

Varna and early metallurgy

Dr Prentiss S. de Jesus was moved to send us this note after reading Professor Renfrew's article in this journal two years ago (1978, 199–203). Pressure on space has held back its publication, but we feel that the discoveries are so exciting that some further remarks are appropriate. Dr de Jesus is a Research Associate at the Institute of Archaeology in London, where he took his PhD. He was director of the American Research Institute in Turkey from 1972–4, during which time he surveyed parts of Turkey for ancient metallurgical remains. This year he published a book on the metallurgy of Anatolia.

All metallurgies did not always take the same direction of development, as Professor Renfrew (1978) has pointed out in the case of the Varna gold finds. This is due to a large extent to the type and location of raw materials, but also to the special requirements of particular societies. Practicality does not always seem to have been the principal motivation behind metallurgical development. More comes into play than just the existence of materials in certain regions.

It is surprising, for instance, that on the archaeological record Mesopotamia (Tepe Gawra XII = end of Ubaid) (Tobler, 1950, 193), where deposits of metal and ore are meagre, became familiar with gold before Anatolia which has its own reserves. Moreover, the occurrence of a twisted gold wire at Ur (Ubaid period) (Woolley, 1931, 344) is the earliest example of any metal in Southern Mesopotamia.

Anatolia's first gold turns up in Troy I (Schliemann, 1881, 251), hence comparatively late with respect to Mesopotamia and Southeast Europe. Yet, the earliest-known copper tools (Cayönü) (Braidwood and Çambel, 1970, 51) and the earliest bronzes (Mersin) (Esin, 1969, 144–5) come from Anatolia. The rise of gold metallurgy in Central Anatolia coincides with the establishment of what may be described as an elite society at Alaca, and this is a case which may be similar to that of Varna, though much later in time. Alaca's pottery could almost be classed as sub-standard, but not its metalwork. It is evident that this tomb material

catered for a chosen few and that their demands in terms of imagery, religious symbolism and metal quality were quite sophisticated. With Alaca's destruction in Level 5 the manufacture of gold objects appears to have declined drastically. Even after the recurrence of periods of affluence, goldworking never regained its former eminence. Although contemporary at one stage with Alaca, the site of Alishar to the south produced no gold objects of note throughout its entire history, perhaps due to its more egalitarian outlook. This is, in fact, the impression we have when looking at the majority of Anatolian metalwork. Hence, with the exception of Alaca in EB II and later Troy, Anatolia is an area which, globally speaking, had different priorities from those of its neighbours. These priorities may have been social in character, as Professor Renfrew suggests. This does not mean that a social structure based on class distinction or a 'chiefdom' necessarily determined the development of precious metals, but it is definitely an extremely interesting concept to pursue and test with future discoveries.

To try to reconstruct social strata is touchy business but an effort worth making. Too often we archaeologists tend to hide behind our reports on pot profiles and analyses and feel that our job is done. We should not forget that all our work must somehow relate back to the principal subject which is man and his society.

To return to the problem of early metallurgy, Muhly's remark that 'there is very little gold before 3000 BC, just as there is little or no tin' (Muhly, 1977, 76) is typical of many a careless assessment prevalent in the archaeological literature. First of all, to whose '3000 BC' is he referring, now that our 'traditional' dating scheme has been turned topsy-turvy with the introduction of C14 dating, bristlecone pine calibration and more careful dating procedures? Secondly, to cast aside those single occurrences of metal simply because there are only a few or because they are isolated is not facing up to the problem. Quantity is not always a good indicator. A decade ago when Aibunar, Rudna

Glava, and Varna were as yet unknown most archaeologists had the impression that Southeast European metallurgy lagged behind that of Anatolia, the Aegean and Mesopotamia. Just a few discoveries have entirely reversed that picture. For Northwest Anatolia it is principally the Kumtepe-Troy (Hissarlik) sequence that is used as our measuring stick, and while most archaeologists feel that the two sites probably represent the level of crafts and industries in the Anatolian EB I-II periods, they are unique only because they have been excavated, unlike scores of other mounds in that region of Anatolia which have not. Had Beycesultan not been excavated down to chalcolithic levels we would probably consider Western Anatolia a chalcolithic wasteland. Hence, our interpretations are very often based on one or two sites and fragmentary survey data, which is a shaky position to be in. Nevertheless, even single occurrences, especially in the case of metallurgy, are extremely important to our assessment of early cultures. A single find such as gold in the early

phases of metallurgical history carries with it its own implications. If there is one piece, there are others elsewhere.

Metallurgy does not sprout up overnight. It is the result of a long series of trials and errors. Every beginning is necessarily small, and the early occurrences of metalwork, however scattered and sparse they might be, bring us closer to understanding the mechanisms which gave birth to the industry.

- BRAIDWOOD, R. & H. ÇAMBEL. 1970. An early farming village in Turkey, *Scientific American*, 222, 50-6.
 ESIN, U. 1969. *Kuantitatif spektral analiz yardımıyla anadolu'da baslangıcından asur kolonileri çağına kadar bakır ve tunç madenciliği* (Istanbul).
 MUHLY, J. 1977. The copper ox-hide ingots and the bronze age metals trade, *Iraq*, xxxix, 73-82.
 RENFREW, C. 1978. Varna and the social context of early metallurgy, *Antiquity*, lII, 199-203.
 SCHLIEMANN, H. 1881. *Ilios* (London).
 TOBLER, A. 1950. *Excavations at Tepe Gawra, II* (Philadelphia).
 WOOLLEY, L. 1931. Excavations at Ur, 1930-1, *Antiq. J.* xi, 343-81.

The Derrynaflan hoard

PLATES XXI-XXIII

In the spring of this year, by the use of a metal detector, a hoard of early Christian objects of eighth-century date was turned up, and was acquired as Treasure Trove by the National Museum of Ireland in February 1980. The Director of the Museum, Dr Breandán Ó Riordáin, has very kindly found time to accede to our request for some photographs and a preliminary note for our readers. We are very grateful to him. A preliminary report on the objects and the find place is in course of preparation by the Keeper of Irish Antiquities, Mr Michael F. Ryan and his colleagues, Eamonn P. Kelly, Raghnaill O Floinn and Mary P. Cahill.

The hoard, which consists of a silver chalice, a large silver paten together with its stand, a gilt bronze strainer and a large bronze basin, was discovered concealed in the soil at the ancient monastic site of Derrynaflan* which is sited on a 60-acre (24-ha) island of what is now pasture land in an extensive peat bog near Killenaule and Littleton, Co. Tipperary. The inverted bronze basin had protected the other objects, all of which had originally been deposited in a pit in the ground. The pit was found to lie within the confines of a rectangular structure. At the time of writing archaeological excavations are being carried out with a view to establishing the date of the structure

and the possible date of deposition of the hoard. Present indications are that the hoard was deposited in the post-Viking period.

The two-handled chalice (PL. XXI), which is quite similar in appearance to the Ardagh Chalice, is decorated with panels of gold filigree, and with settings of amber. The chalice is 17.9 cm high and 21 cm in diameter at the rim.

From a technical and art historical viewpoint the most interesting object in the hoard is the paten (PLS. XXIIb & XXIII) which measures 37 cm in diameter. A band of gold filigree panels, separated by polychrome glass studs, originally decorated the upper surface of the paten close to its edge. Many of the now displaced studs and panels have been preserved, and some missing members have been recovered in the course of subsequent excavation of the find spot by the National Museum. The sides of the paten—the silver plate is mounted on a complex decorative band—bear stamped gold or gilded panels of interlace and spirals. The upper and lower edges of this decorative band are executed in silver trichinopoly work overlying an iron core. The paten stand (not illustrated) is a circular band, the outer surface of which is decorated with stamped interlace and curvilinear patterns. Rectangular silver grilles with poly-

chrome glass settings are spaced at intervals on the band.

The gilt bronze strainer (not illustrated), which resembles a long-handled ladle, has a bowl (11.5 cm in diameter) which is divided by a vertically placed perforated metal plate. The handle (26 cm long) terminates in a foil-backed crystal encircled with glass settings, and it is equipped with a suspension ring. The rim of the bowl and the centre point of the strainer plate bear studs of glass.

Aspects of decoration of the paten, stand and strainer are comparable with those of the Ardagh Chalice, Tara Brooch and Moylough Belt Shrine. On the other hand, features of the decoration of the new chalice suggest comparison with the decoration of some pennanular brooches, e.g. the Killamery Brooch and the Roscrea Brooch. There

is, therefore, the possibility that the chalice may be of a slightly later date than the other objects in the hoard.

* Townland: Lurgoe, civil parish of Graystown, barony of Slieveardagh, Co. Tipperary. In the Ordnance Survey Letters for Co. Tipperary, Thomas O'Connor, writing from Nenagh on 7 October 1840, gives an account of the site including the following '... Doire na bhFlann signifies the Oak Wood of the Flanns, Roboretum Flannorum. This appellation is derived from the name of men, used in the plural number, who were in some manner connected with the place... it is called also Doire Eidnech which appears to have been the more ancient of the names and signifies literally the Ivied Oakwood...' The importance of the monastery in the eighth-ninth Culdee reform movement is discussed in Fr Peter O'Dwyer's *The spirituality of the Céili Dé Reform movement in Ireland 750-900* (Carmelite Publications, Dublin, 1977).

A late bronze age hoard from Beeston Regis, Norfolk

PLATES XXVIII-IX

Mr Andrew J. Lawson, a field officer with the Norfolk Archaeological Unit, has kindly written for us a note on the remarkable late bronze age hoard found as a result of a young man, still a schoolboy, turning up a socketed bronze axe while responsibly using a metal detector.

On the evening of 11 December 1979 James Ellis, a former pupil of Beeston Hall School, near Cromer, Norfolk, discovered a socketed bronze axe whilst using a metal detector on the edge of the school's sports field (NGR TG 1757 4279). As the find was made after dark no immediate exploration of the find spot took place. However, the next morning the site was re-examined, and a hoard of bronze implements, together with fragments of a pottery vessel, were found directly beneath the topsoil at the spot at which the first axe had been dug out.

Without delay the find was reported to Mr Sebastian Eden, one of the schoolmasters, who in turn contacted the Norfolk Archaeological Unit. An investigation of the site (Co. No. 15534) revealed that the hoard had been deposited in part of a bowl and sunk into a small pit. No other archaeological features were discovered. Although the bronzes had been removed by the finder most of the vessel had been left *in situ*. The rim of the vessel had been crushed inwards being directly beneath the shallow (15 cm) topsoil. The hoard had fortuitously been preserved, as cobble and brick filled ruts from a former trackway that followed the edge of the field passed either side of the vessel.

The hoard consists of 21 items (PL. XXVIIIa), although a number of these contain additional fragments of broken implements. The majority of the pieces are complete or fragmentary looped socketed axes of several different types: faceted (nos. 1-4); with a double and a triple horizontal moulding (no. 5); with a double horizontal moulding and three pellets beneath (no. 6); with a double horizontal moulding and raised ribs on the side of the body (no. 7); with a double horizontal moulding only (nos. 8-11, 13, 14, 16); with a double horizontal moulding and three vertical ribs (no. 12); with a single moulding and four vertical ribs (no. 15); with at least six vertical ribs (no. 17).

The fragments contained within these axes include parts of the following: a socketed gouge (no. 7); a socket chisel and bronze cake (no. 9); socketed axes (nos. 11 and 13); a rivet (no. 11); a knife (no. 14); a chape (no. 15), and other unidentifiable pieces (nos. 5 and 15).

In addition to the socketed axes the hoard contains a leaf-shaped socketed spearhead with peg-holes (no. 18); one valve of a two-piece bronze mould for a faceted socketed axe with high collar and four horizontal mouldings (no. 19) (of which there is no example in the hoard), a jet (no. 20) and a fragment of a bronze cake (no. 21).

