond the excavated area to the northwest. It was only 0.6 m wide and 0.45 m deep, with a V-shaped profile and a flattish base. It contained two fills, in addition to small quantities of slumped chalk. Only the basal fill (2017) produced finds (mainly pottery and large quantities of struck flint), while the upper fill (2021) was a sterile mid-brown silty loam. This gully was situated outside the enclosure and though only partially revealed could be tentatively suggested to belong to part of an associated field system.

Only one further feature was identified during the excavation - a natural solution hollow [2018]. It was irregular in both plan and profile and contained no finds.

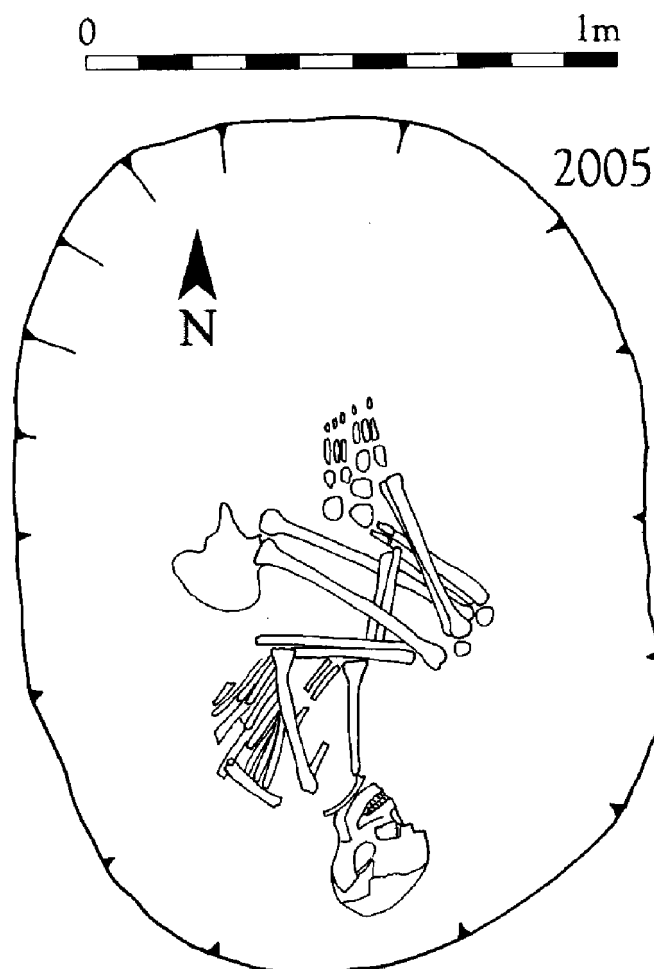


Fig. 5. Burial

## **The inhumation**

Perhaps the most significant find encountered at Hartsdown Technical College was a formal burial of probable late prehistoric date (see discussion). The individual was buried within a shallow grave pit [2005] that truncated ditch [2006]. The grave cut was sub-rectangular in shape with rounded corners and slightly irregular sides. Its main axis was aligned north/south and it had steep, near vertical sides and was quite shallow (0.17m) with a flattish base. The grave fill was a brown sandy silt that contained no dateable finds. The interred skeleton lay crouched on its right hand side and faced east, with the head to the south and the feet to the north (Fig. 5). The knees were drawn up, with the feet together, and the right arm was found between the legs. The left arm was crossed over the right arm. Nearly the entire skeleton was recovered though some postmortem damage by rooting was apparent. No grave goods were present.

## **Watching brief**

The evaluation had detected activity to the west of the main site, including a probable second enclosure (enclosure 2), as indicated by a large ditch [1011], containing a significant quantity of dateable finds. This was slightly curvilinear in plan and further investigation during the watching brief demonstrated that it might have terminated to the north, although a number of modern intrusions blurred this terminus (Fig. 3).

The watching brief uncovered another ditch with a terminus [1016] that was curvilinear and aligned generally north/south, curving to the south towards its termination. This truncated ditch [1011] and it contained significantly smaller quantities of material culture. Although the pottery from the fill of the later ditch (1017) was Early Iron Age in date, it may be residual from the cutting of earlier ditch [1011]. Lava quern fragments from the fill suggest that this feature might belong to the later Iron Age, although modern features in this part of the site could mean that the lava quern fragments are intrusive.

The two enclosures identified may be contemporary in date. Aerial photographs (Fig. 1) had identified a sub-circular/sub-rectangular enclosure (with no SMR number) lying c. 25 m south of the eastern enclosure excavated here. It could be suggested that, given the proximity of the feature on aerial photographs, some error in rectification of the photograph may have occurred and that the excavated feature is actually that visible on the aerial photograph. However, given the more rectangular appearance of the enclosure identified in the photograph and the curvilinear nature of the excavated example the authors consider this to be extremely unlikely. Any possible error in rectification cannot be confirmed by examining the westernmost enclosure as this has no nearby photographic evidence, as it lay under modern buildings. We conjecture that while the aerial photographic evidence is extensive it does not indicate the full complexity of the site, and that other substantial features have remained unidentified prior to excavation.

