RESEARCHES AND DISCOVERIES IN KENT

A REPORT ON WORK BY THE TRUST FOR THANET ARCHAEOLOGY 1997-1998

During the late summer of 1997, the Thanet Archaeology Trust was much involved with the Abbey Farm training excavation, and its aftermath of post-excavation logistics and processing. Thereafter, and up to the time of writing, the Trust has dealt with a succession of watching briefs and evaluations. Most of these were of short duration and gave mainly negative results. Two recent exceptions were: A house plot at the Cattle Market, Sandwich, where foundation were located presumably belonging to the medieval St. Thomas' Hospital, and Roman remains at North Foreland Avenue, Broadstairs, within the ditched boundaries of the large Iron Age hilltop camp. Two archaeological operations on a much larger scale are described below.

As a background to the above, the Trust continued with an ongoing programme of environmental and analytical research, and of liaison with local metal detectorists, some of which work is outlined below.

ARCHAEOLOGICAL EXCAVATION AND EVALUATION

Thanet Reach Business Park,. Broadstairs

This site was mentioned in the last volume of *Arch. Cant.* In the spring of 1998 topsoil clearance ahead of erection of the first factory building gave the Trust the opportunity to examine 0.85 hectares of an ancient horizon consisting of Thanet Beds sand. Once again, traces were observed of a possibly Mesolithic occupation. Other features encountered included a Late Neolithic - Early Bronze Age flint artifact scatter, two un-contained cremation burials, and, from an area that had yielded Late Bronze Age sherds during the previous evaluation, part of a bronze socketed chisel belonging to that period (Fig. 1.1).

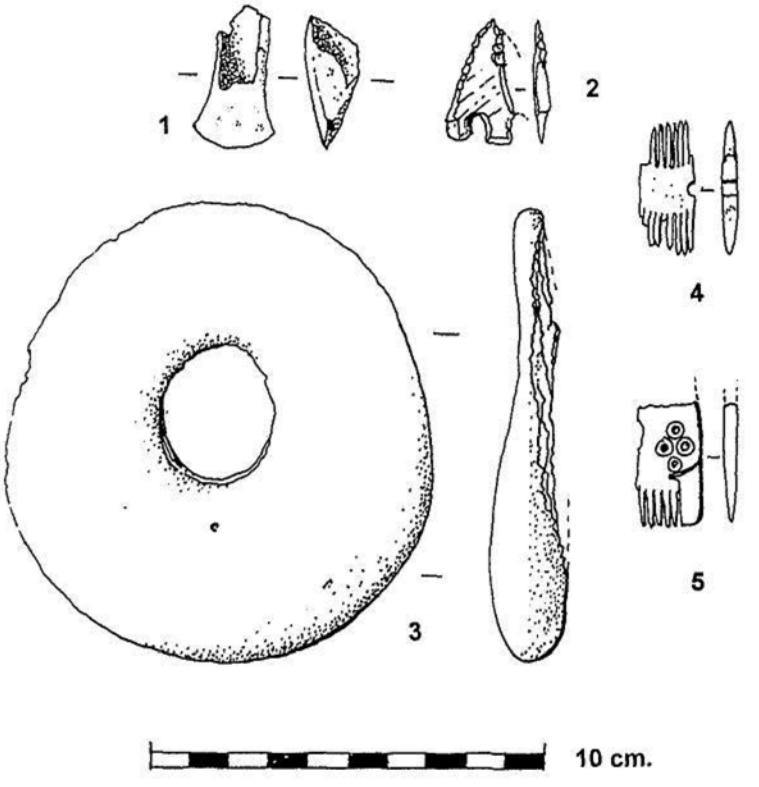

Fig. 1. Finds from the Thanet Reach and Oaklands Sites, all at scale shown.

Oaklands Nursery Site, Cottington Road, Cliffsend, Ramsgate

This site is close to Thanet's prehistoric and Roman period shoreline. It is adjacent to 'St. Augustine's Well' and borders the St. Augustine's Golf Course, much of which would be inundated by spring tides were it not for the post-medieval sea defence that carries the modern Ramsgate – Sandwich road. Acting to a specification set out by the Heritage Conservation Group, K.C.C., the Trust produced a desk based study of the site and followed it with an evaluation and a limited excavation. The latter was confined in an excavation box of 20 x 20 m., this revealing features belonging to these phases of occupation:

(i) Later Neolithic - Early Bronze Age. The remains consisting of the angle of two ditches whose fills yielded Neolithic (Peterborough type) sherds, also beaker, flint scrapers and a retouched tanged and barbed arrowhead (Fig. 1.2).

(ii) Anglo-Saxon, eighth-ninth century. Two features were found, consisting of a length of plough-truncated ditch fill, and a pit, both containing a variety of midden materials, sherds, and discarded artefacts. Among objects from the ditch were a disc from the vertebrae of a whale measuring 30 cm. in diameter, and a polished and perforated disc of Kimmeridge shale (Fig 1.3). Finds from the pit included fragments of two combs, one of bone (Fig 1.4), and the other of ivory (Fig. 1.5). While the doubled edged bone comb fragment is a ubiquitous type found throughout the Roman and Dark Age periods, the other, of ivory, single edged with dot and circle decorations, appears to be something rather more unusual. As a terminal fragment, it is similar to that of a near complete comb in the Victoria and Albert Museum (Baldwin Brown 1915). The latter is of pyramidal-backed type with zoomorphic decoration, and is associated with the Danish period.

Another and rather peculiar find from the pit was that of the near complete skeleton of a large fish, provisionally identified as a cod of about 40 lb. weight. This piscine cadaver had not been filleted, and it seems most odd that such a large piece of prime fish should end up as refuse, unless it had 'gone off' by the time it came to hand. The writer cannot escape the thought of truant or delinquent children dragging this smelly relic back from the beach as some sort of peace offering!

(iii) Medieval, thirteenth century. This feature was a bank of flint cobbles and pebbles about 2.0 m. wide running east–west through the excavation box. It overlaid a narrow trench pierced at intervals by post-holes. From its position and angle it seems likely to be a plough eroded part of the north-eastern end of the 'Boarded Groin', a medieval sea-defence shown on O.S. maps

D.R.J.PERKINS

ONGOING RESEARCH:
THE 'MATTROSSES' SWORDS FROM H.M.S. STIRLING CASTLE

It is not generally known to the members of the Kent Archaeological Society that an affiliated group, Thanet Archaeological Society, are owners of a battleship! This vessel is the seventy-gun ship of the line H.M.S. Stirling Castle. She was built at Deptford in 1679 and refitted

(effectively rebuilt) at Chatham in 1697, only to be lost on the Goodwins in the 'Great Storm' of 1703, and discovered by a Thanet Society diving team in 1978. During the initial phase of exploration hundreds of items large and small were lifted from the wreck. Some of these are lodged with the National Maritime Museum, and others are on display at the East Kent Maritime Museum, Ramsgate. Other objects were given conservation 'first aid' and retained by the Thanet Society. They are subject to an ongoing programmed of illustration, restoration and research.

An example of this process is the work carried out on three sword hilts of matching design, having grotesque 'Dragon's head' or 'Dog of Fo' pommels, a 'Cockatrice' framed by acanthus leaves cast on the grip, and a facing lion's head on the shell guard (Fig. 2). These hilts were conserved and two were passed to the East Kent Maritime Museum for display, while at the same time (1979) drawings of them were sent to the Armouries, H.M. Tower of London. In a communication with Dave Perkins, Howard L. Blackmore dated the swords to 1690, and wondered if these were the 'brass-hilted hangers for mattrosses' referred to in Board of Ordnance records. If so he thought that they might be the first ever specifically naval pattern. The work 'matross' originated from the Dutch 'matroos' (a sailor), and thence to the French 'matelot', a term in use today.