Despite a wide search, no further bronze age metalwork was found in the vicinity and therefore it must be concluded that the hoard was discovered intact. No record was made of the way in which

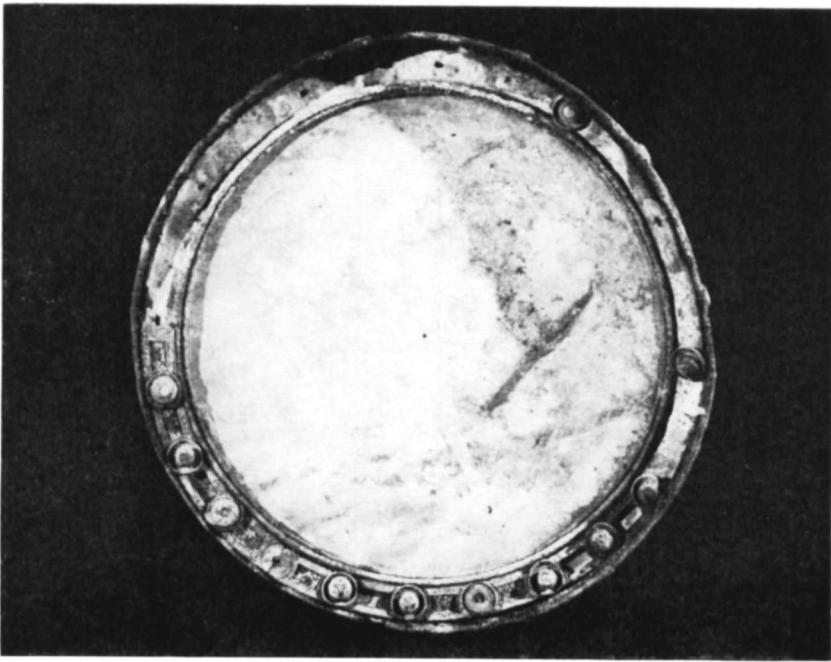


PLATE XXI: THE DERRYNAFLAN HOARD

The silver chalice, 17.9 cm high and 21 cm in diameter at the rim (excluding the handles). It is decorated with panels of gold filigree and with settings of amber

See pp. 216-7

Photo: National Museum, Dublin



b

PLATE XXII

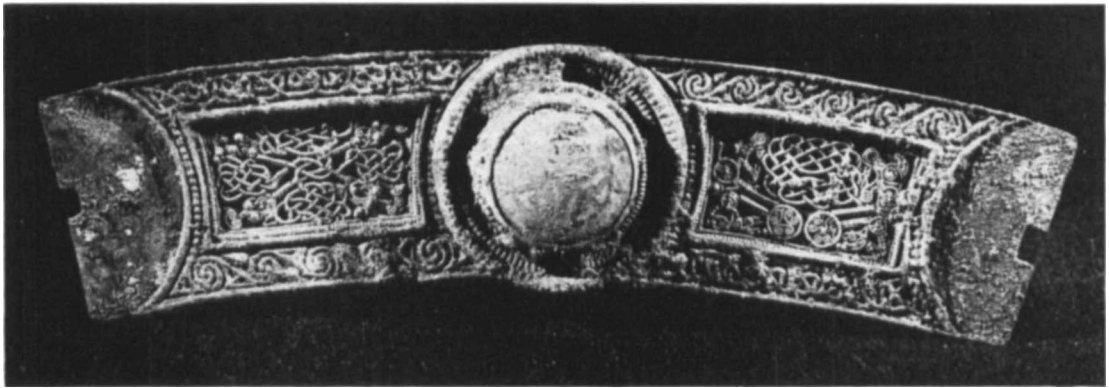


PLATE XXIII: THE DERRYNAFLAN HOARD

(a) Detail of gold filigree panels on paten and glass stud. (b) Detail of gold filigree panel on paten

See pp. 216-7

Photos: National Museum, Dublin

PLATE XXII: THE DERRYNAFLAN HOARD

(a) Detail of one of the handles of the silver chalice. (b) The paten 37 cm in diameter

See pp. 216-7

Photos: National Museum, Dublin

the items were placed in their container, although the first axe found (no. 1) was closest to the surface, the second axe was mouth upwards, the spearhead was in the middle, the mould and cake were near the bottom and the deepest object was the smallest ribbed axe (no. 15). To be confined in such a small space the objects must have been closely packed. There is little doubt that the objects had been bound together with string before deposition. Such a statement can be made with confidence due to the exceptional preservation of sections of string and fibres on the surfaces of many of the objects. Preservation of these fibres has resulted from the concentration of copper salts within the buried environment which has inhibited the normal decay of organic material.

The fibres have been provisionally identified as the bast of lime (*Tilia* sp.), probably a dominant tree of the Sub-Atlantic woodland. The string, with S-twist, passed around the loops of many of the axes and across axe blades, around the jet and through the peg-holes of the spearhead (PL. xxixb). A further knotted length of fine string, also with S-twist, was found within a socketed axe (PL. xxixa). In addition other, as yet unidentified, pieces of wood used as packing within objects, have been preserved. Within one axe (no. 11) were the remains of Rove Beetles (*Atheta* sp.) and millipedes, although it is probable that these are modern intrusions.

With the exception of the socketed axe with double and triple mouldings (no. 5), the axes are easily paralleled by other finds from Norfolk, including a number from hoards of the Ewart Park industrial phase of the Late Bronze Age dated to the ninth and eight centuries BC. Although the faceted axe is commonly represented in East Anglia, the mould from this hoard for the production of such axes is the first example of its type from the area. The only other axe mould from the county is from the Unthank Road hoard, Norwich (Norfolk Museums Service 1977, Fig. 93) and is for the production of axes with a double collar moulding.

Perhaps the most important aspect of the hoard is the association of the pottery vessel. This is a deep carinated bowl (FIG. 1) with a short straight or slightly concave inverted neck and simple expanded rim. The rounded body is placed on a low foot. The surface is compacted with shallow obliquely scored grooves. The fabric is hard, red to black in colour, and has a fine flint filler.

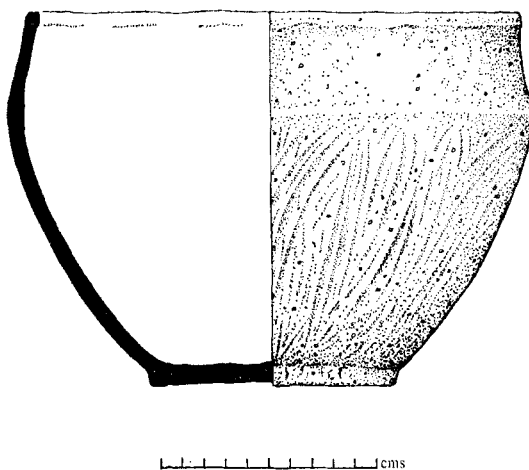


Fig. 1. Deep carinated bowl in part of which the hoard had been deposited

The association of bronze age hoards and pottery containers is rare. The evidence has recently been reviewed and the almost total lack of surviving reconstructable vessels demonstrated (Coombs & Bradshaw, 1979, App. I). The Beeston Regis example is certainly the only example from Eastern England where the form of the vessel can be reconstructed accurately. In the absence of excavated sites of the Late Bronze Age in Eastern England this find gives an important clue to the identity of the pottery of the period. As might be expected the style is closer to, yet distinct from, the earliest iron age West Harling styles (Clark & Fell, 1953) than the bucket urns of the Deverel-Rimbury tradition. This new find would therefore fit well into the 'post-Deverel-Rimbury tradition', being comparable to vessels from, for example, Egham, Surrey (Longley, 1976, Fig. 4.9) (Barrett, 1979) and substantiates the idea of an early start to the bowl styles found in the West Harling tradition (Champion, 1976).

The full implications of this important hoard will be discussed only after a total assessment and scientific analysis of the objects. However, in concluding this note, attention must be drawn to the commendable action of the finder, James Ellis and of his schoolmasters. The find was made using a metal detector and permission for its use had been obtained before any search was made; the find was reportedly promptly; archaeologists were summoned to the site; the objects were not cleaned by the finder and all treatment of them was left to trained conservators. As a result of this much

information on the nature of the deposition was gained; the vessel was observed *in situ* and the organic binding preserved. At a time when metal-detectors are condemned by many it is gratifying to realize what valuable evidence is brought to light when such an instrument is used in a responsible manner.

Acknowledgements: Thanks are due to Miss J. Bown for assistance in examining the site; to Mr C. Calnan and Miss K. Wardley, both of the Norwich Castle Museum, for respectively restoring the vessel and cleaning the bronzes; Dr P. T. Craddock for metallographic analyses; Rowena Gale for identification of the vegetable fibres.

- BARRETT, J. 1979. Later bronze age pottery in southern Britain, *Current Archaeol.*, No. 67, 230-1.
- CHAMPION, T. 1976. Britain in the European Iron Age *Archaeol. Atlantica*, 1(2), 127-45.
- CLARK, J. G. D. & C. I. FELL. 1953. The early iron age site at Micklemoor Hill, West Harling, Norfolk and its pottery, *Proc. Prehist. Soc.*, XIX, 1-40.
- COOMBS, D. & J. BRADSHAW. 1979. A carp's tongue hoard from Stourworth, Kent, in (eds) C. Burgess & D. Coombs, *Bronze age hoards*, BAR 67, 181-196.
- LONGLEY, D. 1976. Excavations on the site of a late bronze age settlement at Runnymede Bridge, Egham, *London Archaeol.* 3 No. 1, Fig. 4.9.
- NORFOLK MUSEUMS SERVICE. 1977. *Bronze age metalwork in Norwich Castle Museum* (2nd ed).

Pot beakers in Britain?

This discussion on Pot Beakers in Britain has been written (?perhaps started) by Mr Alex Gibson, Department of Archaeology, University of Leicester. There are many large 'indigenous pot Beakers' in Britain, as a glance through Clarke's corpus (Clarke, 1970) will show. Vessels such as Nos. 239, 371, and 869 from Hallsford, Somersham and Butley respectively, show superbly the size that some of these Beakers can attain. It must be remembered, however, that these are reconstructions from sherd evidence and though the writer would generally agree with Clarke's reconstructions, a degree of caution must be used when comparisons are made among these vessels.

By far the largest amount of evidence for these large vessels comes from domestic sites rather than graves, as might be expected, and Clarke would see them as representing his third category of domestic vessel, the large storage jars, which, with his fine ware, and secondary ware, allowing for a degree of overlap, would constitute a complete assemblage of pottery on a domestic site. The fingernail and fingertip rustication and the plastic cordon decoration is by far the most common form of decoration on these vessels and is especially common in the late and final Southern phases of Clarke's scheme, so much so that the plain Beaker secondary ware began to decline. This had started to happen by the early phases of Clarke's Southern tradition and so he attributes the introduction of the plastic decoration and the rustication to the intrusive N1/D group. Unfortunately, Clarke is unable to present us with *any* N1/D domestic sites in Britain as evidence for this and instead quotes the Dutch material where most of the parallels lie. He also provides us with some sherd drawings of

some of the Dutch material. It is also unfortunate that Lanting and Van der Waals (1972) state that Clarke's Continental groups—are either unconvincing in not being sufficiently "parental" or being entirely hypothetical and lacking both in chronological and geographical homogeneity' (p. 30).

With the increasing tendency to split away from Clarke's groupings and the increasing realization that there is much more overlap than he considered there to be, for example at Mount Pleasant where both early and final Southern Beakers are found in association (see Longworth, in Wainwright, 1979), Clarke's ideas of origins and development for this type of pottery in Britain must be regarded with caution.

The writer was prompted to look at this question by a study of the pottery from Beaker domestic sites in the British Isles. A great deal of rusticated pottery comes from these sites, and has been

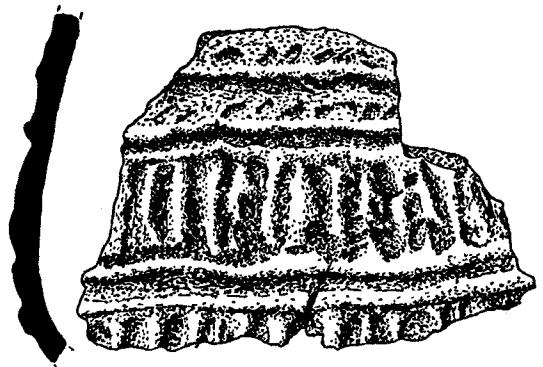
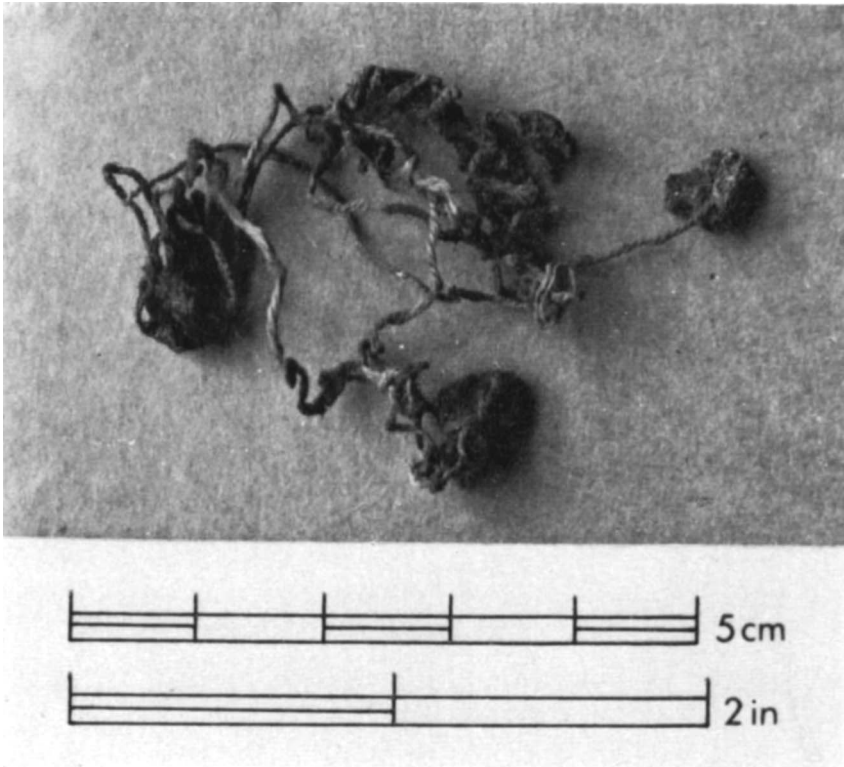
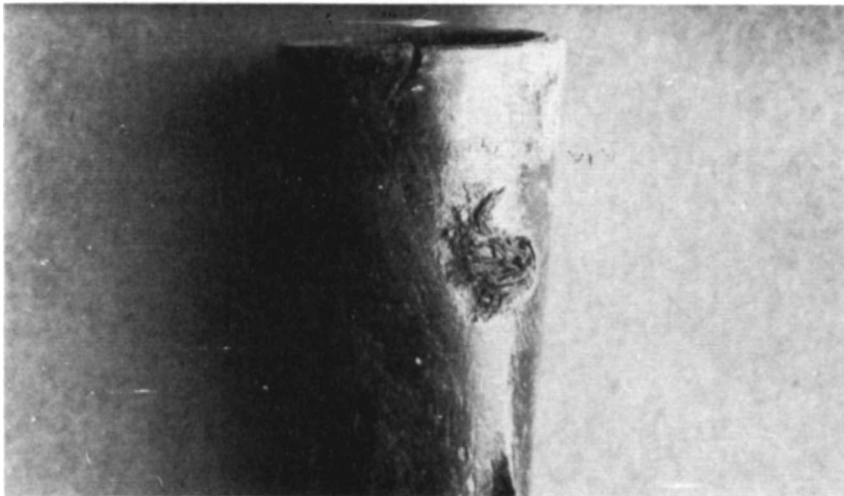