## Specialist reports

### Struck and burnt flint

*Tom McDonald*

*A total of 40 flakes, 2 blades, 38 chips, 1 core and 31 fragments of burnt flint was recovered from 11 separate contexts.*

The majority of the struck flint comprises flakes, often broad. None of the pieces were retouched and the majority was sharp, displaying varying degrees of patination. It is frequently grey brown, and dark grey. The presence of primary, secondary and tertiary flakes providing a complete reduction assemblage suggests that knapping occurred across the site. Although no evidence of in situ knapping was revealed, two contexts (ditch fills (1008) and (2007)), produced numerous small chips. One fragment relating to a possible multi-platform core, was recovered. Only two blades were identified and the struck flint consists mostly of secondary and tertiary pieces. Most of the flint comprised wide platforms and perceptible bulbs of percussion, with evidence of bulbar scars and snapping on some pieces. A flake-dominated assemblage displaying these characteristics is derived from a hard hammer core reduction technique that is consistent with a later Bronze Age date (Holgate 1988).

### Pottery

*Jonathan Last*

The investigations at Hartsdown yielded a total of 386 sherds of pottery (and c. 60 crumbs or amorphous fragments) weighing 2885g. These derived from five features: ditches [1007] (just two sherds), [1011] and [2006] (along with its re-cut [2014]), pit [2009] and gully [2016].

Feature	Sherd Count
1007	2
1011	64
Seg 1	16
Seg 2	48
2006	94
Seg 1	4
Seg 2	7
Seg 3	69
Seg 4	6
Seg 5	8
2009	152
2014	40
2016	34
Seg 1	1
Seg 2	3
Seg 3	30

**Table 1.** Quantitative summary of ceramic assemblage

## *Fabrics and forms*

Six fabrics were identified, all but one containing flint inclusions. Coarse fabrics F1 and F2 are distinguished by the sandiness of the clay matrix, probably reflecting different sources. F5 characterises the fineware component of the assemblage. Whereas F1/2 sherds are frequently thick-walled (c. 10 mm) those in F5 are much thinner (5-6 mm). Most of the F5 pottery has survived only as small fragments (< 20 mm) and the fragility of this fabric may have inadvertently increased the sherd count. The remaining fabrics (F3-4, F6) account for just 5 % of the total assemblage. Two small rounded fragments of fired clay containing sand and moderate rounded calcareous inclusions, c 1 mm in diameter (F7), probably represent fragments of daub or objects such as loomweights.

The fabric descriptions are as follows:

- F1:** mixed oxidation states; moderate to common coarse flint (to at least 2 mm and sometimes to 5 mm) and very fine sand; 106 sherds.
- F2:** generally unoxidised; moderate to common coarse flint as F1; sand sparse or absent; 147 sherds.
- F3:** sparse coarse flint and sand as F1; 13 sherds.
- F4:** as F1 but with oxidised surfaces and the addition of sparse coarse red ironstone grits; 3 sherds.
- F5:** generally unoxidised with smoothed/burnished surfaces; moderate to common fine flint (< 1 mm); 113 sherds.
- F6:** common very fine sand only; 2 sherds.
- F7:** with calcareous inclusions; 2 sherds.

There is some difference in the distributions of the different fabric types, which may suggest functional or chronological variation. The F1 sherds derive principally from [1011] (especially seg. 2) and [2014]; F5 was more common in [2006] (most of them in fill 2020) and [2016] while F2 was predominant in [2009].

For the ditch assemblages information on forms is limited. A simple, everted rim came from [1011] segment A, and several joining fragments of a flat base from segment B. Ditch [2006/2014] produced a single upright, rounded rim [2014] and four flat bases: three in [2014] (F1/2) and one in [2006] (F5). Two of these, including that from [2006] (Fig. 6.1) had open angles suggestive of bowl forms, the others were more upright and could be jars - one of the latter had a pinched-out foot (Fig. 6.2). The only decoration from these contexts comprised shallow grooved horizontal lines on some of the F5 body sherds from [2006] segment C (Fig. 6.3). One sherd from [2014] had a white deposit on the interior, probably limescale.

The smaller assemblage from gully [2016] is similar to that from [2006/2014], though more sherds were oxidised. A single small F5 rim sherd was found, suggesting an upright profile with slightly everted rim.

The 152 sherds in pit [2009] are characterised by a distinctive fabric (F2) and the absence of fineware, which suggests this assemblage may not be precisely contemporary with that from the ditches. However, [2009] produced more information on forms. Many sherds in fill [2010] derive from a single large necked jar (Fig. 6.4). This vessel has a slightly everted rim, decorated with well-spaced fingernail impressions, a

concave neck and a fairly sharp shoulder. The rim diameter is c. 270 mm. Fragments of a flat base were also found. The surfaces are mottled, but generally unoxidised; the vessel is relatively thin-walled (c. 6 mm).

A large sherd from another vessel in a slightly coarser fabric comprised a complete ring-base, 60 mm in diameter (Fig. 6.5). Two other rim sherds, one upright (Fig. 6.6) and one everted (Fig. 6.7), were found, as well as another flat base. One body sherd comprised part of a shoulder or carination decorated with elongated impressions, not made with the finger.