There the matter rested until 1997 when the writer, perusing the catalogue of an auction of arms and armour to be held in San Francisco, spotted an example of such a hanger complete with its single edged slightly curved blade (Fig. 2, inset). By good fortune, a friend of the writer became interested in the sword and purchased it. On its arrival in Britain the sword was made available for study, and was compared with the three Stirling Castle hilts. Being in better condition than the latter, close examination revealed a previously undetected detail. At the back of the monster's head on each pommel was cast another head in low relief, perhaps representing a lion, (Fig. 2.a). The blade of the complete sword is of German manufacture, bearing the 'running wolf' mark of Solingen, (Fig. 2.b). This may well have been the case with the Stirling Castle hilts, German blades having enjoyed a high reputation at that time.

While none of the four hanger hilts had been cast in the same mould, their proportions and decoration are so similar as to represent a 'pattern.' Brass-hilted swords with zoomorphic pommels were made in a number of countries over the last four centuries, but in the case of the Stirling Castle hilts the writer is struck by the similarity of their decoration to that of a type of sword from Ceylon, the Sinhalese 'Kastanes." The sailors of the Dutch East India Company would have

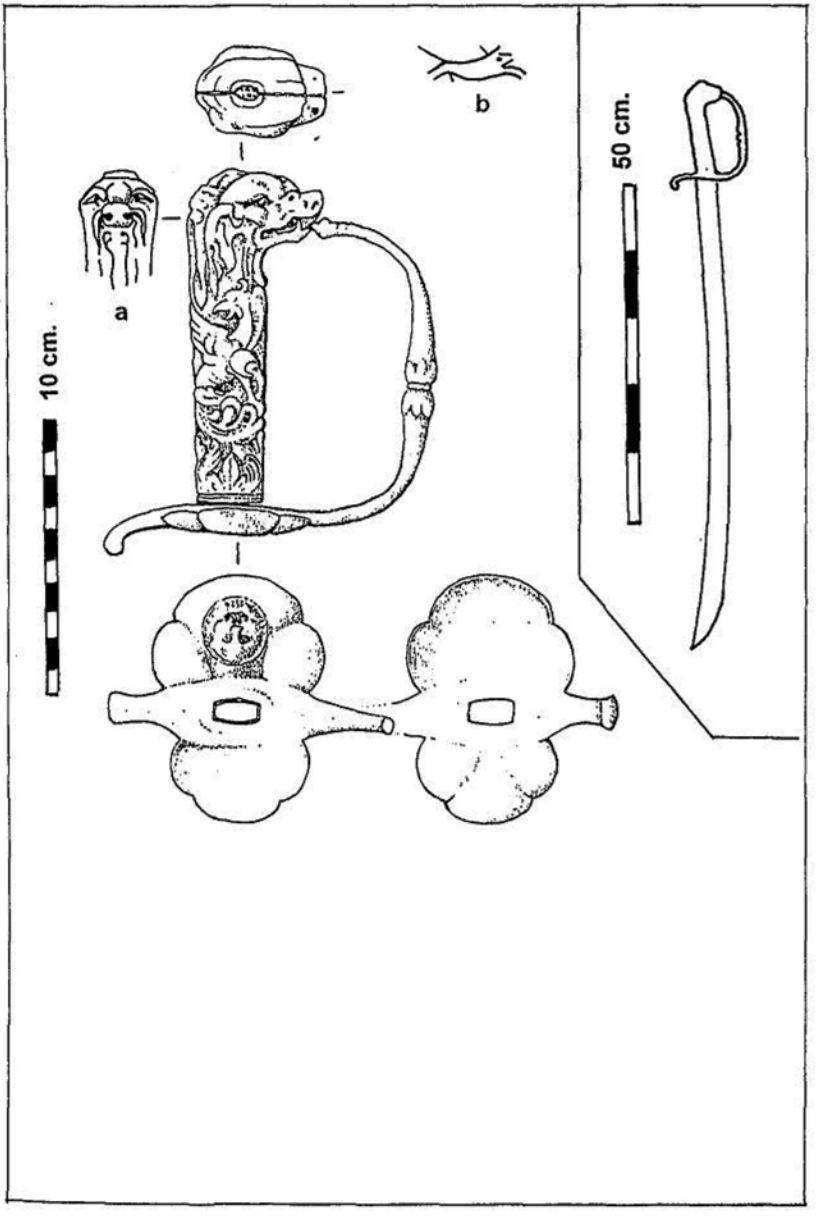

Fig. 2. One of the Stirling Castle 'Mattrosses' sword hilts and the complete sword all to scales shown.

been familiar with kastanes, and may have found them handy weapons, soon evolving their own pattern. Holland being the great sea power of the seventeenth century, that nation had imitators in all things maritime, not least among them the British. It is tempting therefore to see the Stirling Castle hilts as copies of Dutch swords, steps in an evolutionary process that makes the kastane the ancestor of all subsequent lion's head-pommel naval swords.

G.H. SLADE

DISCOVERIES: METAL DETECTOR AND CHANCE FINDS

Kent International Business Park Site

During 1994 and through the winter and spring of 1996-97 the Thanet Trust carried out an evaluation, a fieldwalking survey, excavations and watching briefs at the Kent International Business Park site at Manston, Isle of Thanet. The following finds were made:

(1) A fragment of a polychrome 'cane bead' in red white and dark blue glass (Fig.3.1). These beads are imports, and often found in Jutish graves of the sixth-seventh century.
(2) Part of upper hafting tang of a bronze axe, interpreted as of a form transitional between flat and flanged axes (Fig 3.2). This form had an extended life through the Middle and Late Bronze Ages, say 1600-800 BC.
(3) A Late Middle or Late Bronze Age pegged spearhead, found as two fragments 3 m. apart (Fig.3.3).
(4) A bronze object faced with engraved and fretted silver (Fig.3.4). This may be the plate of a Celtic equal-ended flat brooch, although no parallel can be found for it in terms of form;
(5) A medieval (probably fourteenth-century) seal of cast bronze set with an amber coloured gemstone backed with a silver plate (Fig. 3.5). The gem bears an intaglio carving of an ox, and is framed by the legend: (?) ECRETI + SIGILL. Such seals are fairly unusual, and seem to have been high prestige possessions. They were first discussed by Roach-Smith (1854) who thought the various intaglio motifs to be charms, survivals of pagan Roman traditions. The finder of the seal was not a member of the evaluation team, and after allowing it to be recorded, retained it with the agreement of the landowner. He has told the writer that it is lodged with the British Museum.