Fig. 1. The Stainsby sherd: see text. Width of sherd 125 mm



a



b

PLATE XXIX: A LATE BRONZE AGE HOARD FROM BEESTON REGIS, NORFOLK

(*a*) A knotted length of fine string, with S-twist, found within a socketed axe (No. 7). (*b*) The spearhead (No. 18) with string through the peg-holes

See pp. 217-19

Photos: A. J. Lawson

drawn by the writer, but mostly it is in the form of small sherds which are totally undiagnostic with regard to shape. When there is an indication of shape, then the sherds tend to be somewhat coarse and thick, and generally more akin to Peterborough or Urn fabric than to Beaker. An exception to this rule, however, is a sherd from Stainsby in Lincolnshire where a domestic scatter including Beaker and rusticated sherds was found beneath a round barrow (Petch, 1958). The sherd in question is a body sherd (FIG. 1) showing fingertip and plastic decoration, both being complementary in the form of finger-pinched cordons. Visible on the sherd from the (?)bottom up, the scheme is as follows:

- 9 vertical cordons,
- two horizontal encircling cordons
- 13 short vertical cordons

two further encircling cordons but somewhat more widely spaced than the first two.

The decoration is very compact and lively, the impressions are deep and the cordons boldly pinched up from the surface leaving the wall of the vessel dangerously thin in places. In all, the decoration would appear to be too bold for the thickness of the fabric. The clay too, is fine without any large tempering, and it is hard and well fired.

The vitality and zoning of the pinched decoration immediately brings to mind the Dutch 'potbeker' as defined by Lehmann (1965) and in particular a 'trompetpotbeker' from Hanendorp in Gelderland. This has a sinuous 'S'-shaped profile with repeated zones of vertical cordons bordered by encircling bands of the same technique. Like the Stainsby sherd, the fabric of the Hanendorp 'potbeker' is only 7 mm thick yet the vessel stands 38 cm high. If we follow Lehmann's definition of a 'potbeker', namely:

... large vessels that, except for the manner of their decoration and their size, resemble Bell Beakers, both those with an 'S'-profile and those with a cylindrical or conical neck and an ovoid body. . . generally tall, almost up to 50 cm, but relatively thin-walled (rarely thicker than 8 mm) . . .' (1965, p. 3)

then 'potbekers' are rare in Britain in their true form. In addition to the Stainsby sherd, there is a sherd from Bottisham Lock on the River Cam (Cambridge, Museum of Archaeology and Ethnology, No Z14826) and a reconstructed vessel from Lion Point, Clacton, Essex (Warren, 1936),

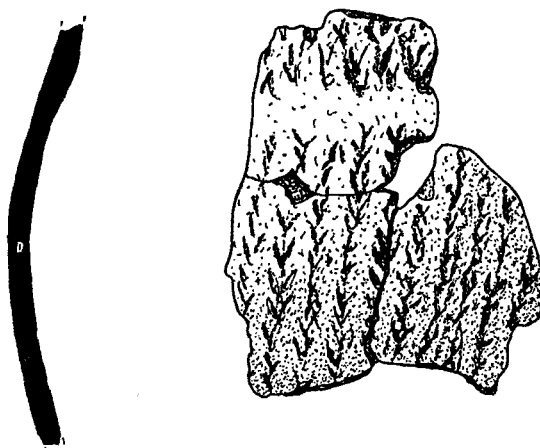


Fig. 2. The Bottisham Lock sherd. Width of sherd 95 mm

though both vessels are rather more difficult to parallel in the Netherlands. The Bottisham Lock sherd represents the constriction where the neck joins the body. It would appear to be from a vessel with a perhaps rather sinuous profile. The decoration is vertical rows of paired fingernail impressions, resulting in very low vertical ribs, with an undecorated band round the neck constriction itself (FIG. 2). The Lion Point vessel is *c.* 27 cm high and has a round shouldered sinuous body with an upright cylindrical neck, and there is no clear distinction on the pot of where the neck starts and the body finishes, either marked by decoration, or formally. There are two well spaced encircling cordons on the pot which divide the neck into virtually equal thirds. With the exception of the cordons the decoration is all comprised of vertical rows of deep paired fingertip impressions (FIG. 3).

Clearly these three examples are not the only examples in Britain, more doubtless await to be recognized among the hundreds of rusticated sherds from domestic sites such as Fifty Farm and Huckwold cum Wilton but the difficulties of sherd evidence are self-apparent, and this note is only intended as a preliminary to a more detailed survey.

Clearly, however, there does seem to be an element of 'potbeker' pottery in Britain although the numbers would appear to be comparatively small. It must be remembered that those large biconical vessels illustrated in Clarke's corpus are not included here as 'potbekers' *sensu strictu* as they are, quite expectedly, quite far removed from the Dutch examples. It is obvious that on both sides of

the North sea it is necked Beakers with which these 'potbekers' are associated, the end of the Southern tradition in Britain and with Veluwe Beakers in Holland, and in both cases there appears to be frequent hybridization between the large vessels and the fine wares. According to Lanting (1973) 'trompetpotbekers' are late in the Dutch sequence whereas Lehman tended to see this style as at the beginning of the sequence. Lanting's typology is more acceptable, however, and is also more in agreement with the finding of the Stainsby sherd associated with S₄ and SH Beakers. It should be stated again, however, that S₄ Beakers were associated with early types at Mount Pleasant in Dorset (Longworth, in Wainwright, 1979) and this may mean that the Beaker groups in Britain need to be looked at *again* if anyone is brave enough to tackle this prehistoric nightmare.

As Lehman correctly points out, the 'potbekers' must be regarded as an Anglo-Dutch phenomenon as they do not appear elsewhere except in areas of Germany close to the Dutch border, and it must have been the case that there was constant contact between Britain and the Continent in the Late Neolithic/Early Bronze Age, not folk movements or invasions as were envisaged in the past, but more casual 'toings and froings', perhaps for trading purposes and the like. Perhaps the Stainsby sherd is one piece of evidence that survives for this presumably complex relationship.

CLARKE, D. L. 1970. *The Beaker pottery of Great Britain and Ireland* (Cambridge).

LANTING, J. N. 1973. Laat-Neolithicum en vroege Bronstijd in Nederland en NW-Duitsland: Continue Ontwikkelingen, *Palaeohistoria*, xv, 216-317.

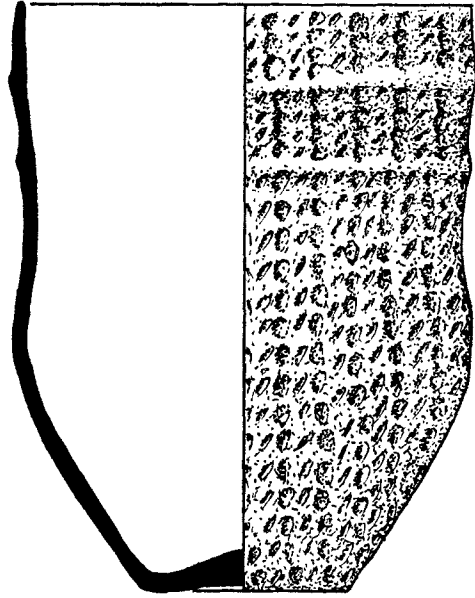


Fig. 3. The Lion Point pot. Ht: 265 mm (after Hazzledine Warren)

- LANTING, J. N. & J. D. VAN DER WAALS. 1972. British Beakers as seen from the Continent, *Helinium*, xii.
- LEHMANN, L. TH. 1965. Placing the Pot Beaker, *Helinium*, v, 3-31.
- PETCH, D. F. 1958. Archaeological notes for 1956, *Lincoln Architectural and Archaeological Society Reports and Papers*, No. 7.
- WAINWRIGHT, G. J. 1979. *Mount Pleasant, Dorset, excavations 1970-71*, Society of Antiquaries Research Report No. xxxvii.
- WARREN, S. H. *et al.* 1936. The archaeology of the submerged land surface of the Essex coast, *Proc. Prehist. Soc.*, II, 178-210.

The Cyprus American Archaeological Research Institute

The Cyprus American Archaeological Research Institute (CAARI), sponsored by the American Schools of Oriental Research, was officially inaugurated at its premises at 41 King Paul Street, Nicosia, on 7 July 1978. It is modelled along the lines of the longer-established institutes in Amman and Jerusalem, and it was directed in its initial stages by Dr Anita Walker. The present writer took up the position as Director on the 1 October 1979. Although American archaeological interest in Cyprus dates back half a century or so, no resident archaeological institute had ever been established on the island. With the recent increase

in the number of foreign archaeologists working in Cyprus, the need for such a centre was readily apparent, and the American Schools of Oriental Research, with their long association with the region as a whole, were well suited to establish such a facility.

The overriding goal of CAARI is the furthering of the study of the archaeology and related aspects of the island, and ultimately of the region as a whole. This aim may best be achieved by the provision of physical facilities in Nicosia, and by facilitating communication between the Department of Antiquities and foreign scholars interested

in Cyprus. CAARI currently occupies one complete floor of a large building in central Nicosia, five minutes walk from the Cyprus Museum and the Department of Antiquities. The institute consists of a large common room and associated dining area, kitchen (self-service), four bed rooms (2 beds each), small library, sherd/geological collection room and two offices. It is hoped that with a considerable increase in funding, the facilities of the institute will soon be improved to the point at which CAARI can provide all of the services which may be expected of it. The upgrading of the library is a top priority. The building up of a comprehensive research library will clearly require a major infusion of funds, not available at present. All donations of journals and books will be gratefully received, and authors of relevant publications reading these lines are earnestly entreated to send copies of their works

(including offprints of articles) to the CAARI library in Nicosia.

Although the word 'American' appears in CAARI's title, the Institute welcomes archaeologists of all nationalities. A major feature of the institute is the provision of a meeting place where archaeologists can gather to discuss matters of mutual interest in convivial surroundings. Such a place has not existed in Nicosia before, and the need for it has been amply demonstrated by the rapidity with which CAARI's facilities have been adopted by scholars of many nationalities.

Enquiries concerning archaeological research in Cyprus and accommodation at the hostel are welcome, and should be directed to the *Director, CAARI, 41 King Paul Street, Nicosia, Cyprus*. The institute telephone number is Code 021, number 51832. IAN A. TODD

Further light on Charles Dawson

Veryan Heal graduated in Archaeology at Reading University in 1976. She is now a Research Student in Cambridge working on prehistoric wood technology in N.W. Europe. This note draws attention to some curious aspects of the work of that eccentric lawyer-cum-archaeologist, Charles Dawson. While working for a Cambridge PhD she has recently been appointed a Research Assistant at the Archaeological Research Centre of the National Maritime Museum to work on prehistoric water transport.

Charles Dawson is known primarily for his involvement in the Piltdown Affair, but his archaeological activities were extensive, particularly in Sussex where he lived. A solicitor by profession, Dawson developed a considerable interest in local history and archaeology; for some years he was actively involved in the Sussex Archaeological Society, becoming a 'prominent member' (*SAC* 85,38), local secretary for Uckfield, and an accepted local expert consulted about sites and finds in the county. He features in the Sussex Archaeological Collections between 1892 and 1974, in his consultative capacity (*Notes and Queries*, 1892a,b; 1894; 1909; Allcroft, 1916), as possessor of unique objects (Dawson, 1903; Salzman, 1908), writing articles himself (1894a,b; 1896; 1901; 1902; 1903; and with Lewis, 1896), and being criticized for his work (Beetlestone, 1926; Andrews, 1974).

Millar examined Dawson as man and archaeologist in *The Piltdown men* (1974), and this note

does not intend to repeat those findings, but to examine two papers in particular which bear upon the present author's research.

The first is entitled 'Neolithic flint weapon in a wooden haft' (Dawson, 1894a), and refers to a drawing of 'a haft bearing an implement in situ' (98), described as having been found at East Dean, Sussex, by a shepherd called Blackmore, from whom Dawson had negotiated the purchase of flints. The axe had apparently been found 'some years ago', when 'the haft was perfectly carbonized and crumbled at the touch, and all attempts to save it proved futile'. However, Blackmore, being 'a fair draughtsman . . . was able to make a drawing of this interesting discovery' (FIG. 1).