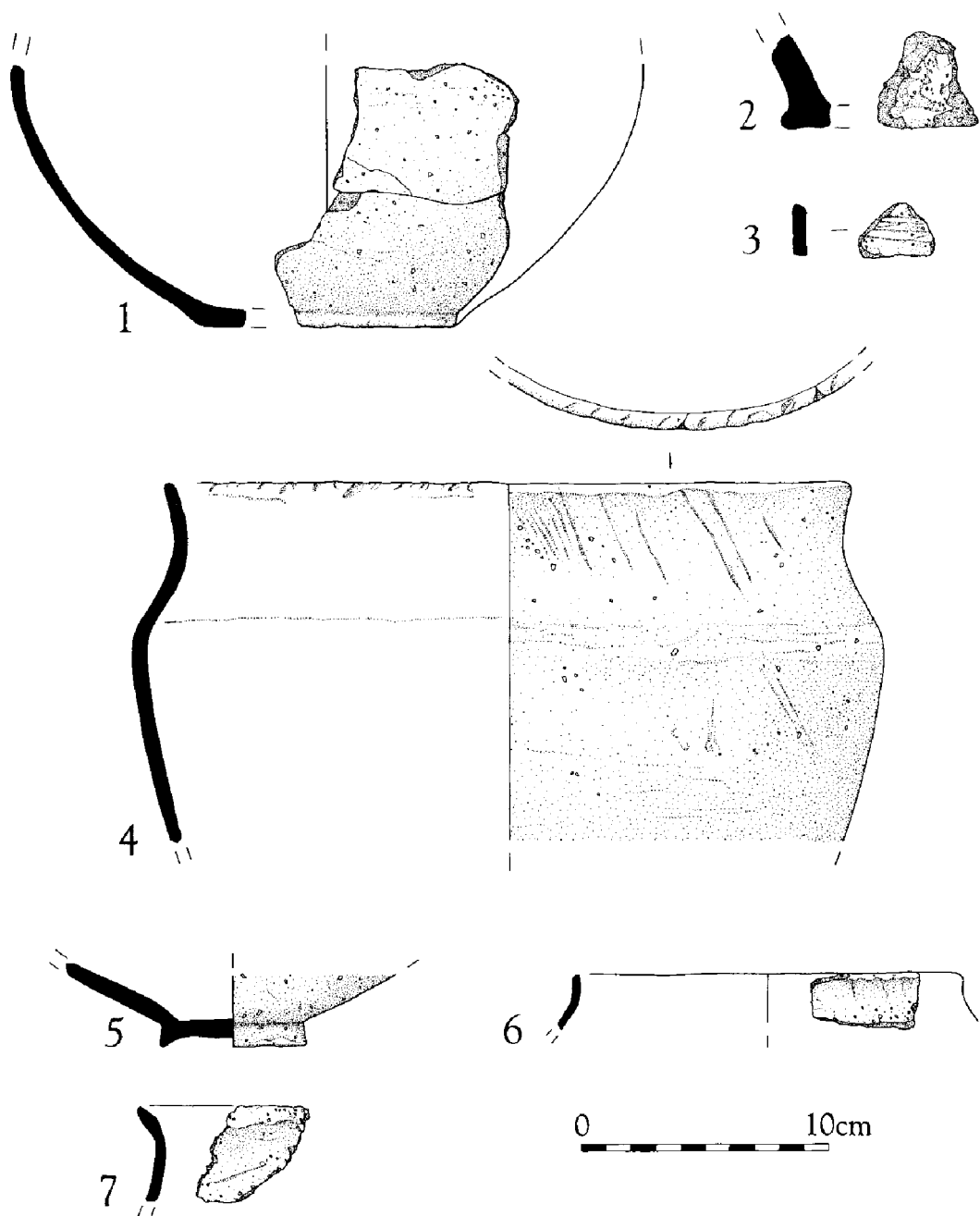


Fig. 6. Pottery

## *Discussion and dating*

Although it is suggested that pit [2009] may not be contemporary with the linear features, typologically they probably belong to the same period. The shouldered form of the large jar in [2009] and the limited decoration on rims and shoulders suggest a general Late Bronze Age-Early Iron Age (LBA-EIA) date. However, ring-bases are usually seen as a distinctively Iron Age form showing continental La Tène influences. They are not present in the LBA-EIA (pre-600 BC) assemblage from Monkton Court Farm, Thanet (Perkins et al. 1994) and other characteristically LBA traits there, such as profusely flint-gritted bases, have not been seen at Hartsdown. Drury (1978, 127-8) discusses the distribution of footring bowls in the region, though the short-necked, weak-shouldered Middle Iron Age jars at Little Waltham, Essex are quite different from that at Hartsdown. On the other hand, footrings are regularly found in EIA assemblages on the Essex side of the Thames estuary, including Orsett (Barrett in Hedges & Buckley 1978) and North Shoebury (Brown 1995). They also occur in Cunliffe's Park Brow-Caesar's Camp group, which appears to take in north Kent and is now dated to the 6th - 4th century BC (Cunliffe 1991, 72). At Orsett, the tooled cuts on the shoulders of some jars and the use of incision also show affinities with Hartsdown, although the incised sherds from the ditches here could equally well be LBA (cf. North Shoebury).