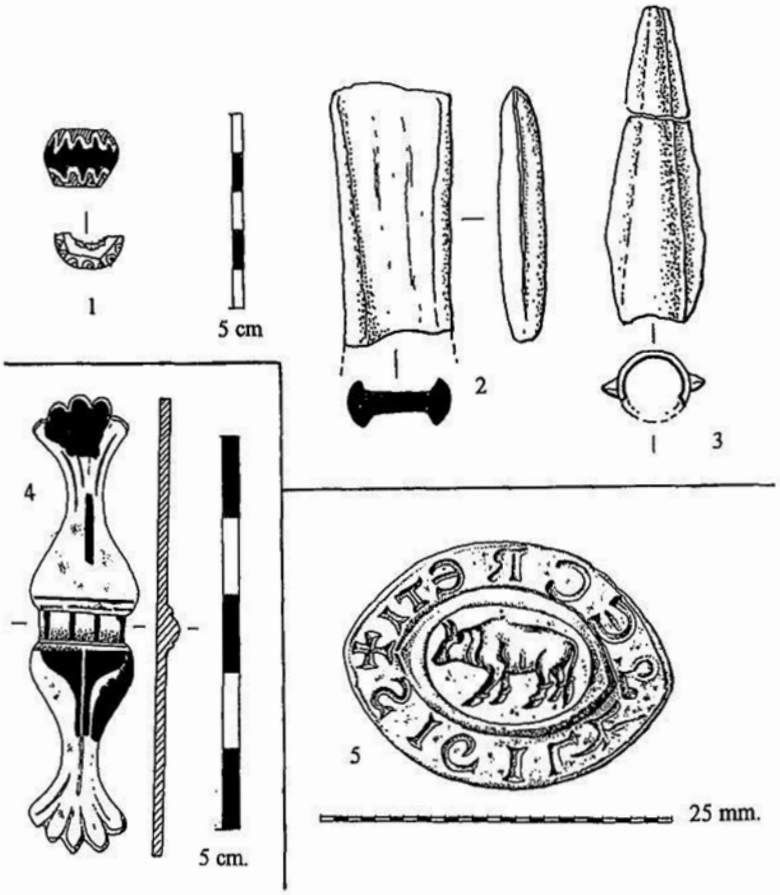

Fig. 3. Kent International Business Park area finds, all at scale as shown.

Bronzes. The Cleve Court Hoard

This hoard of eighteen bronzes was found during the infrastructure phase of development when the cut for a road was being excavated, by a Thanet Trust team member using a metal detector. Some hoard components had been moved by machine action; other, still *in situ*, had unfortunately to be recovered in haste ahead of machine stripping, so that the hoard's deposition and immediate context could

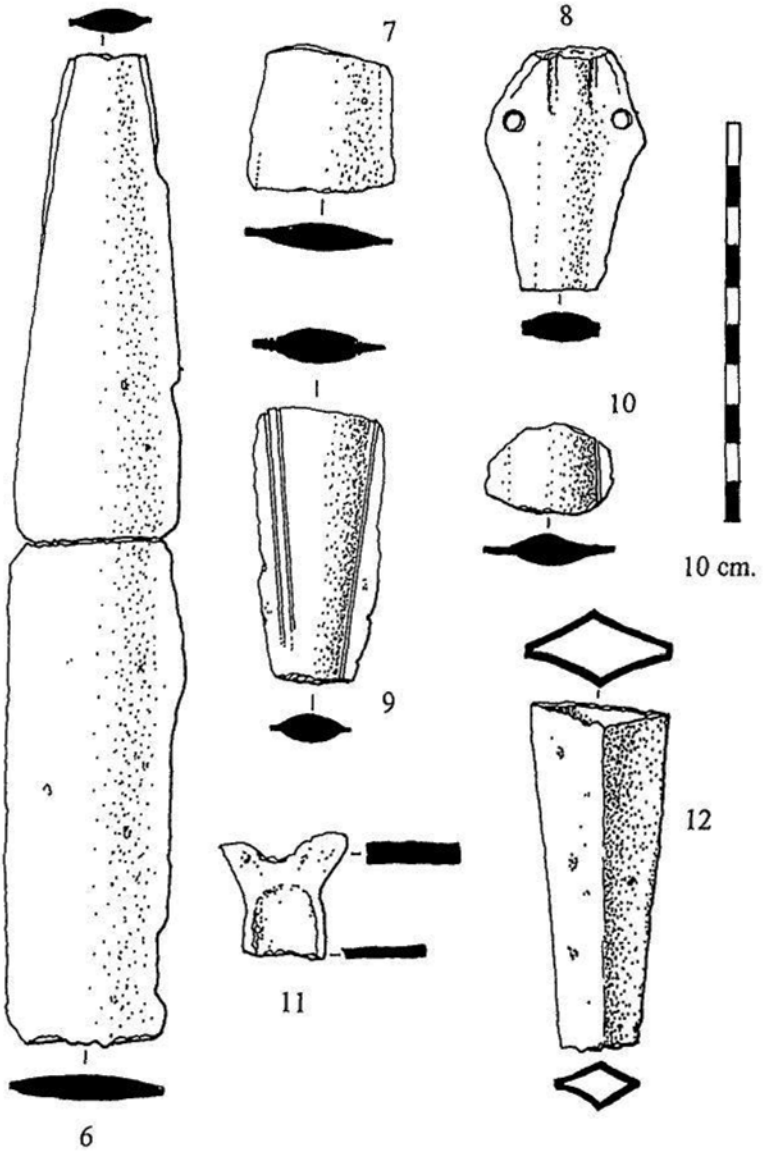

Fig. 4.1. The Cleve Court bronze hoard, objects 7-12, all at scale as shown.

not be investigated. Measurements taken at the time of discovery indicate that the artefacts were buried at a depth of roughly 0.80m. from the pre-construction agricultural field surface. A more general investigation may be carried out subsequent to cessation of infrastructure work, with the possibility of further finds and settlement remains being discovered. As numbered in Fig. 4 (numbering runs in sequence from other K.I.B. finds) the recovered bronzes were:

(6) Two joining fragments of a leaf-shaped sword blade. Only traces of the ground edges remain;
(7) A blade fragment from a sword blade similar to the above;
(8) A sword represented by a shoulder and ricasso fragment. Although badly damaged on all edges the gently curbing ricassi and two rivet holes suggest a Blackmoor type sword;
(9) An end of blade fragment with point missing from a sword of Carp's Tongue type. Incised double lines down both sides of the mid-rib;
(10) A fragment of sword blade, mid-ribbed with incised lines; of Carp's Tongue type?
(11) A corroded and damaged fragment presumed to be the pommel end and part of the tang of a sword hilt;
(12) Part of a tongue-shaped scabbard chape, mouth and end missing;
(13) A pegged spearhead, edges of blade lost by corrosion;
(14) A fragment of pegged ferrule or spearhead socket;
(15) A narrow-bladed looped palstave with trident motif decoration to the blade;
(16) A narrow-bladed looped palstave, the blade decorated with a raised mid-rib. The cutting edge has been hammered and reworked;
(17) A lower blade fragment from a socketed axe;
(18) Part of a looped palstave;
(19 to 23) (19 not illustrated) Fragments of curved bronze rod. In each example the outside of the curve is flat, and the inside ridged to give a soft sub-triangular section;
(24) Flint, a 'horseshoe' scraper found in close association with the bronzes.