The implement was received in a horizontal groove and on one side of the shaft near the head. Above it, in the head of the shaft, appeared two small stumps, apparently where small shoots had been trimmed off the wood. Below the implement were a number of grooved rings running round the haft . . . The blade of the implement itself was inclined slightly downwards, and the haft curved back slightly in the centre (Dawson, 1894a, 98).

Dawson interprets the 'stumps' and 'grooves' as 'no doubt to receive the cross lashings which secured the implement in its groove in the haft', and compares the position of the head and curve of the haft with the construction of axes 'of many modern savage races' (p. 98). Given the reported

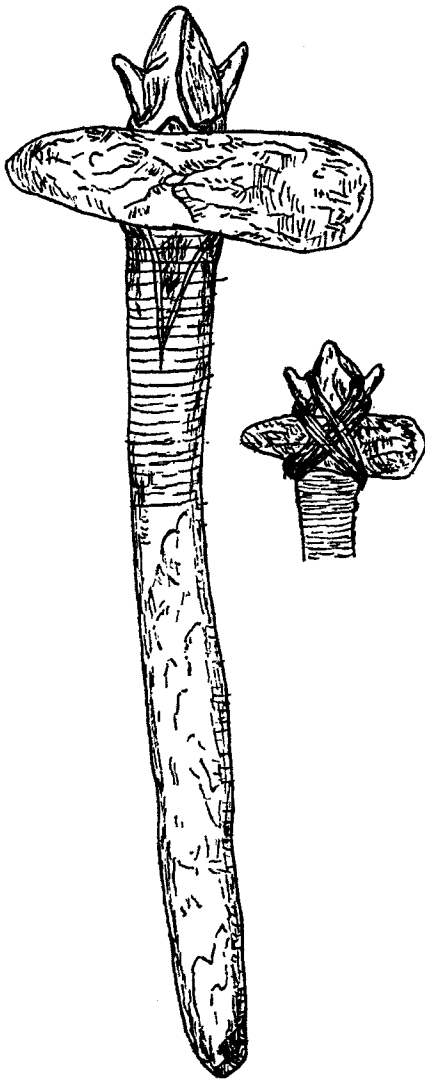


Fig. 1. 'Neolithic flint weapon in a wooden haft', published by Dawson in 1894 (after Blackmore)

condition of the piece, the details and reconstruction are quite remarkable; John Evans commented, 'Neither the description nor the drawings of this... are such as to inspire confidence' (1897, 154).

It is questionable whether Dawson's reconstruction would be of much practical use; experience suggests that if an axehead were to be lashed into a lateral groove the binding would loosen in use and the head would drop (or fly) out. Wooden objects survive only in particular environments, thus each one which is found represents a significant addition

to the archaeological record. Such finds have recently been discussed (Coles, Heal and Orme, 1978), and none of the neolithic axe haftings known bears any resemblance to this example. The use of the 'stumps' for anchorage is not found elsewhere and the use of a round-wood stem as opposed to a cleft wood haft is unusual.

The uncommon aspects of this haft may simply not have been preserved elsewhere; however, the style and decoration would seem to owe more to observations among the aforementioned 'savage races' than to prehistoric archaeology. A 'lack of complete confidence' seems justified; the drawing may represent a neolithic flint weapon but it does not seem likely that it is in a *neolithic* wooden haft.

The second paper by Dawson, 'Ancient boat found at Bexhill' (1894b), relates to the excavation of a wooden construction on the shore at Bexhill, Sussex, which had been exposed by sand movement, Dawson records that in 1887 Mr Jesse Young, 'a boat builder of Bexhill', saw the 'boat' and decided to recover it. The operation was a dramatic one:

'On a bitterly cold night and with the sea almost at their heels with the dreaded sand, the men dug out the boat' (p. 161).

Unfortunately, 'owing to the rottenness of the wood, the tenacity of the clay, the darkness of the night, and the haste with which the work was necessarily conducted, the boat was very much broken' (p. 161). However, when Dawson first saw the remains 'a short time afterwards' he was able, with Young's assistance, to place the pieces 'in juxtaposition' and so make the 'restoration' (FIG. 2).

His 'very extensive examination' (pp. 162-3) allowed recognition of holes for 'wooden rivets', a composite gunwale, a bevelled and pegged keel, clinker-built sides and attached side timbers, and ends 'pieced and pinned together in a manner most laborious'. The craft was deemed to be 'flat-bottomed and double-bowed', 9 ft long, 6 ft wide and 18 in deep (456 cm long, 183 cm wide, 45.75 cm deep), and made of cleft oak 'without any other finishing', and parts of 'naturally bent boughs'. Dawson suggests that propulsion might have been by means of oars, with rowlocks on the side timbers, 'but owing to the state of the wood this could not be made out'—which is perhaps surprising since much smaller details are described 'The boat, in the opinion of expert boatbuilders,

was likely to be quite seaworthy, owing to its wide beam'. Unfortunately, conservation proved impossible though soaking in alum solution (in vogue at the time) was attempted.

The restoration is of somewhat extraordinary appearance, and initial suspicion of its potential as a sea-going vessel has been confirmed in discussion with Dr John Hale. It is uncertain who Dawson's 'expert boat builders' were, but their verdict can hardly have been applicable to the craft depicted. With so shallow a draught and sides at such an angle its capacity for open-water travel and rowing would be minimal, and its length: beam ratio does not suggest manoeuvrability.

As to its dating, Dawson makes no firm statement; it lay in 'the blue Wealden Clay' (p. 161), and he felt that it represented a link between the coracle and 'burnt out' boats (i.e. log boats) and those depicted on the Bayeux Tapestry. He also mentions a horse skull 'of small size', and vegetational debris ('from the Ancient (Submarine) Forest, which originally formed part of the southern fringe of the great forest of Andred', p. 161), which were found by a 'coastguard man'. It is not clear whether these objects were directly associated with the 'boat', but the paper concludes:

... the landing of a horse tethered in such a boat on the open sea or in deep water must have proved a venturesome experiment, and such a proceeding as this probably caused an accident which may have accounted for the loss of the boat (p. 161).

Unfortunately even the skull does not survive, having been 'sold to a gentleman (unknown) at Hastings for 7s 6d'.

Dr Hale informs me that the use of wooden pegging would suggest a post-bronze age date, and that of clinker construction a post-Viking one. Neither he nor I have encountered anything of its type in the course of our researches.

Millar has shown that Dawson was an intelligent man of great enthusiasm and generally liked (1974, 118ff), though there is some evidence for local antipathy towards him (e.g. Weiner, 1955, 179). His archaeological reports are presented with an air of confidence and corroborative evidence befitting a legal training. He does not claim to have found either of these objects himself; in both these cases he represents expert opinion applying archaeological/ethnographic/scientific knowledge to material ostensibly found by others. The finders are given some credibility, a known flint collector and a professional boat builder. As in neither case does

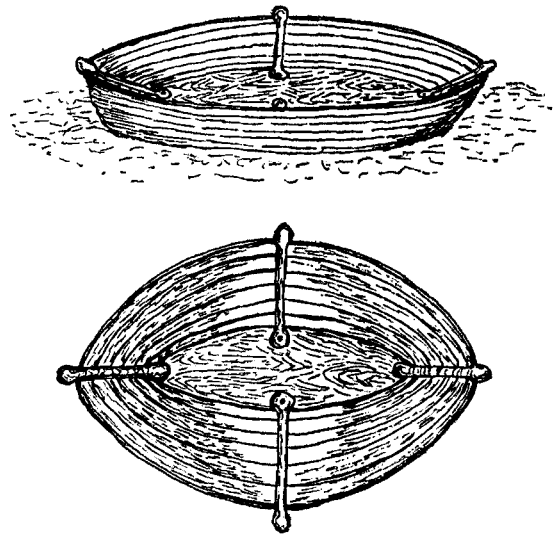


Fig. 2. 'Ancient boat found at Bexhill', published by Dawson in 1894

the artifact survive for further examination, we are bound to rely upon Dawson's interpretations of a drawing and some disintegrating timbers (Evans's doubts applied also to flints illustrated with the axe).

Close examination of the 1894 papers leaves room for doubt as to the validity of the interpretations, and even the authenticity of the finds. Dawson is recorded as possessing other unique objects: 'probably the earliest specimen of cast-iron known' (Dawson, 1903, 33) and a perfect stamped tile which bore the only epigraphic reference to the Emperor Honorius in England (Salzman, 1908, 112; but see Peacock, 1973). The axe haft and boat may be described as unique, and the Piltown remains—the first of which was handed to him by a workman—supremely so. As Weiner comments, 'Piltown can fairly be viewed as the climax to a whole series of out-of-the-ordinary discoveries (1955, 178).

It may be suggested that Dawson was the victim of hoaxes; local residents have exploited offers of remuneration for 'finds' from archaeologists; in Stoke Newington flints were produced by locals and accepted as currency by landladies and publicans (Vulliamy, 1940, 33), and Dawson's enthusiasm may have made him a similar target. Yet the chances of reward for an unsubstantiated drawing and some distorted timbers do not seem to be high, and local invention seems unlikely.

Since Dawson possessed the usual qualifications

of a nineteenth-century archaeologist (FGS and later FSA) he could hardly have been suffering as an 'archaeologist manqué' to prove his ability, though the Fellowship of the Royal Society was denied him; yet there are factors which suggest that his collections and writings were not entirely above suspicion. He shamelessly plagiarized 'A history of Hastings Castle' (Millar, 1974, 10); Andrews (1974) exposes a map drawn by Dawson as 'totally fictitious' (interestingly it includes Pilt Down), and Beetlestone (1926) criticizes him for inaccuracy.

In 1903 Dawson bought The Castle Lodge, Lewes, home of the Sussex Archaeological Society and promptly evicted them, moved in and created dungeons on the pattern of Hastings Castle beneath. His relationship with the Society subsequently deteriorated, he published nothing more in their Collections and does not figure favourably in the history of the Society (Salzman, 1946). Such occurrences detract somewhat from the image of an amiable enthusiast.

Dawson died in 1916, before any of his archaeological activities had been questioned and with the lawyer's satisfaction of apparently having won the archaeological 'cases' which he had presented.

Note: SAC refers to Sussex Archaeological Collections.

ALLCROFT, A. H. 1916. Some earthworks of West Sussex, *SAC*, LVIII, 65-90.

ANDREWS, P. B. S. 1974. A fictitious purported map, *SAC*, CXII, 165-7.

BEELESTONE, C. J. 1926. A Sussex fireback, *SAC*, LXVIII, 221-2.

COLES, J. M., S. V. E. HEAL & B. J. ORME. 1978. The use and character of wood in prehistoric Britain and Ireland, *Proc. Prehist. Soc.*, XLIV, 1-45.

DAWSON, C. 1894a. Neolithic flint weapon in a wooden haft, *SAC*, XXXIV, 97-8.

1894b. Ancient boat found at Bexhill, *SAC*, XXXIV, 161-3.

1896. Note on the seals of the Barons and of the Bailiffs of Hastings, *SAC*, XL, 261-5.

1901. The services of the Barons of the Cinque Ports at the coronations of Kings and Queens of England. . . *SAC*, XLIV, 145-54.

1902. Note on the Hastings Corporation relics of coronations of the Kings and Queens of England, *SAC*, XLV, 110-13.

1903. Sussex ironwork and pottery, *SAC*, XLVI, 1-62.

DAWSON, C. & J. LEWIS. 1896. Description of and remarks on the dungeon cells at Hastings Castle, *SAC*, XL, 222-35.

EVANS, J. 1897. *Ancient stone implements* (London).

MILLAR, R. 1974. *The Piltown men* (London).

NOTES AND QUERIES. 1892a. Treasures found at Hastings, *SAC*, XXXVIII, 226.

1892b. A Sussex shepherd's gift, *SAC*, XXXVIII, 226.

1894. Minnis Rock, Hastings, *SAC*, XXXIX, 222-3.

1909. Skeletons found near Eastbourne, *SAC*, LII, 189-92.

PEACOCK, D. P. S. 1973. Forged brick stamps from Pevensey, *Antiquity*, XLVII, 138-40.

SALZMAN, L. F. 1908. Excavations at Pevensey, *SAC*, LI, 99-114.

1946. A history of the Sussex Archaeological Society, *SAC*, LVIII, 65-90.

VULLIAMY, C. E. 1930. *The archaeology of Middlesex and London* (London).

WEINER, J. S. 1955. *The Piltown forgery* (London).

James Mellaart replies to his critics

In March 1979 Dr Mellaart wrote for us an article entitled, 'Egyptian and Near Eastern chronology: a dilemma'. This was attacked by James Weinstein and Barry Kemp (March 1980), and Margaret Munn-Rankin (July 1980). We asked Dr Mellaart if he would write for us a brief rejoinder to these criticisms. We were not able to afford him as much space as he would, ideally, have liked, but here is what he wrote.