While the ditches might slightly predate pit [2009], therefore, it seems appropriate to assign all the features to the Early Iron Age, perhaps in the 5th or 4th century BC. This would also fit with the crouched inhumation, which cuts ditch [2006] and - on precedent - seems unlikely to long pre-date the 4th century.

### Figure 6.

- Fig. 6.1      Base of bowl; F5; unoxidised surfaces and fabric; exterior  
burnished/smoothed; ditch 2006 (fill 2007)
- Fig. 6.2      Base of ?jar; F1; oxidised exterior, mottled interior, unoxidised fabric;  
ditch 2014 (fill 2008)
- Fig. 6.3      Decorated body sherd; F5; unoxidised surfaces, part oxidised fabric;  
ditch 2006 (fill 2007)
- Fig. 6.4      Rim of jar; F2; mottled surfaces, unoxidised fabric; exterior wiped; pit  
2009 (fill 2010)
- Fig. 6.5      Base of bowl; F1; unoxidised surfaces and fabric; interior  
scraped/wiped; pit 2009 (fill 2010)
- Fig. 6.6      Rim of jar; F2; mottled surfaces, oxidised fabric; pit 2009 (fill 2010)
- Fig. 6.7      Rim of jar; F2; mottled surfaces, unoxidised fabric; pit 2009 (fill 2010)

### **Small finds**

*Nina Crummy*

Pit [2009] contained two bronze awls and a bronze annular fitting. It is possible that these objects were not casually disposed of, but deliberately placed in a form of structured and formalised deposition (Hill, 1995, 20). One of the awls and the ring were slightly damaged. Similar awls span the entire Bronze Age, and can usually only be dated closely through association with other finds. In the Early Bronze Age they were placed in burials, and by the Middle to Late Bronze Age they occur on settlement sites and in hoards. They occasionally continue into the Iron Age, where they have been noted on sites along with iron awls. Rather than being residual, this evidence may imply

that awls of both metals were being used concurrently, perhaps for different purposes (Needham 1986, 142). Both single and double-ended awls were probably primarily used in leather-working to pre-form stitch holes, although they might also have been used as engraving tools on metal-work (Annable & Simpson 1964, 415-31; Pendleton 1999; figs. 42-3). When fitted with a handle, they could also be used as punches.

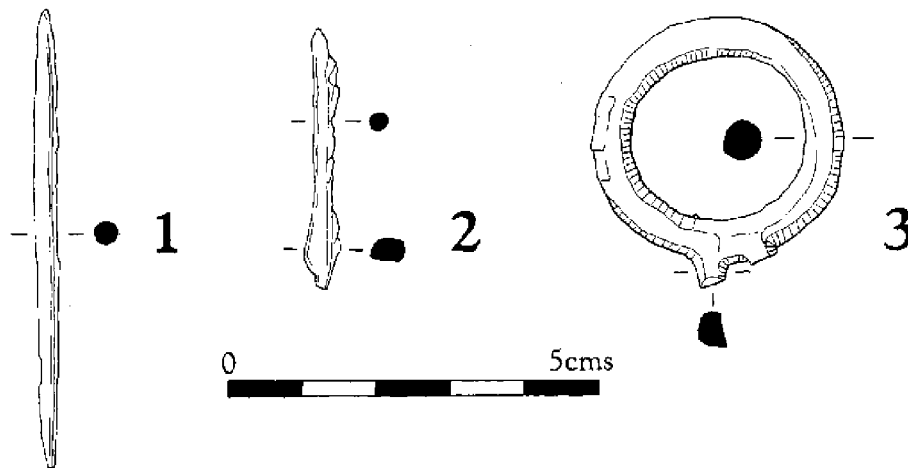


Fig. 7. Copper alloy objects

The identification of the annular fitting is more difficult but is most likely to have been part of a handle or a harness fitting. It has two broken short projections set close to each other on the outer edge of the ring, probably diverging very slightly. They lie much closer together than those from other harness fittings such as those from Parc-y-meirch, Denbighshire and Welby, Leicestershire, both of which are thicker than the Hartsdown ring. The Parc-y-meirch hoard also contains a cheek-piece fitted with a bridle ring with a rectangular strap-loop on one side, but again the projections on the outside of the Hartsdown ring are too close together to have formed a loop of this kind (Megaw & Simpson 1979, figs. 6.43, 7-8, 6.29, 5). The upper part of strap- or belt-fasteners is composed of a ring of this size (e.g. Cunliffe 1987, fig. 111, 41-2), but no example has been found in which the knobbed projection is similarly split close to the ring. Plain rings are found as handles or suspension loops on many Bronze Age objects, such as buckets and flesh-hooks, and this may be a variation of the plain form. Many razors have integral loop handles, in some cases with two projections set close together and running parallel away from the ring (e.g. Stead 1998, pl. 6, top centre), though this example is larger than usual.

Whatever the function of this ring its association with the two awls suggests that it is of Late Bronze Age date, and that the three objects were most likely deliberately placed together in the pit.