This hoard can be attributed to Penard and Wilburton industries, *c.* 1200 - 900 BC, and with its preponderance of weapons and narrow-bladed palstaves, can be firmly placed in the Wilburton phase. The presence of a socketed axe fragment, and more tellingly, the Carp's Tongue sword fragments, suggest a date rather late in the Wilburton phase, close to the transition with the Ewart Park phase at about 900 BC. Evidence for the Wilburton industry is not well represented in

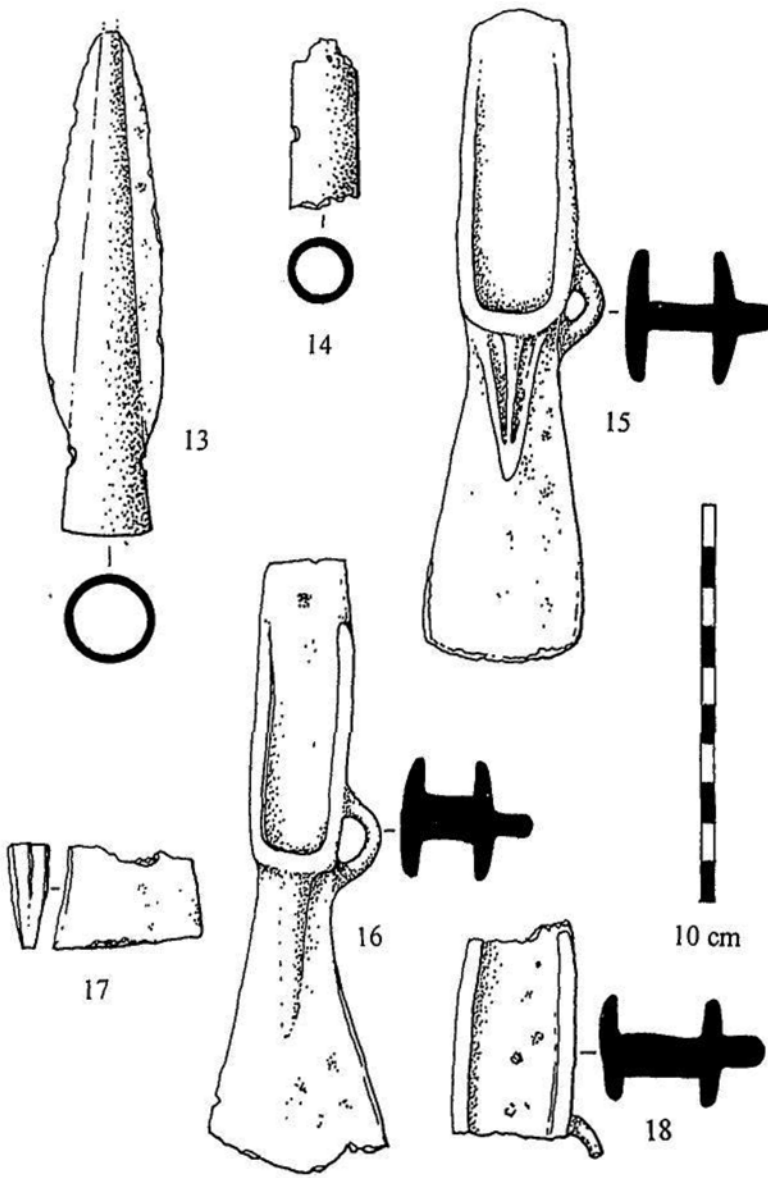

Fig. 4.2. The Cleve Court bronze hoard, objects 13-18, all at scale as shown.

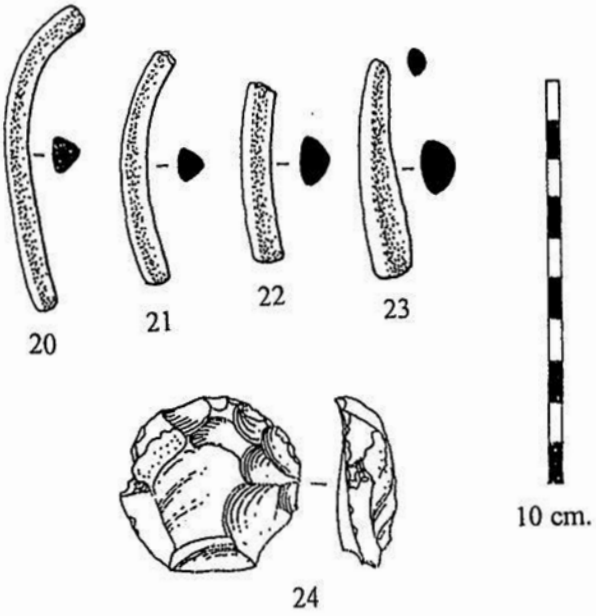

Fig. 4.3. The Cleve Court bronze hoard, objects 20-24, all at scale as shown.

Kent, especially in the north-east of the county. Exceptions are the indented socketed axes in the Sturry hoard (Jessup 1943-44), and the Blackmoor type sword from Shatterling (Perkins 1995c) The flint scraper was found in such close association with the hoard that it was felt appropriate to show it with it, as similar associations are so common as to suggest deliberate deposition.

The Hoaden (II) Bronze Hoard

A small Late Bronze Age bronze hoard was found by farmworkers at Hoaden, Ash-next-Sandwich in 1974, and reported in *Arch. Cant.* (Champion and Ogilvie 1981) During 1983 and 1984 two metal detectorists, Mr Frank Martin and Mr Derek Church, discovered a hoard of bronzes while prospecting at or near the same spot. It will never be possible to establish whether these are two distinct hoards, or, as seems most likely, the same hoard being brought progressively

nearer the surface by plough attrition. The bronzes of the 1983/4 discovery were taken to the old 'Thanet Archaeological Unit' headquarters at Cavendish Street, Ramsgate, and were then dispatched to the British Museum, where they remained for over five years until reclaimed by their owners. Over the following years, efforts to contact the finders were made by the Trust for Thanet Archaeology, culminating in July 1998 when Mr Martin telephoned the Trust. As a result the hoard has now been properly recorded so as to be catalogued and illustrated and discussed herein.

The Hoaden (II) hoard consists of 107 pieces of bronze, of which 72 are parts of various tools and weapons etc. (Fig. 5.1, 2, 3) and 35 are fragments of bun ingots. The total weight of the hoard is 7.32 kg. of which ingot fragments account for 3.42 kg. A number of the objects show evidence of having been in the crucible, as they are part melted or bear deposits of dross. In composition the hoard is as follows:

Sword blade fragments, 'Carp's Tongue' type:

Objects 1 to 9 are blade fragments from Carp's Tongue swords. Although some blade sections are similar, there are no obvious joins. Fragment 9 is from the base of a blade where the cutting edge ends at the notch of the ricasso. Fragments 10 and 11 are blade points.

Sword blade fragments, 'Ewart Park' type:

Objects 12 to 22 are blade fragments from swords in the Ewart Park tradition, some showing cast and ground cutting edges. Fragments 20 and 21 appear to be from the same blade.

Spearhead fragments:

Objects 23 to 26 are point fragments from socketed spearheads. Fragment 26 has been hammered and folded so as to close the socket.

Winged axes:

Three of these were present, object 27 being complete, 28 having the hafting tang broken off, and 29 lacking the blade.

Socketed axe fragments:

Objects 30 to 43 are collar and upper body fragments from socketed axes, with 31 and 32 being probably from the same mould. Objects 44 to 51 are lower body and blade fragments. Numbers 47 and 50, both crescentic edged blades, show evidence of annealing and re-working.