'A disservice both to the study of ancient history and to radiocarbon dating' (B. Kemp); 'In fact, it is almost methodologically faulty, so that at times it seems as if the author has deliberately set out to misuse the data to stir up the proverbial hornet's nest among scholars who favour the more traditional chronological schemes' (J. Weinstein); and 'An imperfect understanding of the historical

sources and an inadequate discussion of the archaeological evidence' (M. Munn-Rankin); such verdicts would perhaps tend to show that I have made no converts to a high, or as some other critic put it, an ultra-high chronology. I plead guilty to inadequate discussion of the archaeological evidence within the confines of an ANTIQUITY article (it would probably need a book); a perfect understanding of the inadequacies of the historical sources has not been achieved by anyone, to my knowledge. They are equally inadequate for the purposes of an absolute chronology, in Egypt, in Mesopotamia, Assyria, Syria and Anatolia, during the third and second millennia.

At a recent Colloquium at the Oriental Institute, Chicago (October 1979), Klaus Baer emphasized that before the beginning of the XIth Dynasty

Egyptian chronology floats because of the unknown length of the period comprising the Seventh to Ninth dynasties, which he considers too short in the conventional chronology. D. Edzard, in his review of the Mesopotamian evidence, came to the same conclusion, and Th. Jacobsen maintained that the 'Lagash II' dynasty was likewise too short in most conventional treatments of the subject. M. Rowton reminded me that, when writing the *Cambridge Ancient History*, he was in two minds over the dating of the fall of Babylon, either at 1651 or 1595. He finally settled for the latter date, but is now prepared to consider the former. O. R. Gurney, in a letter, informed me that he also prefers the higher date. To suggest (Munn-Rankin) that calibrated radiocarbon dates from areas neighbouring Mesopotamia can not be easily correlated, when Shamshi-Adad is known to be a contemporary of Kültepe IB level in Anatolia, and Shimshara with Dinka, is to ignore what little archaeological synchronisms we have with Mesopotamia. All three reviewers omit a discussion of the Gerzean-Uruk, First Dynasty-Warka III, Palestinian EB1-Gerzean, early EB2-First Dynasty synchronism, a basic point of archaeological correlation. None mentions the importance of archaeological correlations through Syria with Mesopotamia—Palestine being, after all, only a southern province of what, since Roman times up to the end of the Ottoman Empire, was known as Syria. None comments on my central point: the necessity for a single chronology, in which historical and calibrated C14 dates both have a role to play. The analogy with the vision of a United Western Europe and national squabbles over the price of butter, lamb, etc. may not escape the reader.

This, then, brings one to calibrated C14 dating. At the Chicago Colloquium Peter Cuniholm, a dendrochronologist, made an extremely important point; C14 samples from wood, i.e. beams, are on average a century too high, a warning supported by Ian Fleming from MASCA. They suggest that, when a sample is derived from wood, the archaeologist should deduct 100 years from the calibrated date. If we follow this advice, the case for an ultra-high chronology fails altogether, and the reduced BC dates approximate those of the high chronology of A. Goetze, and some workable concordance can be established. It is a hopeful sign that many Mesopotamian historians now seem prepared to come up some 50–55 years—and some, of course, have maintained such a position all along. Klaus

Baer's new Egyptian chronology, now in preparation, but distributed as a handout during the Chicago Colloquium, also envisages an updating by the same amount, thus reaching c. 2680 for the beginning of the Fourth Dynasty (instead of 2613 on the Middle Chronology). The length of the First, Second and Third Dynasties, with 25 kings, remains controversial in the absence of contemporary evidence for regnal years and uncertainties about the restoration of the Palermo and Cairo annals of Djedkara-Izisi. Baer's suggestion that (a date not later than) 3100 may mark the beginning of the First Dynasty is the conventional date, but in conversation he admitted that it might have to be raised considerably, though definitely not up to my suggestion of c. 3400 BC. A good round figure of 3250 or 3200 BC might be suggested as a compromise, which also would suit the Mesopotamian/Syrian partner in the synchronism, especially if there are ceramic overlaps between Jemdet Nasr and ED I and II/III in Sumer, as P. R. S. Moorey and B. A. al Soof have suggested (see M. Munn-Rankin), unsuspected before in the Diyala scheme, on which, until recently, most of our stratigraphic knowledge of Early Dynastic Mesopotamia was based. Palestinian archaeology suffers from the same problem, complicated by different rival terminologies, so that it is by no means crystal clear what is meant by what, and how it should be correlated from site to site, in the absence of clear tables of ceramic and other products. The interpretation of a 'deviant' date and its rejection on subjective grounds ('too high') practised by himself, becomes 'faulty methodology' when practised by me, but I can assure Professor Weinstein that it was not my intention 'to deliberately set out to misuse the data'; we do not do this sort of thing in the Institute of Archaeology of the University of London.

Turning to more significant matters, I admit that the exposé of the Sothis date, presumably for year 7 of Sesostris III as presented by Hayes in the *CAH*, failed to convince me, but having read R. A. Parker's more recent publications (*SOAC*, xxxix, 1977 and *JNES*, xxix, 1970) with all the supporting evidence, I bow to the inevitable reasoning and accept his solution as the most reasonable one. In other words the initial date of 1991 for the beginning of the Twelfth Dynasty stands, and my interpretation of the following Hyksos period was misplaced and wrong, and should be forgotten. Radiocarbon dates suggestive

of a date of 2150, or thereabouts, after a reduction of 100 years, agree well enough with the conventional date, 1991 BC \pm 25 years, which is well within the range of historical tolerance for the second millennium dates in Egypt. The apparent discrepancy of radiocarbon dating and historical Egyptian dates of the second millennium, one hopes is thus more or less resolved, and if one could do the same for the third millennium, I am sure we should all be much happier.

The whole purpose of writing the original article, it must be stressed once again, was to obtain a measure of agreement between historical and calibrated C₁₄ dates valid for the entire Old World, as a basis for the discussion of trade and cultural contacts. Contrary to the impression I may have given, I do not really care what the end result would be provided it is consistent.

Adherence to C₁₄ dates BC naturally made me opt for an ultra-high chronology, but if the dendro-chronologists and physicists demand the reduction of a century (or more) for wood samples from timber, as now seems to be the case, then I for one, am perfectly satisfied with any chronology with which they are found to be compatible. What we need is a greater understanding of each others' problems across modern frontiers, radiocarbon dating as an integral part of dating, and condemnation of excavations which ignore it, greater precision on the part of excavators in the specification of the timber in the case of wood samples, more short-lived samples, series of dates, as well as more properly stratified historical and archaeological material. Our present evidence is clearly insufficient.

Thumbscrews in wattle and daub wall: West Yorkshire

Mr Barry Dransfield is a Senior Dentistry Instructor in the Leeds University School of Dentistry, and is a member of the Prehistory Section of the Yorkshire Archaeological Society. He has excavated widely (Kirkstall Abbey, Kilham Long Barrow), but is here drawing our attention, not to a prehistoric find, but to one of those grisly instruments of torture of which we have all heard from childhood up: the thumbscrew. This example he believes might antedate the earliest known in the UK by something in the nature of 100 years. It sounds more disagreeable even than some dental instruments we have all come across!

The thumbscrew which is the subject of this note was found by Mr Bentley of Killinghall at Scotton Old Hall (SE 325595) while he was engaged in recent restoration work. Part of this work entailed the removal of the surface of an internal wall of a short corridor on the second floor in the oldest wing of the Hall. Under the plaster was found a wattle and daub wall the frame of which was oak, six-inch oak dowels being used to secure the wattle. The wattle is of hazel, and the daub is four inches, thick consisting of cow dung and clay. Protruding from this surface the tip of one of the three vertical rods of the screw was seen, and it was gently eased out. This portion of the wall is original and has not been tampered with or rebuilt in any way.

The East wing of the Hall is the oldest, having been built and used for many years before being

extended by building on the West wing and adjoining Hall to form an H-shaped dwelling. The porch with roundheaded door is in the right wing, and entry is from the side, not the front. The Hall is attributed to the seventeenth century by N. Pevsner (1967, 433), but the internal framework seems earlier, a suggested date is late fifteenth to early sixteenth century.

Scotton Old Hall is of great historical interest as it has been suggested that it was to the old Hall, around 1579, that Dionis Baynbrigge brought his new wife and stepson, Guy Fawkes. At this time Guy Fawkes was a Protestant and was educated at the Free School in York. It was while living at the Hall that he became a Roman Catholic and a zealous adherent of the Old Faith. So the Hall at this time was a Roman Catholic household in Protestant country. This is further illustrated by there being a priest hole in the roof above a room which adjoins the passage in the wall of which the thumbscrew was found. It is also alleged that there is in existence an underground passage between Percy Hall and Scotton Old Hall, the outlines of which can be seen when snow is lying on the ground.

The thumbscrew consists of a narrow iron vice in which two upper toothed jaws slide on three vertical rods (FIG. 1). Usually thumbscrews have one upper toothed jaw, but this one is unusual in having two. The central rod carried a thread which

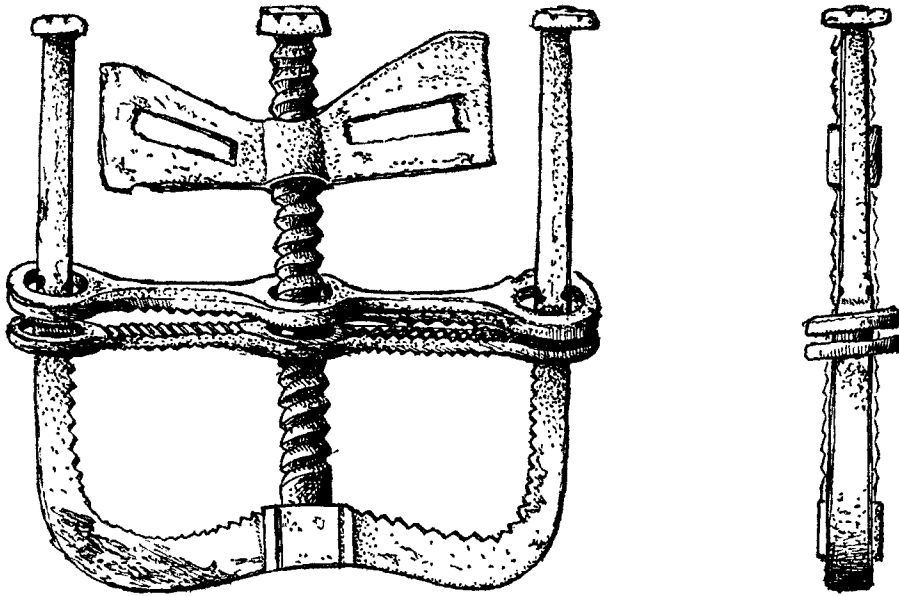


Fig. 1. The Scotton Old Hall thumbscrew (natural size)

is hand cut and is fitted with a finely worked wing nut which, when tightened, lowers the two sets of toothed jaws. The workmanship of this set of thumbscrews is of a high standard and there are still marks of chasing on the tops of the vertical rods and down the two outside ones; the state of preservation is very good.

It is recorded that thumbscrews were first used in Scotland in 1674 by General Drummond who had seen them used in Russia (where he had found favour with the Tsar and rose to become Governor of Smolensk) (HMSO, 1975, 10). In fact thumbscrews seem to have been in use in England before then, as this find would indicate. From the situation in which the thumbscrew was found it is probably sixteenth-century.

Thumbscrews were probably derived from a medieval instrument of torture known as the 'Pilliwinks', which was some form of hand crushing

device. They seem to have become common in the seventeenth and eighteenth centuries, and in many cases they were probably used, like handcuffs, for restraining prisoners (Williams, 1910-11).

This is one of the few instances of a thumbscrew being found in an early provenanced context, which suggests that thumbscrews were used earlier than was previously believed.

The thumbscrew is in the keeping of the owner of Scotton Old Hall.

Acknowledgements: I would like to thank Mr Peter Breas, Director of Leeds Museums, for all his help and guidance during the preparation of this note, and also Miss Mazie Morton, Assistant Archivist, Yorkshire Archaeological Society, for valuable help.

HMSO, 1975. *Torture and punishment* (London).

PEVSNER, N. 1967. *Buildings of England. Yorkshire West Riding* (Harmondsworth)

WILLIAMS, J. 1910-11. Torture, *Encyclopaedia Britannica*, XXVII (11th ed.), 72-9.

Tinned axes

The authors of the note on the Barton Stacey axe (Kinnes, *et al.*, 1979) ask for information on other examples of axes with tinned surfaces. We refer them to the numerous Scottish tinned axes, and to the analyses of Macadam over 100 years ago (Smith & Macadam, 1872). Smith listed four axes in the collections of the National Museum of

Antiquities of Scotland with visual evidence of a silver coloured coating. Macadam's analyses showed this surface coating to have an extra high tin content, and he believed that deliberate tinning was the most likely cause of the phenomenon.

The existence of these tinned axes has been

commented on by Tylecote (1962, 156), Britton (1963, 279) and most recently by Coles (1969) in his survey and corpus of Scottish early bronze age metalwork. Coles (1969, 34 and Appendix D) lists 14 Scottish axes which appear to have tin-rich surfaces.

Between 1969 and 1977 H. McKerrell carried out a number of internal and surface analyses of Scottish axes, flat riveted daggers, and halberds. This demonstrated the presence of tin-rich surfaces on some of the axes in Coles's list, and on some daggers, and also showed high arsenic-enriched surfaces on halberds, suggesting they originally presented a silvery appearance. Objects that were arsenic-plated or had an arsenic-rich surface, giving a silver-coloured appearance, from Scotland, Europe and the Near East have been discussed briefly by Eaton and McKerrell (1976, 175-7). The new surface and internal analyses of Scottish flat axes, daggers and halberds are, however, unpublished. Eaton and McKerrell believed the tin- or arsenic-rich surfaces to be due to inverse segregation during manufacture, but they reached no decision as to whether this was deliberate or accidental.