#### Figure. 7

*Fig. 7.1. SF 1.* (2010). Pit [2009]. Double-pointed awl, with one end square in section, the shank and the other end round. The shank is slightly thicker above the square-section point. Length 61.5 mm.

*Fig. 7.2. SF 2.* (2010). Pit [2009]. Awl, possibly double-pointed, but only one end is intact. This is square in section and thicker than the main part of the shank, which is round and tapers towards the damaged end. Length 35 mm.

*Fig. 7.3. SF 3.* (2010). Pit [2009]. Annular fitting, with two projections broken close to the ring. Circular in section, 5.5 mm thick, with an external diameter of 34 mm.

## **Human remains**

*Dr Tony Waldron*

A single skeleton was recovered. Although it was largely complete, it lacked the sternum, the sacrum and both pubic bones. There was also substantial post mortem damage and the surface condition of the bones was poor, having been greatly altered by tree roots, the impressions of which were visible on much of the skeleton.

The skeleton was that of a small male, judging from the morphology of the pelvis and the skull, and was aged at least 45 years of age at the time of death. His height, estimated from the maximum length of the right humerus, was 1.68 m (5' 6"). The femoral and tibial indices could also be calculated and they gave results of 76.4 and 67.7 respectively; these are within the platymeric and mesocnemic ranges, in which the majority of results tend to lie.

There was some pathology in the spine and osteoarthritic change was found affecting the facet joints of the 8th and 9th thoracic vertebrae and all the vertebrae from the eight thoracic to the fourth lumbar had marginal osteophyte on the body. Finally, Schmorl's nodes were present on the 8th to 11th thoracic vertebrae. Osteoarthritis of the spine is a common finding in human skeletal remains but it tends mostly to affect the cervical, upper thoracic and lower lumbar areas; the position in this skeleton is rather unusual but by no means rare. There was no further evidence to suggest why this area of the spine, rather than the more usual areas, had been affected.

A dental abscess was noted affecting the first right upper incisor, and all the teeth had a moderate amount of calculus with further evidence of a moderate amount of alveolar resorption. Both conditions were no doubt the result of poor dental hygiene resulting in primary gum disease.

## **Animal bone**

*Ian Baxter*

### *Introduction*

A total of 217 bone fragments was hand-collected from the site, of which 89 could be identified to species or broader taxonomic category (Table 2). The unidentified material largely consists of small chips and flakes of bone, many of which are certainly derived from the more recognisable fragments. The animal bones are generally fairly well preserved, but leached due to the alkalinity of the burial conditions. Most of the assemblage came from the enclosure ditches and the re-cut. A few fragments were also found in the fill of grave [2005].

### *Methods*

All bone fragments, including unidentifiable fragments, were recorded. Vertebra, rib and long bone fragments indeterminate to species were recorded as large mammal (horse/cattle size) or medium mammal (sheep/pig size). A general category of 'bird' was also used. Identifications are based on the comparative collection of the author. Tooth wear stages are based on Grant (1982), and bone measurements follow von den Dreisch (1976), Payne & Bull (1988) and Davis (1992).

<b>Taxon</b>	<b>Period: Early Iron Age (c.5<sup>th</sup>-4<sup>th</sup> BC)</b>
Human ( <i>Homo sapiens</i> )	1
Cattle ( <i>Bos f. domestic</i> )	24
Sheep/goat ( <i>Ovis/Capra f. domestic</i> )	7
Pig ( <i>Sus f. domestic</i> )	3
Horse ( <i>Equus caballus</i> )	10 (six bones from a partial skeleton)
Large mammal	20
Medium mammal	23
Bird ( <i>Aves</i> )	1
<b>Total</b>	<b>89</b>
Unidentified	128
<b>Total</b>	<b>217</b>

**Table 2.** Number of hand-collected mammal and bird bones (NISP)

### *Discussion*

This is a tiny assemblage of animal bones, but of some interest given the proclivities of prehistoric peoples for structured deposition (Hill, 1995). The bulk of the assemblage derives from the enclosure ditch [2006] and its re-cut [2014]. Cattle fragments are most numerous and include a complete metatarsus from the upper fill (2020) of [2006]. This belonged to a beast approximately 109 cm high at the shoulder based on the multiplication factors of Matolcsi (1970). Such a size is close to the mean in the Iron Age (Davis 1987: Figure 8.7). The few other measurable bones found belonged to animals of similar size. Two horncores were recovered and, although incomplete, these appear to derive from shorthorned animals. That found in the enclosure ditch re-cut [2014] (2008) seems to have belonged to an ox, based on its width and thin walls (Armitage & Clutton-Brock 1976). While no cattle bones with unfused epiphyses were seen, the associated dP2-M1 belonging to a beast aged 8-13 months (Grigson 1982) were found in [2014] (2008).

Sheep/goat fragments are markedly less frequent than those of cattle and none could be identified to species. Experience with other sites dating from this period would suggest that only sheep is represented. No sheep bones were sufficiently complete to calculate withers' heights. Neither were any mandibles recovered from which mandibular wear stages could be established. The few bones seen would appear to derive from typical Iron Age animals.