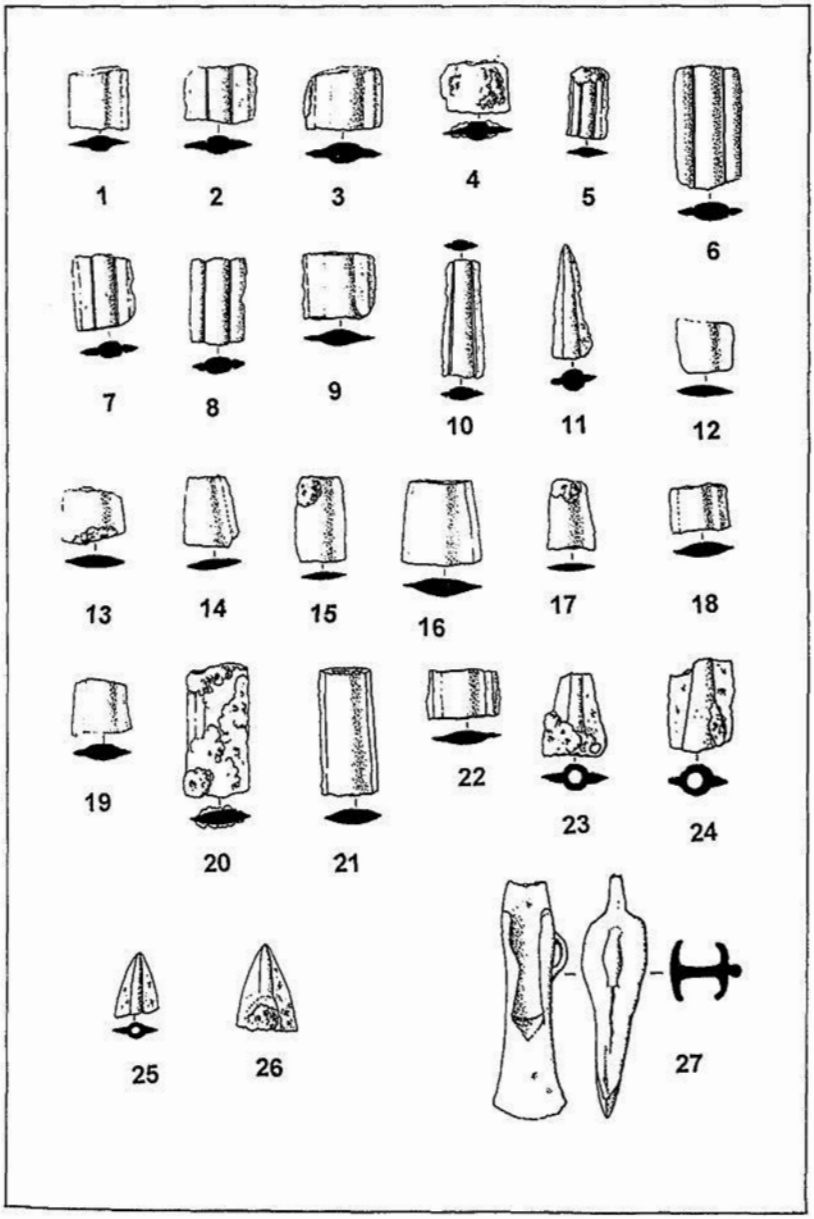

Fig. 5.1. The Hoaden II hoard. Objects 1-27 (Scale: ¼)

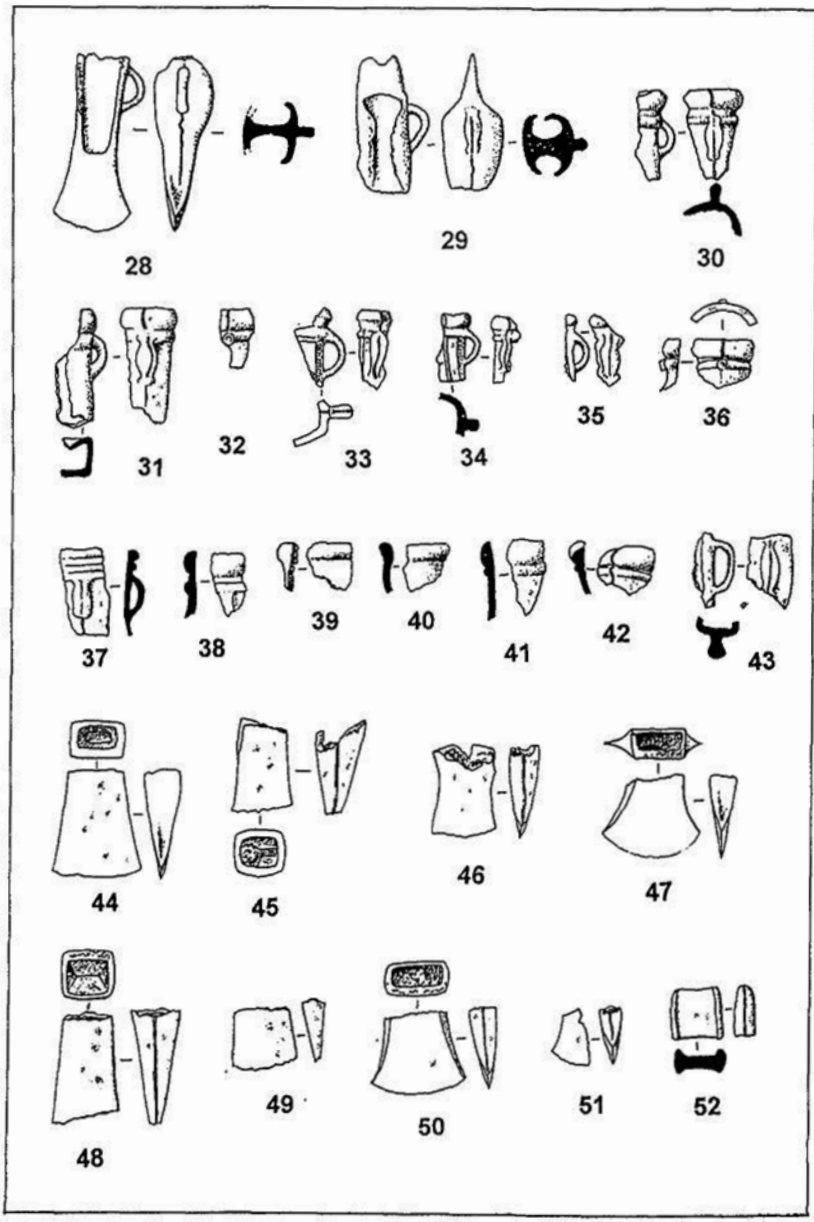

Fig. 5.2. The Hoaden II hoard. Objects 28-52 (Scale: ¼)

Flanged axe:

Object 51 appears to be an upper tang fragment from a flanged axe.

Tools:

Objects 53 and 54 are blade end fragments from, respectively, a socketed gauge and a socketed chisel. Object 55 is the tang-end of, presumably, an awl; and object 56 is a fragment embodying part of the tang and blade of a double-edged knife.

Miscellaneous objects:

Object 57 is a hemispherical cross-bar button of the 'Heathery Burn' type.

While the corrosion product patina of object 58 is in keeping with the rest of the hoard, it might be a fragment from a 'Crotal Bell', medieval or later.

Objects 59, 60, and 61 are curved fragments of cast bronze rod, presumably from bracelets.

The nature and function of object 62, apparently a broken-off finial, is open to a number of interpretations, among them, as a tying-off point for harness on a wheeled vehicle (pers. comm. Sonia Hawkes).

Object 63 is a semi-circular blade fragment having what appears to be an off-set rivet hole. Another hole may be present, but concealed under slag deposits. Part of a razor?

While fragments 64 to 67 are enigmatic, object 68 appears to be a flat collar set with a central rivet hole, and retaining the broken end of an object of blade-like section.

Object 69(a) and (b) is a composite of two fragments fused together in the crucible. The first (a) is part of the collar and upper body of a socketed axe, united with (b), fragment of folded sheet bronze pierced by a rivet hole. The latter could be part of a sword scabbard mount.

Object 70 appears to be a body fragment from a bronze vessel. It is cast with a cordon, and above this a horizontal linear decoration, presumably incised on the mould matrix.

The two objects shown as 71 and 72 bear a patina quite unlike the other hoard components, having an annealed fire blackened appearance. Such finds, of which the foregoing patina is typical, are usually identified as medieval cauldron legs and feet. The writer is struck nevertheless by the regularity of their occurrence in close association with Late Bonze Age hoards, for example the Shuart hoard (Perkins 1988).

Objects 73 to 107 are bun ingot fragments. They are not illustrated as none are diagnostic in terms of the diameter, depth and sectional profile of their parent ingot.