Of the 14 early bronze age surface-coated axes in Coles's list, 12 were found in association with other material, with only two found in isolation; taken in conjunction with all of the Scottish axes, these figures suggest a deliberate selection of coated axes for deposition in hoards, with only a very few coated axes disposed of in isolation. However, we know little about the processes of weathering and chemical changes that would take place upon or within variable soil and marshland conditions, and we do not know the effects of deliberate burial or accidental exposure on surface-

coated bronzes. It has been suggested that the coating could have been a deliberately induced industrial process, but the presence of an arsenic-rich surface on a dagger blank or ingot from Gairloch (Close-Brooks, 1975, 225-6), an obviously unfinished object, infers that this instance was an accidental industrial process, or indeed one that might even be wholly undesirable; yet the blank was thereafter left in an unfinished state, which might also raise other subjective possibilities.

The most significant result to emerge from the Scottish evidence is the recognition that in the Early Bronze Age many halberds, and a considerable number of flat axes and daggers, originally had a silver-coloured appearance, and not golden bronze. Clearly more work needs to be done in this field of investigation, both on the contexts of finds and on the chemical processes involved in the deliberate or involuntary surface-coating of bronzes. J. CLOSE-BROOKS & J. M. COLES

- BRITTON, D. 1963. Traditions of metal-working in the Later Neolithic and Early Bronze Age of Britain: Part I, *Proc. Prehist. Soc.*, XXIX, 258-325.
- CLOSE-BROOKS, J. 1975. Notes on Museum acquisitions 1972-4, *Proc. Soc. Antiq. Scot.*, CVI, 1974-5, 225-8.
- COLES, J. 1969. Scottish early bronze age metalwork, *Proc. Soc. Antiq. Scot.*, CI, 1968-9, 1-110.
- EATON, E. & H. MCKERRELL. 1976. Near Eastern alloying and some textual evidence for the early use of arsenical copper, *World Archaeol.*, VIII, 169-96.
- KINNES, I. A., P. T. CRADDOCK, S. NEEDHAM & J. LANG. 1979. Tin-plating in the Early Bronze Age: the Barton Stacey axe, *Antiquity*, LIII, 141-3.
- SMITH, J. A. & S. MACADAM. 1872. Notice of bronze celts or axe-heads, which have apparently been tinned; also of bronze weapons and armlets, found along with portions of metallic tin near Elgin in 1868, *Proc. Soc. Antiq. Scot.*, IX, 428-43.
- TYLECOTE, R. F. 1962. *Metallurgy in archaeology* (London).

The early Christian topography of Sherborne

PLATE XXXI

Mrs Katherine Barker (Wallace House, South Street, Sherborne, Dorset DT9 3NE) has recently been telling us about some exciting work she has been doing in Sherborne. A full report is being prepared for publication, but she has offered us this short note, which is by way of being the nub of the matter, in advance. It is accompanied by a plan, taken from a 1733 estate map of Sherborne, and, for comparison, by an aerial view of the same area taken in 1969.

Much has been written on the history of Sherborne, but no one has ever commented on the very distinctive character of its town plan (PL.

XXXI & FIG. 1). Careful inspection would suggest that the street pattern preserves the outline of a large D-shaped enclosure, laid out across a fairly uniform south facing slope, and set astride what has been, at least since late Saxon times, the main market street of the town. There is nothing in the record to indicate that Sherborne ever possessed a town ditch, and had there been any such medieval enclosure, it would surely have included the Abbey Church within its circuit.

In size, plan and character, the Sherborne enclosure would correspond closely to members of

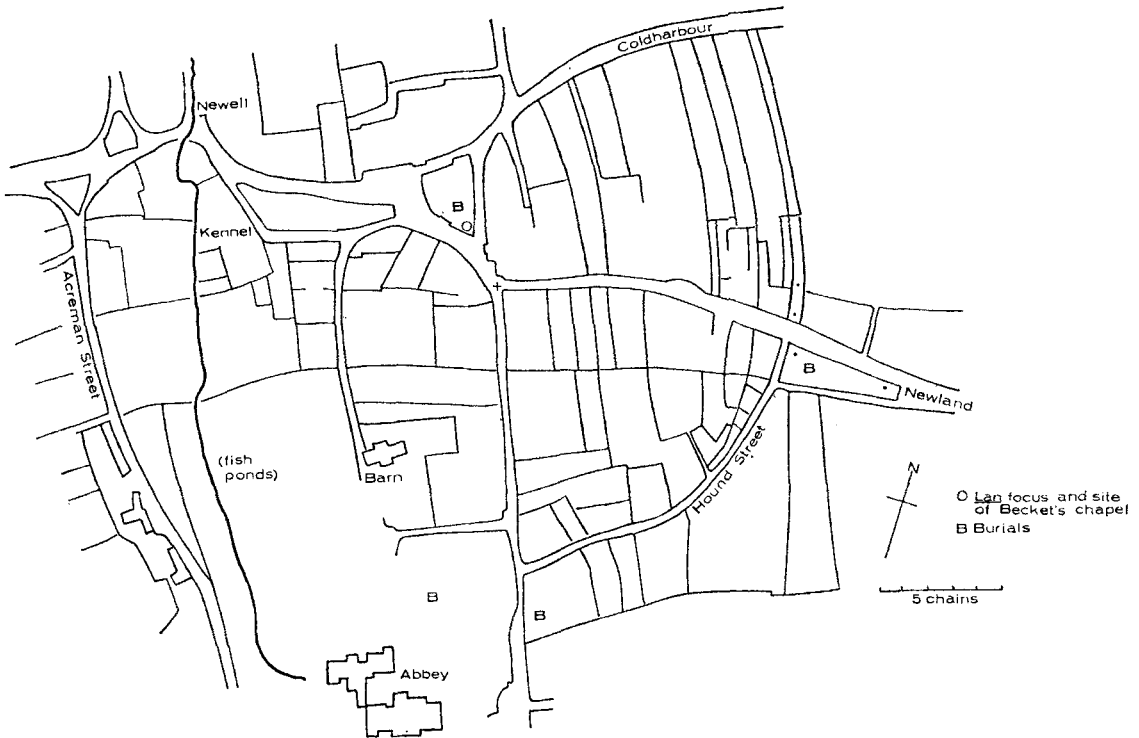


Fig. 1. Plan of central Sherborne taken from a 1733 estate map of the town, showing the remains of what appears to be a large pre-Saxon ecclesiastical enclosure in the street plan, almost certainly to be identified with the Lanprobi of the medieval record. The plan may be compared with the aerial survey of 1969. (Pl. XXXI)

a class of large ecclesiastical settlement enclosure at present best exemplified in Ireland, and the subject of an aerial survey (Norman & St Joseph, 1969, 90–121, and Pls. 55–70). The Sherborne plan bears a quite striking resemblance to one preserved as cropmarks around a Celtic monastic site in County Down, later occupied by the Cistercian House of Inch Abbey, an aerial view of which was recently published here (St Joseph, 1978). Recent small-scale excavation within the town would suggest that the Sherborne enclosure, like many of its Irish counterparts, was bounded by a hedge.

Sherborne has long been known for its early ecclesiastical connexions. In the opening years of the eighth century it became the site of a West Saxon bishopric, an event that seems to have marked an important stage in the extension of Saxon dynastic interest west of Selwood Forest and into Dumnonia. The reasons for the selection of Sherborne have remained obscure, but it is generally assumed to have been the site of an earlier foundation. H. P. R. Finberg (1964, 98), suggested

that there was a clue as to the identity of this earlier foundation in a fourteenth-century list of benefactors to the Sherborne Church preserved in the Cotton MS. Heading this list is a statement that Cenwalh (d. 672) gave an estate of 100 hides at *Lanprobi*. *Lanprobos*, he suggested, may well have been the name of the British monastic property on which the later town grew up. Its site, however, remained elusive.

Following recent work in Sherborne, it would seem highly likely that the large enclosure preserved in the town plan is to be identified with this *Lanprobi*. The **lann* element in the name would indicate an early Christian enclosed site or settlement.

The enclosure measures approximately 550 m from east to west, and the arrangement of the boundary would suggest that it was subtended from an area of the town called *The Green*, known to have been the site of a medieval parish chapel, a cemetery and a fair, all dedicated (or re-dedicated) to St Thomas à Becket. There is some indication

that at least part of the enclosure retained an element of an administrative function into the medieval period. The south-east section of the circuit is followed by the line of Hound Street, which gave its name to one of the tithings of the township. *Hound* seems to be a descriptive name that occurs elsewhere in the area in association with a curved boundary; and it is possible here that *street* is not derived from O. E. *straæt*, which it is not, but from O. E. *steort*, tongue, projecting piece of land, thus denoting the characteristically shaped area of ground to the west of the street, within which, at least initially, the tithing may have been confined.

Outside the *Lanprobi* boundary, and possibly related to it, are three groups of burials of unknown extent and indeterminate age, which have been disturbed from time to time in advance of building work. If these sites ever become available, or any others of similar character are found, they would clearly merit closer inspection. It may be noted that Sherborne Abbey, generally accepted as representing the site of the first Saxon cathedral church built by Aldhelm, (Gem, in Gibb & Gem, 1975, 105–10), would also occupy a position outside the precinct of *Lanprobi*.

Before Aldhelm became Bishop of Sherborne, he had been Abbot of Malmesbury where, according to William, he had received his early education at the feet of an otherwise unknown ecclesiastic by the name of *Mældub*, seemingly an eponymous

founder of Irish extraction (Lapidge, in Lapidge & Herren, 1979, 7, 9, 181–2). What may be inferred about the ecclesiastical origins of Malmesbury from a literary source may, perhaps, be discerned in Sherborne from its distinctive topography. The Irish church is known to have been in close contact with the British well before the eighth century (Hughes, 1971, 49–67), a date by which there were some 50 monastic foundations in Europe where Irish influence was dominant. It may well be that Dark Age Sherborne should be included among their number, and that the selection of the place by the West Saxon administration for a bishopric was only commensurate with its earlier importance.

Acknowledgement: Mrs Barker is grateful for the use of the town plan of Sherborne taken from an eighteenth-century map held by the Digby Estate Office, Sherborne.

FINBERG, H. P. R. 1964. *Lucerna: studies in some problems in the early history of England* (Leicester).

GIBB, J. H. P. & R. D. H. GEM. 1975. The Anglo-Saxon cathedral at Sherborne, *Arch. J.*, CXXXII, 105–10.

HUGHES, K. W. 1971. Evidence for contacts between the churches of the Irish and English from the Synod of Whitby to the Viking Age, in (eds) P. A. M. Clemoes & K. W. Hughes, *England before the Conquest: studies in primary sources presented to Dorothy Whitelock* (Cambridge).

LAPIDGE, M. & M. HERREN. 1979. *Aldhelm: the prose works* (Ipswich, Cambridge, New Jersey).

NORMAN, E. R. & J. K. S. ST JOSEPH. 1969. *The early development of Irish society: the evidence of aerial photography* (Cambridge).

ST JOSEPH, J. K. S. 1978. Aerial reconnaissance: recent results, 46, *Antiquity*, LII, 236–7, Pl. xxxii.

Refortified or newly fortified? The chronology of Dinas Powys

There is a hoary myth that the Early Historic stronghold, and subsequent medieval ringwork, of Dinas Powys, was an iron age fort re-used, or even a Romano-native farmstead. The point is of some importance in discussions of continuity or discontinuity between iron age, or Roman, social organization on the one hand, and that of the post-Roman centuries on the other. As a generalization, it must be stressed that not all forts of the fifth and later centuries AD had precursors. In logic, there are three distinct possibilities, and examples of each can be found. An Early Historic fort may build upon an iron age fort, using the exact line of the earlier defences, as at Cadbury Castle (Camelot). A late or post-Roman fort may be built, to a more or less markedly smaller area, within an iron age fort; examples are Garn Boduan (Gwynedd) or

Clatchard Craig (Fife). Thirdly, defences may be constructed in or after the fifth century AD on a site where there is no evidence whatsoever of earlier fortification. Burghead (Morayshire) would be an excellent example of this, and so is Dinas Powys. Even in the first of these three cases, there may be no reason to postulate any organizational continuity, while in the third case one must clearly argue for its absence.

The excavator's interpretation, that the Iron Age phase had no associated structures, and that the earliest defences of Dinas Powys were datable to the fifth and sixth centuries AD, is set out succinctly in an introductory summary (*Dinas Powys*, p. vii), and is then documented at length in Part One of the report. Despite this, the myth of iron age defences, re-used in the fifth century, has proved both long-lived and vigorous. Although it cannot be found in



PLATE XXXI: THE EARLY CHRISTIAN TOPOGRAPHY OF SHERBORNE
A vertical aerial view of central Sherborne, to be compared with the plan, p. 230

See pp. 229–31

Photo: Copyright reserved, University of Cambridge

the excavation report, or inferred from the evidence fully presented there, it invariably occurs in the form of a bald statement, rather than as a reasoned refutation of the original interpretation.