Pig remains were even scarcer than those of sheep. They include a maxilla with P4-M3 found in ditch [2006] (2007). The M3 is not in full occlusion and the animal was probably aged less than 18 months (Sisson & Grossman 1953). A maxillary fragment belonging to a much younger animal with dP2 in situ was found in [2014] (2008).

Horse bones are relatively frequent, accounting for 13% of domestic species. They include six bones from the right hind leg of a single individual found in ditch re-cut [2014] (2008). This animal stood approximately 127 cm or 12½ hands high at the shoulder based on the multiplication factors of Kiesewalter (1888). The other isolated equid bones recovered are also pony sized and are morphologically similar to those of the horse (*Equus caballus*) rather than the donkey (*Equus asinus*) (Baxter 1998). An isolated unworn/unerupted P3 was found with the associated hind limb elements. This will have belonged to an animal aged under three years old (Sisson & Grossman 1953).

An isolated M3 from [2006] (2007) came from a horse aged approximately nine years based on the comparative wear curves of Levine (1982).

A small, thin walled, long bone shaft fragment found in pit [2009] (2012) appears to have belonged to a bird the size of a goose.

### *Summary and conclusion*

The assemblage is too small to draw any conclusions regarding the species composition of the various fills of the enclosure ditch, its re-cut or the pit. In general, however, cattle seem to have been the most numerous species, followed by sheep and then pig. The relative scarcity of pig suggests a shortage of adjacent woodland suitable for foraging, but the assemblage is too small to warrant such speculation. Pony sized horse fragments are relatively common, more so than those of pig, and suggest a reliance on horses for transport and the herding of livestock. Overall, this assemblage is very similar in its composition to much larger Early and Middle Iron Age assemblages from Cambridgeshire previously studied by the present author (Baxter unpublished a and b).

## **Environmental evidence**

*Val Fryer*

### *Introduction*

Excavations at Hartsdown Technology College revealed features of probable Early Iron Age date and included enclosure ditches, pits and a crouched inhumation. Three samples for the extraction of plant macrofossils were taken from the fills of pit [2009] and ditch [2006].

### *Methods*

The samples were floated by the excavator, collecting the flots in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16, and the plant macrofossils and other remains noted are listed in table 3. Nomenclature in the table follows Stace (1997). All plant remains were preserved by charring. Modern contaminants including fibrous roots, seeds/fruits and arthropod remains were present in all samples. The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. Bone, pottery, flint and burnt stone were recovered for further specialist analysis.

### *Results – Plant Macrofossils*

Cereal grains/chaff and seeds of common weed species were present at low to moderate densities in all three samples. Preservation was poor to moderate; a high proportion of the grains and some seeds had become puffed and distorted during charring and macrofossils were frequently fragmented.

*Cereals.* Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recorded. Chaff elements were extremely rare, comprising single specimens of a barley rachis node and a wheat spikelet base.

*Wild flora.* Seeds/fruits of common segetal taxa were present in all samples and included fat hen (*Chenopodium album*), black bindweed (*Fallopia convolvulus*),

bedstraw type (*Galium* sp.), ribwort plantain (*Plantago lanceolata*), indeterminate grasses (Poaceae) and dock (*Rumex* sp.).

*Other plant macrofossils.* Small charcoal fragments and pieces of charred root, rhizome or stem were present throughout. Indeterminate culm node fragments and seeds were also noted.

*Other Materials.* Numerous fragments of black porous 'cokey' material, black tarry material, vitrified material and siliceous globules are all probably derived from the combustion of organic remains (including grains and straw/grass) and other residues at extremely high temperatures.

Context No.	2010	2012	2008
<b>Cereals</b>			
Cereal indet. (grains)	x	x	x
<i>Hordeum</i> sp. (grains)	xcf	x	
(rachis node)			xcf
<i>Triticum</i> sp. (grains)	x		
(spikelet base)	x		
<b>Herbs</b>			
<i>Chenopodium album</i> L.	x		
Chenopodiaceae indet.	x		
<i>Fallopia convolvulus</i> (L.) A. Love	xx	xx	
<i>Galium</i> sp.		x	
<i>Plantago lanceolata</i> L.	x		
Small Poaceae indet.	x		
Polygonaceae indet.	x	x	
<i>Rumex</i> sp.	x		x
<i>Sherardia arvensis</i> L.	xcf		
<i>Vicia/Lathyrus</i> sp.		xcf	
<b>Other plant macrofossils</b>			
Charcoal <2mm	xxx	xx	xx
Charred root/rhizome/stem	x	x	x
Indet.culm node	x		
Indet.seed	x		
<b>Other material</b>			
Black porous 'cokey' material	x		
Black tarry material	xx	x	x
Bone		x	
? Amber fragment		xcf	
Siliceous globules	x		
Vitrified material	xx		x
<b>Sample Volume (litres)</b>	<b>20</b>	<b>30</b>	<b>20</b>
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 3.** The environmental remains.

Key: x = 1-10 specimens  
xx = 10-100 specimens  
xxx = 100+ specimens

## *Discussion*

The assemblage from ditch [2006] contains insufficient material to be accurately interpreted.