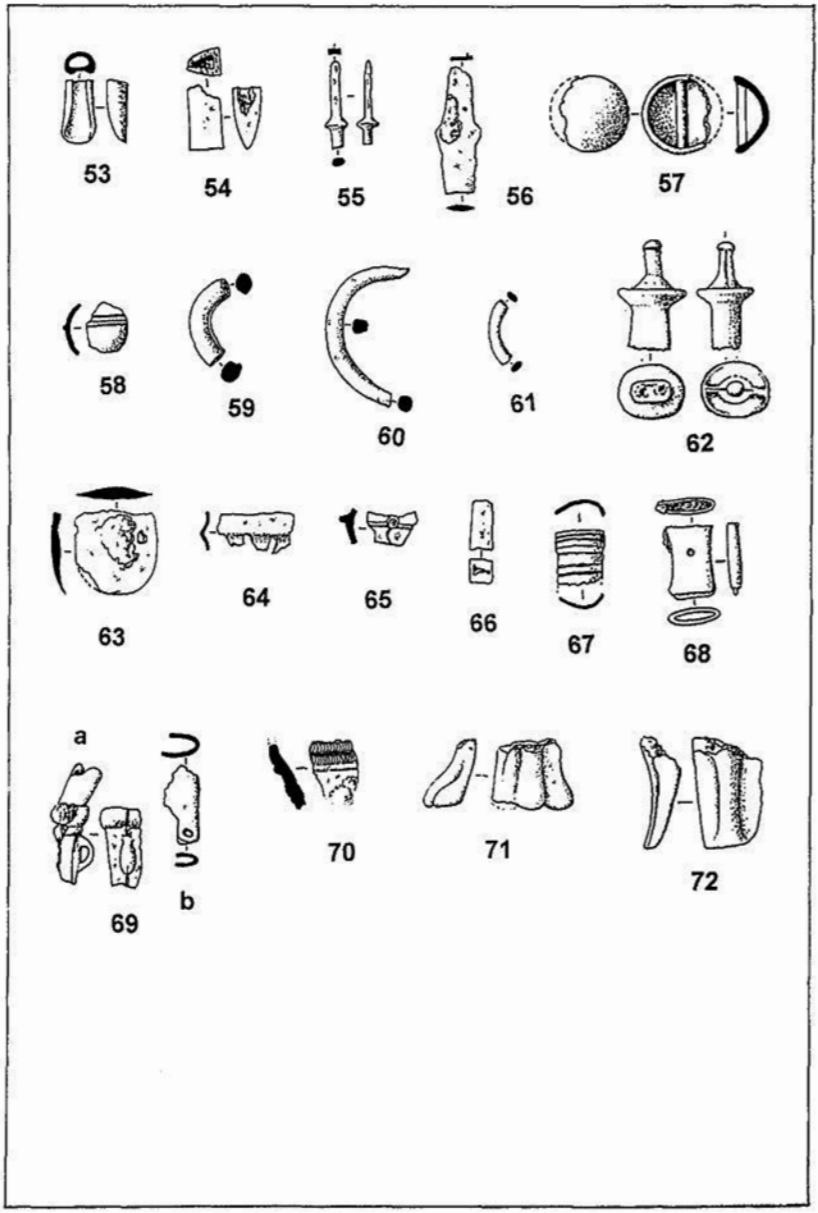

Fig. 5.3. The Hoaden II hoard. Objects 53-72 (Scale: ¼)

Discussion

The Hoaden I and II assemblages of bronzes appear to represent a typical hoard in the Late Bronze Age Carp's Tongue/Ewart Park south-eastern tradition. Only the presence of winged axes, presumably imports from north-eastern France (O'Connor 1980) grants them an almost unique status, although given the sea-bed finds from Langdon Bay, Dover, (Coombs 1975) their eventual appearance in north-east Kent was predictable.

Considered in terms of dimensions and weight, the bun ingot fragments are not without interest. As a population, the maximum lengths of fragments had a mean of 44.6 mm., with a standard deviation (1σ) of 9.6 mm. For population of weight, however, the mean was 97.8g., with a standard deviation of 76.6g. From this it is tempting to see these fragments as having been broken off from the upper surface of the ingot according to a visual estimate of convenient size, the depth (weight) of the fragment not being considered.

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THE NAME OF THE RIVER CRAY

The river Cray (formerly in Kent, but now in Greater London) rises near Orpington, and runs north-east past St Mary Cray, Foots Cray, and Crayford to meet the Darent, which itself flows into the Thames just a mile north. *Cray* has long been recognized as a Celtic name, so that Ekwall identified it with the names of Cray Gill in west Yorkshire and the river Crai in south Powys. He suggested the meaning 'fresh, clean', citing the Middle Welsh adjective *crei* in support of this.[1] The interpretation of *Cray* as 'fresh, clean, pure' is repeated by later scholars.[2]

Does this explanation withstand scrutiny? It is true that modern Welsh dictionaries define crai as 'fresh', and the Cray, a river on chalk, is no doubt a 'fresh' stream. Nevertheless, if we are to be sure that *crai* meant 'fresh' as early as the fifth century (when the name of the Cray was borrowed by English), the whole history of the word must be investigated.

Modern Welsh *crai* is translated by standard dictionaries as 'new, fresh, raw'.[3] The University of Wales dictionary gives the meanings 'new, fresh; raw, crude; bare, rough; severe, sad; unleavened (of bread); unfulled (of cloth); clear, pleasant'. It also records *crei* as a noun in Middle Welsh meaning 'meat, raw meat, flesh'.[4] Lloyd-Jones's monumental glossary of early Welsh gives the meaning 'uncooked, raw, bare, rough, only.[5] None of these dictionaries gives the meaning 'clean' or pure cited by Ekwall and others.

The great Welsh scholar Sir Ifor Williams noted that *crei* is used in early texts of a winter wood, a cloth, a sad mood, a ruined house, and corpses.[6] These suggest the original meaning of the work was something more negative that 'fresh'. If we look at these and similar instances in detail, we may reach a more exact understanding of the river-name *Cray*.

What seems the earliest instance occurs in the *Gododdin*, a series of laments for North British warriors wiped out in an attack on Catterick about the year A.D. 600. Though these heroes were slain, they slew:

[1] Eilert Ekwall, *The Concise Oxford Dictionary of English Place-Names*, 4th edn (Oxford, 1960), 129.

[2] P.H.Reaney, *The Origin of English Place-Names* (London, 1960), 77; Margaret Gelling, 'Crayford', in (Ed.) W.F.H. Nicolaisen, *The Names of Towns and Cities in Britain* London 1970), 79.

[3] *Collins-Spurrell Welsh Dictionary*, (Ed.) Henry Lewis (London, 1960), 51; Y Geiriadur Mawr, (Ed.) H.M. Evans and W.O. Thomas, 5th edn. (Llandysul, 1971), 101.

[4] *Geiriadur Prifysgol Cymru* (Caerdydd, 1950-), 578.

[5] John Lloyd-Jones, *Geirfa Barddoniaeth Gynnar Gymraeg* (Caerdydd, 1931-63), 172.

[6] *Canu Aneirin*, (Ed.) Ifor Williams (Caerdydd, 1938), 106.