In order to refute a new interpretation for which no new evidence or discussion is offered, it is scarcely necessary to repeat at length the details of the published evidence and arguments: it should be enough to summarize them. At Dinas Powys, iron age material was represented by flints and more determinately by pottery attributable, in the then current classificatory scheme, to Iron A. Most of this pottery occurred in a red clay which was a natural weathering product of the Carboniferous Limestone bedrock. It appeared that the pottery and flints had penetrated the clay, partly by earthworm action, partly as a result of the trampling of men and animals. Stratigraphically, this material underlies the old ground surface beneath the ramparts (*Dinas Powys*, pp. 10, 16–17). In brief, its deposition precedes the building of all the ramparts, perhaps by a considerable period of time. There is no other pre-Roman iron age material on the site. This should be sufficient to dispose of iron age defences at Dinas Powys.

Nevertheless, it may be useful to recapitulate the chronology of the defences. There are four ramparts and ditches. Bank I, the innermost, is shown by stratified finds to be at least as late as the fifth–seventh centuries AD. In fact, a date in the

eleventh century is more likely, and Bank I is interpreted as a standard type of Norman ringwork (*Dinas Powys*, pp. 73–5). For Bank II, the only evidence is that it overlies Iron A pottery, and that it does not delimit the iron-age settlement, for similar pottery occurs under Bank III. From this it appears that Bank II and Ditch II defended the rich settlement of the fifth–seventh centuries AD (*Dinas Powys*, p. 27). Bank III is linked to Bank I by a Causeway which is secondary to Bank I but appears to have been built contemporaneously with Bank III. The revetments of Bank III and Bank IV face each other across Ditch III, and this pair of ramparts forms a unitary addition to the Norman ringwork (*Dinas Powys*, p. 80).

It is, of course, very proper that excavations should be re-interpreted in the light of new evidence, or new discussions of old evidence. But the advancement of knowledge is in no way served by the casting aside of fully-evidenced and tautly argued interpretations without a word of counter-argument. Some of the new interpretations—such as that which treats a massively-defended medieval ringwork as a native farm of the Roman period—can only be regarded as bizarre. All of them suggest that their authors have failed to read the original excavation report.

LESLIE ALCOCK

ALCOCK, L. 1963. *Dinas Powys: an iron age, dark age and early medieval settlement in Glamorgan* (Cardiff).

The King's whetstone: a footnote

Mr Nicholas Reynolds, Scottish Development Department (Ancient Monuments), 17 Atholl Crescent, Edinburgh EH3 8JN, has offered us an archaeological footnote to Miss Jacqueline Simpson's article in this journal last year (1979, 96–101). Mr Reynolds is conducting excavations at the great cremation cemetery at Sancton, East Yorkshire, where a child's grave was accompanied by, among other grave-goods, a miniature whetstone.

Miss Jacqueline Simpson has illustrated from various Old Icelandic sources the clear connexion between hone-stones used in a symbolic sense and the gods Odin and, more particularly, Thor (Simpson, 1979); and she invites a comparison between this use of the stones in the sagas and the presence of an elaborately decorated whetstone among the ceremonial regalia of the Sutton Hoo burial deposit. Her article serves, incidentally, as a timely reminder that much of our evidence for

Anglo-Saxon religion is late, and that we are prone to think back into pagan Anglo-Saxon archaeology concepts not recorded until many centuries after the conversion of the English to Christianity. How little we actually know of pagan Anglo-Saxon religion, and of the ritual significance of the many forms of graves so eagerly excavated for their contents!—what Dr Ellis Davidson has called 'the deeper question of how far these gods in the myths ever claimed real worship and allegiance from men' (1964, 47).

This note is written to point to a recent archaeological discovery, interesting in its associations, which lends some weight from the pagan Anglo-Saxon period to Miss Simpson's observations. In the course of the current series of excavations being conducted by the writer in the great cremation cemetery of Sancton, East Yorkshire (NGR SE 903403), a number of cremation urns of the




 cremated bone

Fig. 1. *Sancton Ar242*: plan showing the grave-goods lying above the cremation

type ascribed by Myres to the 'Sancton/Elkington potter' have been discovered (Myres, 1969, 129). These are characterized particularly by panels of light free-hand designs on the upper part of the pot, including circles, arches and swags, serpents and swastikas. One of these new additions to the series, Sancton A 1242, was lifted virtually intact in 1978, and its contents excavated in the laboratory. The cremated bone lay towards the bottom of the pot, below the shoulder. Several large fragments of the skull, which had cracked along unfused sutures, appeared to have been picked out and laid above the mass of bone (FIG. 1); and, immediately on top of these again, lay the grave-goods—fragments of a small bone comb (A 1242/26), a fairly large pair of miniature iron shears (/15), and a miniature whetstone (/13). Some details of these finds are given here, in advance of final publication, to provide a basis for discussion of their association.

The decoration of the urn itself, A 1242 (FIG. 2), should first be noted. It consists of eight shallow round bosses, evenly spaced on the shoulder, and at least four horizontal grooves round the neck. Between these, on the upper part of the pot, is a series of free-hand ornaments (FIG. 3): groups of three and four lines form triangles enclosing a double circle and various arrangements of one,

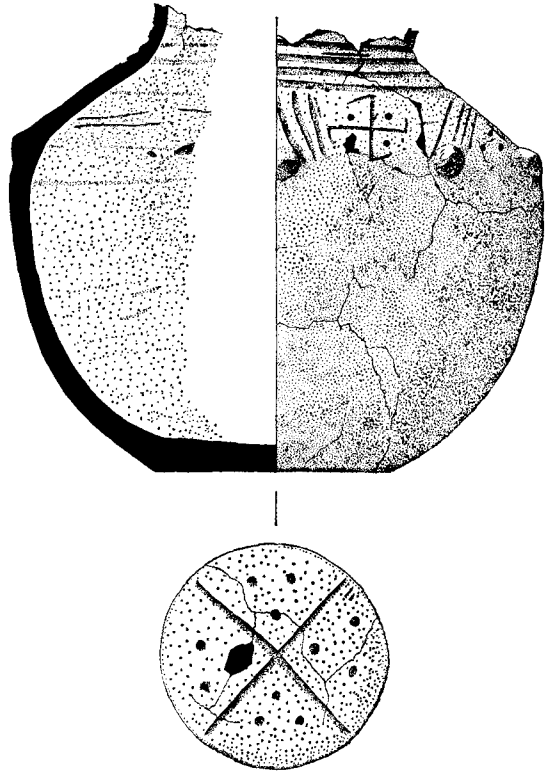
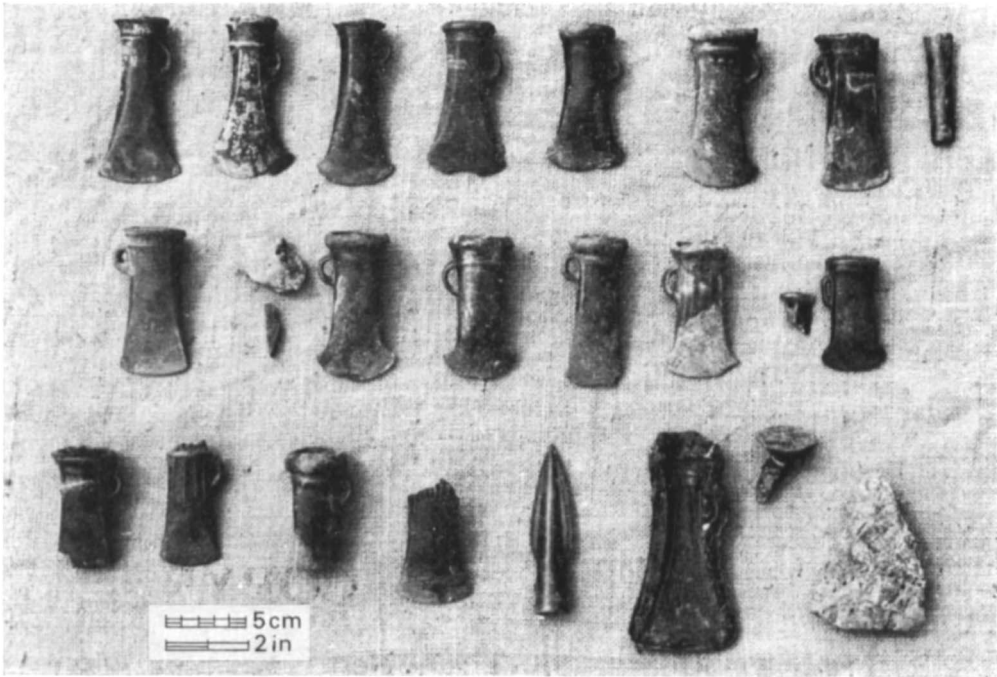


Fig. 2. *Sancton Ar242*: the urn (scale 1:3)

three, and four dots. In two adjacent panels are designs which can most conveniently be described as fir-trees, above one of which appear a very lightly drawn cross and a circular impression, whose spacing nevertheless appears deliberate, and to the right of these another larger double circle. To the right of this again is a panel with a curious double arrow; and, to complete the design, in the next panel but one, a swastika with rounded arms, and enclosing four dots. The base of the pot is marked with a cross, with groups of three dots between the arms.

The restriction of the bosses to the shoulder, as a decorative division, means that the urn cannot be called a 'true' *Buckelurne*, in the restricted Myres sense of a vessel in which a variety of bosses are used as the main element of design, a category into which the principal products of the Sancton/Elkington potter fall (Myres, 1977, 14). Myres does, however, allow into the group other non-*Buckelurne* types from Sancton which have no bosses but show much the same free-hand style (*Corpus*, Nos. 2545, 62, 74 and 2011); another



a



b

PLATE XXVIII: A LATE BRONZE AGE HOARD FROM BEESTON REGIS, NORFOLK

(a) The hoard of 21 items numbered from left to right and described in the text. (b) An enlarged view of one valve of a two-piece bronze mould (No. 19, see text)

See pp. 217-19

Photos: A. J. Lawson

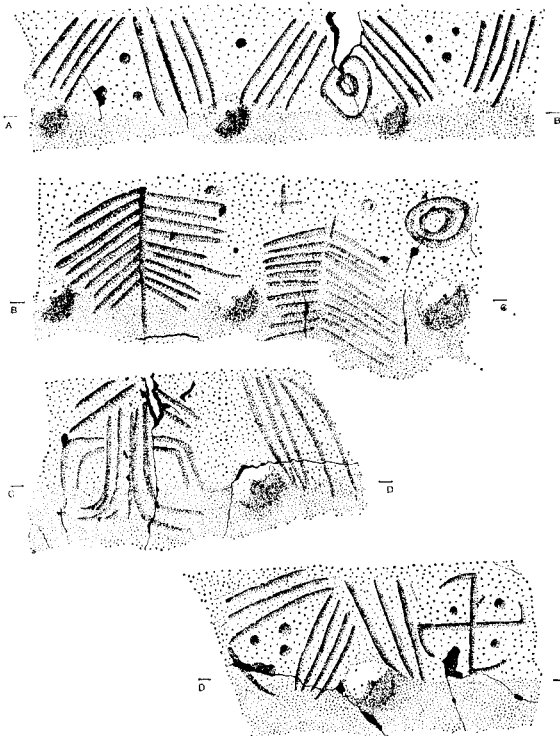


Fig. 3. The decorative scheme above the shoulder of the urn. The design runs around the vessel, reading from left to right, top to bottom (scale 1:3)

relative of these, and of A 1242, may be the urn from the Mount, York (Stead, 1958, 431, Fig. 2.1; Myres, 1977, No. 113), which displays similar decoration and a shoulder divided by bosses. A particularly noteworthy characteristic of A 1242, the York urn, and of most of the others of this broad group, is the rapidity and lightness of touch with which the free-hand design has been applied, apparently with a rounded tool some 2 mm wide; microscopic analysis of the fabric would be needed, however, to tell whether this stylistic grouping does in fact denote the products of one potter or of one workshop. Little light is shed on the iconography of A 1242 from the decoration of the other pots in the group. The swastika (often in groups) is the only symbol common to all the urns, including that from the Mount. The groupings of diagonal lines occur often, and the bunching of them to produce what is described here as the 'fir-tree effect' occurs on several of the group (*Corpus* Nos. 129, 2276, 2545 and especially 2011). None of the others has the impressed dots of A 1242, nor is there any parallel for the odd double-arrow symbol.