The assemblage from pit [2009] both appear to contain low densities of cereal processing waste including grains, chaff and segetal weed seeds. The poor preservation of the material probably indicates that it was either subjected to repeated burning or a single episode of combustion at an extremely high temperature. In both instances, it is likely that the composition of the assemblage is biased toward the more robust macrofossils. One notable point is that the weed assemblage is dominated by seeds of black bindweed. As these are of a similar size to cereal grains, they would have been removed by winnowing and would have required hand picking during the final stages of processing. It is therefore likely that this material is derived from the cleaning of cereal at an advanced stage of processing.

The amount of material recovered from each sample is extremely low (<0.1 litres) and quantifiably viable assemblages (200+ specimens) are not present. As further work would add little to the above conclusions no further work is recommended.

## **Discussion**

Archaeological excavations at Hartsdown provided evidence of a single period site, possibly with two sub-phases, dating between the 5th and 4th centuries BC. The evidence comprised two sub-circular enclosures, apparently both related to agricultural rather than domestic activities. This is indicated by the animal bone assemblage's reliance on cattle and horse bones and the indication of crop processing provided by the environmental evidence (though an alternative hypothesis is presented for the plant macrofossil findings, below). Enclosure 1 also showed a possible association with ritual practices. The flint assemblage from the site, although probably mainly residual and showing no particularly focussed distribution, suggests that the site was located in an intensively occupied prehistoric landscape. The lithics can be tied in with later Bronze Age activity in the immediate vicinity of the enclosures, and some of the neighbouring cropmarks adjacent to Hartsdown date to this period.

Two potential phases, not significantly different in date according to the pottery, are identifiable with respect to both enclosures. The first phase (1a) relates to two original enclosures (ditch [2006] of Enclosure 1 and ditch [1011] of Enclosure 2). At a slightly later phase (1b), the northern terminus of Enclosure 2 is truncated by a narrower ditch [1016], and this may be associated with the cutting of gully [1009]. In Enclosure 1, recut [2014] marks the effective end of ditch [2006], with a new interrupted ditch enclosure on a marginally different alignment. It could be conjectured that the inhumation is placed in a pit [2005] cutting the earlier, now defunct, enclosure at this time. Associated with this burial may be pit [2009] inside the enclosure. This was the only feature identified within Enclosure 1, and the unusual nature of the fills, with respect to both deposition of soil and quantity of material, hints that the pit may have been related to ritual activities. The tip lines of all of the layers imply that the pit was filled quickly. It lies 12 m directly south-west of the grave, and the alternate fills show some pattern in their deposition. The earliest was deposited from the south and was

sterile. The next layer was also from the south but was full of material. The following two deposits filled the pit almost simultaneously, both being deposited from the north. The third fill was almost sterile, while the latest fill contained a large quantity of animal bone, and several fragments of pottery. The culturally rich fills also contained cereal processing waste. The inclusion of some bindweed seeds with the cereal grains may either indicate hurried preparation or a poor understanding of the required processing technology. Either way, it could be tentatively suggested that the material was prepared for a ritual purpose, particularly as it was deposited with some copper alloy objects (of later Bronze Age type) in the case of fill (2010). The alternate layering of the pit with sterile then contaminated soil (or pure and polluted, natural and cultured fills) and the different directions the soil was deposited from might therefore indicate a set of binary oppositions linked to wider ritual activity that included the burial.

The evidence indicates that the site may have comprised two small single period prehistoric field enclosures, functioning in the capacity of animal corrals, and associated with surrounding field systems. The small quantities of material culture retrieved from the ditches and the dearth of pits and post holes, are not indicative of a domestic site with associated structures. Although large amounts of pottery, animal bone and other finds came from the single pit within the main enclosure, this may have been a result of structured deposition related to the nearby inhumation, rather than to settlement. Indeed, the discovery of the inhumation makes this site more interesting and is of regional, if not national importance, since few formal and complete inhumation burials are known to date to the EIA.

### **The crouched inhumation**

“Formal burials dated to the Iron Age are not common in the British archaeological record, and only become more frequent from the first century BC” (Hey et al. 1999, 551). Instead, the funerary sphere of this period is characterised by the presence of single deposits of bone on settlements, and in the Middle Iron Age there is an increase of informal burials within settlements, often in features such as storage pits. For example, at the large settlement site of North Shoebury, excavations found only two burials dating between 600 and 300 BC (Wymer & Brown 1995, 22). These were a contracted adult inhumation in a storage pit and a disturbed child burial in the butt-end of a ditch.

In Kent, however, there are hints of different practices: some 45 burials were excavated at Mill Hill, Deal (Parfitt 1995), though most are extended inhumations belonging to the 2nd and 1st centuries BC, rather later than the date suggested for Hartsdown. One crouched grave, however, was dated to between the 8th and 4th century BC.