'they attacked harshly (*crei*), they collected booty, the noise of their shields was loud, like thunder.'[7] Slightly later is an elegy on prince Cynddylan, which describes a raid on England: 'Before Lichfield they caused it, carnage under ravens and harsh (*crai*) attack, they broke shields in contention, the sons of Cyndrwynyn.'[8] An engmatic ninth-century poem 'The Sick Man of Abercuawg' dwells on suffering; 'Sorrowful (*crei*) are my thoughts from the affliction of illness.'[9] A prophecy of war written after the battle of Brunanburh (*cat Tybrud-awd*) in A.D. 937 speaks of vengeance in a shower of swift arrows, and of Menai as a *crei gyflogawt* 'harsh place'10 An eleventh-century poem on winter and warfare describes an icy landscape, the wind keen, reeds withered, and woodland bare (*creilum*).[11] In a lament for Owain Gwynedd (*d.* 1170), Cynddelw refers to 'powerful blades in carnage, in fresh (*krei*) corpses.'[12] The thirteenth-century bard Elidir Sais describes Holy Week: 'Friday, it was harsh (*crei*), it was bloody, / The Cross of our Father, our entire oppression.'[13] Here *crei* might also be translated 'grevious, sorrowful'. The modern sense 'fresh' is apparently first recorded in a medical text in a fourteenth-century manuscript, which describes how to cure a patient by putting a certain item 'under his head in a fresh (*krei*) cloth .[14]

In a Welsh Bible translation of the sixteenth century *crai* is used of unleavened bread, and of the piece of new cloth placed on an old garment (Matthew 9:16); in the seventeenth century, we find it used of sin and the newly-dead; only in the eighteenth century do we find it used of fresh fish, fresh milk, fresh paint. In Middle Breton the work *crai* moved in the opposite direction, since it there means 'sour'.[15]

It will be seen that *crai* long retained an idea of the harsh, rough, raw, sad, and bare and that it was used in the context of battle and suffering. It originally meant 'fresh' in the sense of a 'fresh wound', which is raw and grievous. It was not used for 'fresh' in the sense 'not stale' (of food

[7] Williams, 5; K.H.Jackson, *The Gododdin: The Oldest Scottish Poem* (Edinburgh, 1969) 121; on the poet, cf. A.C. Breeze, *Medieval Welsh Literature* (Dublin, 1997), 13-17.

[8] Geraint Gruffydd, 'Marwnad Cynddylan', in his *Bardos* (Caerdydd, 1982), 10-28, at 20; cf. *Early Welch Saga Poetry*, (Ed.) Jenny Rowland (Cambridge,1990), 177.

[9] Rowland, 449 and cf. 498.

[10] Ifor Williams, *Chwedl Taliesin* (Caerdydd, 1957), 22-3.

[11] *Early Welsh Gnomic Poems* (Cardiff, 1935), 20.

[12] *Llawysgrif Hendregadredd* (Eds.) John Morris-Jones and T.H. Parry-Williams (Caerdydd, 1933), 94

[13] *Hen Gerddi Crefyddol*, (Ed.) Henry Lewis (Caerdydd, 1931), 77.

[14] *Geiriadur*, 578; cf. Breeze, 32, 91.

[15] *Geiriadur*, 578.

and so on). Nor was it used of fresh water, for which the Welsh words are *croyw* and *ir*.[16]

Once all this is grasped, we can establish the meaning of *Cray*. There seems little doubt that its original meaning was 'rough' in the sense of having turbulent waters, neither smooth not placed. In this the Cray would have formed an obvious contrast with the nearby Thames. We may compare the use of *garw* 'rough' (as in *Nantgarw* 'rough valley, rough brook') and *geirw* 'ripples, foam, waves, rapids' as a name for many streams and rivers in Wales.[17] We also find (with opposite meaning) the name *Llynfi*, from *llyfn* 'smooth, even, sleek'.[18] The interpretation of the name of the Cray as 'rough, turbulent' becomes still more likely when we look at the river Crai in Powys and Cray Gill in Yorkshire. Both run through wild regions: the Crai parallel to the Swansea-Brecon road on the north side of the Brecon Beacons, and Cray Gill in one of the remoter parts of Yorkshire.

Correct understanding of the name of the Cray is important for *linguists*. But it also has some significance for historians. The *Anglo-Saxon Chronicle* for A.D. 457 records that Hengest 'fought against the Britons in the place which is called Crayford and there killed 4,000 men; and the Britons then abandoned the land of Kent and in great terror fled to the stronghold of London.'[19] Although the idea of a battle at Crayford (where a Roman road crosses the last major river before London) makes military sense, Dorothy Whitelock and others have observed that neither *Creacanford* nor *Crecganford*, the two forms in the *Chronicle*, fits the common identification with 'Crayford'.[20] However, if Celticists could establish the British form giving Middle Welsh *crei* and Middle Breton *crai*, we would be in a better position to know whether the *Chronicle* text has suffered corruption or not. Celticists should also consider the evidence of the *Chronicle* entry in their attempts to discover the ancestor form of the Welsh and Breton words.[21]

ANDREW BREEZE

[16] *Geiriadur*, 613, 2026.

[17] R.J. Thomas, *Enwau Afonydd a Nentydd Cymru* (Caerdydd, 1938), 205-6; *Geiriadur*, 1388; Rowland, 599.

[18] Thomas, 159-61

[19] *The Anglo-Saxon Chronicle*, tr. M.J. Swanton (London, 1996), 12.

[20] Gelling, 79; F.M.Stenton, *Anglo-Saxon England*, 3rd edn (Oxford, 1971), 16-17; *English Historical Documents c. 500-1042*, (Ed.) Dorothy Whitelock, 2nd edn. (London, 1979), 154.

[21] On which cf. Joseph Vendryes, *Lexique étymologique de l'irlandais ancien : Lettre C* (Paris, 1987), 249.

WEST HYTHE WASTEWATER TREATMENT WORKS (TR 125 329)

A programme of archaeological investigations was carried out by R.P.S. Clouston (R. Masefield) following a specification drawn up by K.C.C. Heritage Conservation Group. Geophysical ground survey of the area at Botolph's Bridge Road, West Hythe, where the treatment works were to be extended, guided the positions of seven evaluation trenches. Palaeoenvironmental samples were extracted by Archaeoscape Consulting from three test pits dug along the route of a new pipeline.

The site is within an area of medieval fields where the archaeology has been much affected by shifting sea levels and modifications of the coast line. It lies between the 'new marsh' of the Hythe marine inlet and a fossil shingle spit that underlies Dymchurch and extends towards Hythe. Terminal recurves on the landward side of this gravel spit, which are known in the Dymchurch area, have created conditions suitable for land reclamation and settlement.

No archaeological material was discovered during the programme of works other that a small amount of medieval pottery distributed within the former ploughsoil. In two of the trial trenches and one of the test pits a layer of well-sorted pebbles was found lying below and above waterlaid alluvial deposits. The layer below the shingle, similar to the lowest unit sampled in the other two test pits, was consistent with origin in a coastal mud/sand flat environment. The shingle was interpreted as the extreme distal portion of the terminal recurve of a gravel spit with the western and northern edges of recurve exposed in the evaluation trenches.

The opportunity to observe, and possibly date by fossil assemblages, the shingle spit that formed the barrier to the Hythe marine inlet, has archaeological significance, especially in its relationship to the medieval maritime port of Hythe and Roman naval anchorage of *Portus Lemanis.*

MAUREEN BENNELL

SWALECLIFFE WASTEWATER TREATMENT WORKS (TR 134 674)

Following a recommendation made by K.C.C. Heritage Conservation Group, an evaluation was carried out by M. Bennell for R.P.S. Clouston before enhancement of the wastewater treatment works at Brook Street, Swalecliffe.

Sediments exposed in the sea cliff in this area, where two differing terrace levels flank a buried former stream valley, have been recognised since the mid-nineteenth century as of palaeoenvironmental interest. The continued retrieval on the foreshore of faunal material from at least two Late Pleistocene assemblages and cultural material from a variety of periods, presumed by their condition to be eroding from primary contexts, confirms the significance of the area.