The grave-goods in A 1242 had been laid on top of the cremated body: inserting them into the urn cannot have been easy. The comb (FIG. 4) lay on top of the rest, and had been exposed to the full effect of the water-action which appears to erode the buried remains at Sancton: the decoration survived only on parts of the comb which had been lying face downwards on the cremated bone. The comb had been of the common Anglo-Saxon three-plate type—two outer plates decorated with a ring-and-dot motif, bound to the central teeth-bearing plate with iron rivets. The comb is single-edged and triangular, the acuteness of the upper angle perhaps suggesting, on continental analogy, an early date (Thomas, 1960; Böhme, 1974), which would not disagree with Myres's proposal that the *floruit* of the Sancton/Elkington potter lay in the late fifth century (Myres, 1977, 32). Combs occur in at least two of the other Sancton/Elkington pots (*Corpus*, Nos. 2275, 2025), though in each case the fragments are too small for their design to

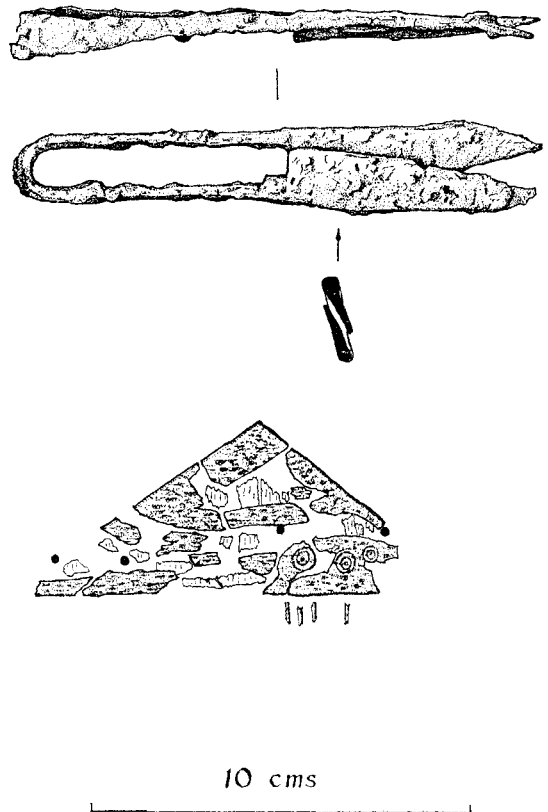


Fig. 4. Sancton A1242/15, a pair of iron shears; and A1242/26, the remains of a bone comb

be ascertained with certainty; the only associated grave-goods were beads and an iron buckle (2025).

The iron shears are of a straightforward type, made of a band of iron some 3 mm thick and 10 mm wide, bent double, and hammered flat at the ends to produce blades about 66 mm long (FIG. 4). Though shears are not uncommon in Anglo-Saxon cremations, their purpose has never satisfactorily been explained. Nowadays, they are clearly related to sheep-shears (Baldwin Brown, 1915, IV, 391), but they may have had more general application in the Anglo-Saxon period, hence their appearance in association with combs: and their consistent presence in conjunction with 'toilet' or 'manicure' sets may suggest that they have more to do with fine trimming of human beards, and perhaps eyebrows. In the only other Sancton/Elkington urn to contain shears (*Corpus*, No. 2276), the material used for the shears is bronze, and the other grave-goods are bronze tweezers and a small blade: the burial was that of a mature adult male.

The whetstone itself is small—76 mm long, just under 10 mm wide overall, and some 6 mm thick (FIG. 5) It has been carved from a fine, light-grey micaceous gritty stone. It is rectangular in profile, though all the edges are rounded, and one has been bevelled; near this latter end, a protrusion about 1.5 mm high has been left standing out from one face of the stone. There is no sign of the object actually having been used as a whetstone. It is described here as a miniature: but it can still comfortably be held in the fingers, with the thumb resting against the lump on the stone, and it could quite happily be used to sharpen, for example, the shears with which it was associated. In material and shape, the stone is strikingly like the very much larger whetstone found near grave 11 at Uncleby, Yorkshire, some ten miles from Sancton (Evison, 1975); and this itself has been closely compared with the Sutton Hoo stone. The type of stone also relates it to hones from Hough-on-the-Hill and Fonaby, Lincolnshire, and to the large fragment from C 1672 at Spong Hill in Norfolk (Hills, 1977, 27: Spong Hill has the only recorded discoveries of whetstones with cremations in this period other than Sancton (except possibly Sutton Hoo)—three associations, all of them fragments of stones, are recorded in this report). The Sancton whetstone has yet to be thin-sectioned: the related hones are all, however, likely to have a provenance in the Southern

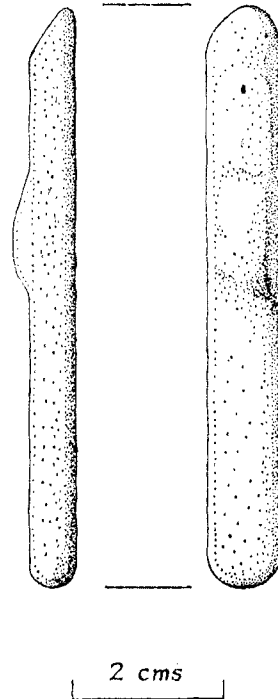


Fig. 5. Sancton A1242/13, the miniature whetstone

Uplands, North-West Pennines, or Lake District (Ellis, 1969; Evison, 1975, 84). This probable source-area, at this period, is fascinating in both political and religious terms, and adds to the feeling of importance attached to the stones as objects.

The cremated bones in A 1242 were those of a child: the cremation had been well done, and the bones thoroughly collected. Dr Keith Manchester writes: 'It looks as though it was a very young child, and even the possibility of a still-birth could not be ruled out, although this is not possible to prove'. There is no apparent age or sex differentiation in the Sancton/Elkington pots as a group, however: of the urns whose contents have survived to be studied, No. 2275 held the bones of a young adult female, Nos. 2570 and 2545 those of mature adult females, and No. 2276 a mature adult male. There are no recorded details for the skeletons associated with the other whetstones of this type, except that the Uncleby stone may have been related to a male 'warrior' grave (Evison, 1975, 83), and the grave-goods at Sutton Hoo are undoubtedly masculine.

Sancton A 1242 shows a clear association, at an apparently early phase in the pagan Anglo-Saxon period, of a whetstone and the swastika symbol. Can there be any further significance in this assemblage? There is general agreement that the swastika was used by the Anglo-Saxons as a symbol, however casually associated, of the thunder god Thor (e.g. Myres, 1969, 137; Ellis Davidson, 1964, 83), and its intensive use as a common symbol by one particular manufacturer (or stylistic group) of cremation pots lends some weight to its symbolic purpose. The connexion of one of these swastika-marked pots with the whetstone may therefore give support to the Thor-connexion argued from the sagas for whetstones (Simpson, 1979), though it adds nothing, of course, to the regal associations inferred for Sutton Hoo. The possibility of still-birth suggests the hammer-throw of the god (Ellis Davidson, 1964, 80), and the death of a child might in any case warrant such a particular association with the cruelty of fate. Was there also some fateful meaning behind the deposition of objects connected with hair—the shears and comb? Or is this religious interpretation altogether too fanciful, and the whole assemblage simply intended to cater for the growing hair of one who was to achieve maturity only in the after-life, the whetstone being present merely to sharpen the shears? Only the rarity of this type of object in burials can argue against this, and for the idea that there may have been some reason for thus specially honouring this particular child.

Even if it is a mere token, like touching wood or crossing oneself at a moment of anxiety or distress, the appearance of the swastika on Anglo-Saxon pottery seems unlikely to be simply decoration. The connexion at Sancton of a group of pots whose maker(s) seems to have had an obsession with the symbol has a further interesting aspect. One has only to work at Sancton for a short time to know that thunder is a regular attribute of the site: storms blown across the flat Vale of York break naturally on the steep edge of the chalk Wolds on whose brow the cemetery lies, and, while the rain clouds themselves will often separate and pass the site by, the thunder and lightning make themselves felt for a long time before and after the storm. This may in part be a natural feature of the hill-edge sites often chosen by the Anglo-Saxons for their cemeteries; Dr Catherine Hills tells me that she has noticed a similar prevalence of thunder while working at the equally important cremation

cemetery at Spong Hill. It seems particularly marked at Sancton, however, and damage from lightning is frequent in the immediate neighbourhood. Exactly the same is true of Goodmanham, lying along the same contour of the same Wold edge as Sancton, three miles (4.8 km) to the north. Bede records that Goodmanham was the site of what must have been, from the importance he gives it, the principal temple of the area (*Historia Ecclesiastica* ii. 13); and it can hardly be an accident that this, and the great cremation cemetery at Sancton, lie along the same contour above the same Roman road in almost adjacent parishes. Bede does not record which god or gods were worshipped at the High Priest Coifi's temple at Goodmanham—indeed, one has a strong sense of confusion between the various attributes of the early gods, Woden and Thor in particular, which later made them such striking characters in Norse mythology: there is scope for much further study here. At any rate, the remarkable assemblage of Edwin's court, which Bede described, must have listened to the missionary Paulinus within full view of the Sancton cemetery; and the storm from which the sparrow sheltered, so eloquently pictured by Edwin's advisor, would have been felt equally among the graves on the hill. Is the sparrow story itself, indeed, apparently so simple and pleasant a parable, in fact a reversal, conscious or unconscious, of the idea of entry into Woden's hall after death?

The Sancton evidence here adduced is, of course, only a single association of objects, whose significance is enhanced by a series of literary parallels. The iconography of an Anglo-Saxon burial may be merely a nod in the right direction, a combination of symbols particularly relevant to the personality or status of the person concerned, or to the gods involved in the manner and timing of his death; or there may be intentions of extraordinary complexity and subtlety, of whose real meaning we can only ever hope to catch a glimpse. It is clear, at any rate, that a catalogue of all associations, osteological and artifactual, is an essential preliminary if we wish to search these corners of the pagan Anglo-Saxon mind.

Acknowledgements: The laboratory work on Sancton A 1242 was carried out by Miss Amanda Clydesdale; the analysis of all of the Sancton bone material has been the work of Dr Keith Manchester. I am most grateful to them both, as I am to Dr Brian Hope-Taylor, Professor Leslie Alcock, and Dr David Breeze, who read and commented on a draft version of this paper.

- BALDWIN-BROWN, G. 1915. *The arts in early England* (London).
- BÖHME, H. W. 1974. *Germanische Grabfunde des 4 bis 5 Jahrhunderts zwischen unterer Elbe und Loire* (Munich).
- ELLIS, S. E. 1969. The petrography and provenance of Anglo-Saxon and medieval English hones with notes on some other hones, *Bull. Brit. Mus. (Natur. Hist.)*, Mineralogy, 2, 135–87.
- ELLIS DAVIDSON, H. R. 1964. *Gods and myths of northern Europe* (Harmondsworth).
- EVISON, V. I. 1975. Pagan Saxon whetstones, *Ant. J.* LV, 70–85.
- HILLS, C. 1977. *The Anglo-Saxon cemetery at Spong Hill, North Elmham. Part I*. East Anglian Archaeology Report No. 6.
- MYRES, J. N. L. 1969. *Anglo-Saxon pottery and the settlement of England* (Oxford).
1977. *A Corpus of Anglo-Saxon pottery of the Pagan period* (Cambridge).
- SIMPSON, J. 1979. The King's whetstone, *Antiquity*, LIII, 96–101.
- STEAD, I. M. 1958. An Anglian cemetery on the Mount, York, *Yorkshire Archaeol. J.* XXXIX, 427–35.
- THOMAS, S. 1960. Studien zu den Germanischen Kämmen der Römischen Kaiserzeit, *Arbeits- und Forschungsberichte zur Sächsischen Bodendenkmalpflege* Band 8, 54–215.

Book Chronicle *continued from p. 214*

Collected archaeological papers edited by David Skene Melvin. Archaeological Research Report 13. Toronto: Historical Planning & Research Branch Ontario Ministry of Culture & Recreation, 1979. 193 pp., 85 figs., 8 tables, \$5.00, available from Ontario Government Bookstore, 880 Bay Street at Grosvenor Street, Toronto M7A 1N8.

Wharram. A study of settlement on the Yorkshire Wolds edited by J. G. Hurst. Volume 1: Domestic settlement, 1: Areas 10 and 6 edited by D. D. Andrews & G. Milne. 167 pp., 4 pls., 71 figs. £7.00. (Subscribers to the whole series £6.00.) Obtainable from Mrs A. F. Morley, 6 Church Grove, Little Chalfont, Amersham HP6 6SH.

Studies in Archaeological Science

Principles of Archaeological Stratigraphy

Edward C. Harris

1979, xii + 136 pp., £8.00 (UK only)/\$18.50, 0.12.326650.5

Archaeological stratigraphy is the study of the predominantly man-made layering of soil and artifacts, in contrast to geological stratification which is the result of natural processes. The application of the principles of archaeological stratigraphy allow the archaeologist to determine the relative chronological order in which the stratification was created and to record its topographical and physical characteristics.

This book is not only the first to set down the basic principles of archaeological stratigraphy; it also contains many new ideas on the subject. In particular, the use of the Harris Matrix, a method for analysing and recording archaeological stratification which was invented by the author in 1973 and developed over the five years following.

Experimental Archaeology

John Coles

1979, x + 276 pp., £10.80 (UK only)/\$25.00, 0.12.179750.3 Hardback

1979, x + 276 pp., £4.80 (UK only)/\$11.50, 0.12.179752.X Paperback

Experimental archaeology is growing in interest and popularity. It is an approach to the study of life in the past which attempts to throw light on early man's activities by practical reconstruction. The subject has a long history, but has only recently become a focus of attention for both practising archaeologists and the general public. One of the aims of this work is to set out some of the rules of behaviour for experimenters; it also hopes to stimulate further work by both amateurs and professionals.

**Academic
Press**



A Subsidiary of Harcourt Brace Jovanovich, Publishers
London New York Toronto Sydney San Francisco
24–28 Oval Road, London NW1 7DX, England
111 Fifth Avenue, New York, NY 10003, USA