The few burials that we do have for the Iron Age are deposited in such a way as to imply that they are deliberate and structured. They also tend to have a close connection with settled space implying a different set of relationships and rules emerging between the world of the dead and that of the living during this time (Fitzpatrick & Morris 1994). The general absence of cemeteries has led authors to argue that attitudes to death and the disposal of bodies altered substantially between 600 and 100 BC. Cunliffe (1995, 72) has postulated that the dead were usually disposed of in ways that left little trace in the archaeological record. Thus the presence of a crouched inhumation within a grave pit at Hartsdown may have to be explained as the body of a man who for some reason was excluded from the normative burial rites (such as excarnation, scattering of ashes or fluvial burial).

The burial is unusual in other ways. Wilson's (1981) and Whimster's (1981) comprehensive analysis of Iron Age burial customs detected some patterns in the formal inhumation rite from the 300 examples available at the time in south-east England. There was a bias towards the left hand side in burial positions, with heads commonly orientated between the north and east, and the majority of inhumations adopting a crouched position. Whimster (1981) suggests that this represented "a powerful and influential body of common tradition" (1981, 194) in British Iron Age burials. Recent excavations at Yarnton, Oxfordshire, (Hey et al. 1999) demonstrated that the majority of the 35 crouched burials conformed to this pattern. The Hartsdown inhumation, however, lay on its right hand side with the head pointing to the south – in other ways a complete inversion of this supposed 'normative' tradition.

The grave cut for the Hartsdown burial, like so many others in the Iron Age was shallow and simple, and had no function other than to hold a body. There were no grave goods. Other factors in the location of the grave and the position of the body imply that the ritual and meaning behind the placing of corpses was structured and complex. Although the context of the inhumation was a pit, its location hinted at a close association with the ditch. Enclosures and their ditches undoubtedly had symbolic meanings, as well as functional ones, and periodically were cleaned out or re-cut in acts which may have included a ritual component. Ritual and belief may also have spatially governed the location of features and activities within and beyond the enclosure. Known formal Early Iron Age burials have shown a consistent pattern in their location. They tend to be found on the periphery of the settlement – in enclosure ditches or in pits or at the entrances to sites (e.g. North Shoebury; Wymer & Brown 1995) - or beyond the settlement area altogether (e.g. Yarnton; Hey et. al. 1999). It is only in the later Iron Age that they more frequently occur within the actual settlement itself.

The placing of bodies at settlement boundaries may have been linked to a belief system that was constructed around the boundedness and delimitation of space and an association with liminality and perhaps even fertility and rebirth on threshold zones. The Hartsdown burial was associated with a landscape that revolved around agricultural and pastoral activities rather than domestic routines. The body may have been used to negotiate these links between death and renewal within a fertile and productive environment concerned with plants and animals.

The relationship between the burial and the pit with bronze objects within the enclosure is interesting. There would appear to be a spatial association, with the burial respecting the location of the pit. Certainly the head of the inhumation is roughly orientated in its direction. It would be inviting to extend this link further and suggest that both the deposition of the body and that of the bronze objects were part of a similar or even the same ritual act, perhaps with the objects even symbolising the missing grave goods of the deceased. However, the problem with such an association is the chronology. The inhumation would appear to be 5th century in date, while the annular fitting is of a type typical of the 8th century BC, if not before. The presence of the awls, however, is not out of keeping with an Iron Age date (see Crummy, above), and one could argue that all three objects are potentially heirlooms. One of the awls and the possible harness fitting are both worn and broken and may have been kept in circulation for several generations after their production, only to be deposited at a similar time to the inhumation.

## Understanding the site within its context

The excavations confirmed the presence of substantial prehistoric activity in the vicinity of Hartsdown School, and have added to our knowledge of the Early Iron Age in this area. For example, an area of under 1000 m x 300 m just to the south of the college was investigated by Thanet Archaeological Trust in 1995 (Fig. 1). Thirteen sites were identified, the majority of prehistoric date (Perkins 1996). Thus, the site is located within an area that contains a concentration of features and finds predominantly dating to the Bronze and Iron Ages. A large number of cropmarks lie to the south and east of the school, and most are circular and rectangular enclosures, undoubtedly the remains of ring-ditches, field systems and settlements. They suggest the presence of a well-established prehistoric landscape dating from the Early Bronze Age onwards. Initially this was a funerary landscape, revolving around barrows (e.g. Fig. 1, Nos. 11 & 13) and the ancestors. The location of these burial monuments was associated with the topography of the land – on prominent or slightly raised locations near the coast. In the later Bronze Age and into the Iron Age this landscape was transformed into one linked to settlements and agriculture. The enclosures identified during excavations at Hartsdown Technology College were associated with this development and were closely associated with cropmarks in the vicinity. This landscape would have originally extended northwards before being disturbed by modern development. A number of other settlements (e.g. Fig. 1, No. 17) and agricultural (e.g. Fig. 1, Nos. 9 & 10) enclosures attest to the complexity and intensity of this activity. Interestingly, human remains were also found in 1980 during excavations of a Bronze Age enclosure in Tivoli Park (Fig. 1, No. 5), perhaps suggesting a similar structured deposition to that of Hartsdown. Ultimately, the archaeological investigations at Hartsdown College, though limited in size, have furthered our understanding of late prehistory in the Margate area and emphasised the close connections between the economic and ritual components of society during at the time.

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