Although much of the site had been disturbed previously, trial trenching located a truncated feature, possibly a ditch terminal, containing early prehistoric pottery. Palaeoenvironmental sampling by Archaeoscape Consultants confirmed that sedimentary sequences deposited during the climatic deterioration at the end of the Last (Ipswichian) Interglacial were still intact on part of the site.

A watching brief was carried out during construction works by R. Masefield which located a prehistoric pit and a small amount of flint work. Two mammoth tusks and the tooth of a woolly rhinoceros, dating from 50,000 to 100,000 years B.P., were found in a shallow gravel deposit on top of the London Clay, and another mammoth tusk was retrieved from made-ground elsewhere on the site. Additional palaeoenvironmental sampling and analysis identified an intact sequence of water-laid deposits, similar to those recorded earlier in the century, which implied the presence of a suggested palaeochannel of the Stour in the Swalecliffe area.

Both phases of the work were funded by Southern Water Services. Thanks are due to T. Allen for permission to read his recent paper on the geomorphology of the area.

MAUREEN BENNELL

SOME RADIO-CARBON DATES FOR PREHISTORIC EAST KENT

The Dover Archaeological Group has now obtained a total of fifteen radio-carbon dates for sites recently investigated in east Kent. The complete list is set out below as a contribution to prehistoric studies within the county.

MILL HILL, DEAL

Multi-period site on the chalk ridge above Deal; N.G.R. TR 3631 5074, epicentre (*Refs*; Parfitt 1990; 1995; Parfitt and Brugmann 1997).

Neolithic

Grooved Ware pit, SRD F. 428; cow bone
OxA-7441 4105 ± 45 BP; 2870 – 600 BC (68 per cent confidence)
2880 – 2500 BC (95 per cent confidence)

Grooved Ware pit, CRD F. 1; Sheep/goat bone
OxA-7531 4020 ± 60 BP; 2860 – 2470 BC (68 per cent confidence)
2870 – 2450 BC (95 per cent confidence)

Bronze Age

Primary silt of prehistoric ring ditch, SRD F. 200; red deer antler
OxA-7443 3420 ± BP; 1870 – 1680 BC (68 per cent confidence)
1880 – 1620 BC (95 per cent confidence)

Filling of pit, SRD F. 413 cutting secondary fill
or ring ditch, SRD F. 200; carbon
Bet-106449 2660 ± 80 BP 855 – 790 BC (68 per cent confidence)
940 – 760 BC or
635 – 560 BC (95 per cent confidence)

Iron Age and Roman

Grave 5; human bone (financed by K.A.S.)
HAR-8444 2390 ± 60 BP; 755 – 705 BC or
535 – 395 BC (69 per cent confidence)
765 – 385 BC (95 per cent confidence)

Grave 15; human bone
OxA-2966 1975 ± 70 BP; 80 BC – 85 AD (68 per cent confidence)
170 BC – 145 AD or
165 – 195 AD (95 per cent confidence)

Gave 20; human bone
OxA-2967 2030 ± 65 BP 155 – 145 BC or
120BC – 55 AD (68 per cent confidence)
200 BC – 115 AD (95 per cent confidence)

Grave 29; human bone
BM-2867 1630 ± 35 BP 345 – 450 AD (68 per cent confidence)
335 – 535 AD (95 per cent confidence)

Grave 31; human bone
BM-2868 2130 ± 50 BP 355 – 310 BC or
210 – 95 BC (68 per cent confidence)
356 – 275 BC or
265 – 45 BC (95 per cent confidence)

Grave 44; human bone
OxA-2968 1950 ± 70 BP 40 BC – 125 AD (68 per cent confidence)
115 BC – 225 AD (95 per cent confidence)

Grave 53; horse tibia
OxA-7440 2185 ± 45 BP 360 – 190 BC (68 per cent confidence)
390 – 120 BC (95 per cent confidence)

Grave 54; human bone
Oxa-7442 2195 ± 45 BP 370 – 200 BC (68 per cent confidence)
390 – 120 BC (95 per cent confidence)

Grave 110; human bone
BM-2840 1860 ± 35 BP; 90 – 95 AD or
110 – 215 AD (68 per cent confidence)
75 – 230 AD (95 per cent confidence)

LYDDEN VALLEY, HACKLINGE

Submerged prehistoric land-surface located to the north of Deal at the southern end of the former Wantsum Channel (*Ref*: Halliwell and Parfitt 1985).

Hacklinge, Field 4; N.G.R. TR 3451 5495; carbon from a hearth rake-out; sealed under alluvial clay and peat
HAR-6213 3030 ± 90 BP; 1380 – 1260 BC (68 per cent confidence)

EYTHORNE, ROUND BARROW N.W. OF HAYNES FARM;
N.G.R. TR 2716 4869

Ploughed-out, triple ditched round barrow; partially examined in 1982. (*Refs*: Hasted 1800, Parfitt 1982; 1986; Grinsell 1992, Eythorne 1; Cambridge University air photo ref; CJE 45).

Primary filling of outer ring-ditch; carbon deposit
Beta-106448 3400 ± 70 BP; 1755 – 1615 BC (68 per cent confidence)
1885 – 1515 BC (95 per cent confidence)

Comments

The dates for the Mill Hill pits producing later Neolithic Grooved Ware represent the first radio-carbon determinations for the

pottery-type available from Kent. The dates fall within the known range of Grooved Ware production and suggest that the two small pits, situated about 80 m. apart, were more or less contemporary.

The result from the antler fragment found in the primary filling of the large ring-ditch on Mill Hill (F.200), which presumably related to an otherwise destroyed round barrow, indicates that the ditch was constructed sometime during the Early Bronze Age. The closely comparable date obtained from a carbon deposit in the base of the outer ditch of the triple ditched barrow site at Eythorne suggests that both single ditched structures like that on Mill Hill and more complex, multi-ditched monuments were being erected around the same time in east Kent.

The date for carbon contained within a shallow pit (F. 413) cutting into the secondary filling of the Mill Hill ring-ditch suggests that the ditch was substantially silted by the end of the Bronze Age. Subsequently, large quantities of struck flint were deposited in the top of the ring-ditch.

The single determination from the hearth rake-out found sealed under the alluvium of the Lydden Valley at Hacklinge indicates that some areas of what were later to become an extension of the Wantsum Channel were not inundated until at least the later Bronze Age.

The Mill Hill site produced an important series of inhumation burials which date principally to late Iron Age-early Roman times and to the pagan Anglo-Saxon period. The somewhat limited dating evidence provided by the grave-goods associated with the Iron Age-Roman burials is now supplemented by the eight radio-carbon dates listed above, although the precision of these has been affected by the problems of calibration that occur during this period.

The earliest Iron Age burial identified (Grave 5) was an unaccompanied crouched inhumation. The radio-carbon determination indicates that it belongs to the early-middle Iron Age. The later Iron Age-early Roman inhumations totalled about forty in number and on the evidence of the carbon dates, seem to cover a period between the third century B.C. and the second century A.D. Two of the earliest dated burials in this group are that of a complete horse (Grave 53) probably buried next to his owner (Grave 54). The determination from these graves suggest that a rich warrior, Grave 112, dated by its associated metal grave-goods to *c.* 200 – 175 B.C., need not now be considered as the earliest in the later Iron Age series, as has been previously suggested.

The dating for Grave 29 indicates that it is related to the Anglo-Saxon cemetery, rather that the Iron Age-Roman graves.

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