

All these are individual finds and therefore of limited help for association and dating. The only find that combines Types 2 and 3 is that with two silver brooches from the site of the Coventry Hospital and now in the British Museum. These were found together with coins that date the deposition of the hoard to the 1290s.<sup>4</sup> The Hambleton Brooch Hoard would fit this date well, although it is difficult to estimate how much earlier or later it should be.

#### ACKNOWLEDGEMENTS

I am indebted to John Cherry for comments and parallels; to Peter Clayton for his advice; to David Parish for the conservation.

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#### NOTES

<sup>1</sup> P. Brewis, 'Six Silver Ring-brooches of the fourteenth century from Northumberland', *Archaeologia Aeliana*, 4th Series, Vol. IV (1927), 104-08.

<sup>2</sup> John Cherry, pers. comm.

<sup>3</sup> G. Egan and F. Pritchard, 'Brooches', *Medieval finds from Excavations in London: 3. Dress Accessories c.1150-c.1450* (London, 1991), 247-71.

<sup>4</sup> J. D. A. Thompson, *Inventory of British Coinhoards*, 37, No. 103, pl. Xb (1957).

<sup>5</sup> Buckinghamshire County Museum.

#### A MEDIEVAL WOODEN HARPOON FROM THE SOUTH COAST OF ENGLAND (Figs. 12 and 13)

The Langstone Harbour Archaeological Survey project is a multi-disciplinary research project to map and record the archaeology and interpret the social and physical development of the harbour over the past 10,000 years. The area is well known for its prehistoric archaeology,<sup>1</sup> and artefacts are continually being found and recorded by fishermen and locals. One such object is reported here.

A wooden 'harpoon' was dredged from the grey silty clays of Sweare Deep by local fishermen in about 1980<sup>2</sup> and bought by the current owner Mr E. Mcleod. It was found at c. SU 730 045 on the edge of the Sweare Deep channel which connects Chichester and Langstone Harbours N. of Hayling Island; on recovery it was thought to have been stuck in the mud as if thrown or shot.<sup>3</sup> The object was conserved by the Portsmouth City Conservation Officers along with material from the Mary Rose. The wood had been air dried and treated with P.E.G. 4000 when examined and sampled for radiocarbon dating. No formal identification was made on the P.E.G. 4000 impregnated artefact, but conservation at the Portsmouth City Conservation Office recorded it as being probably yew (*Taxus baccata*), which is often used for this type of tool. It is likely to have been shaved down from a straight roundwood branch.

The object is 538 mm long and c. 8 mm in diameter tapering to a weathered point. The well finished cylindrical shaft varies between 7.5 and 9 mm in diameter and gently tapers to a worn blunted point at the butt end (Fig. 12). Heavy weathering and pitting is more evident along this taper, suggesting that it may, in part, be a product of, or becoming accentuated by, post-depositional weathering and erosion. If it was stuck into the muds the butt end would have been more water worn. The remaining length of shaft was smooth and well finished. No tooling marks could be distinguished, largely because the shaft had been well finished. The head of the harpoon is unusual; it is triangular in cross section, an almost perfect equilateral triangle with each face 13.5 mm long. Into the upper flat face a series of five paired 'barbs' have been cut. The pairs of barbs are 20 mm long and splaying at about 15° making them 12 mm wide and only projecting about a couple of millimetres

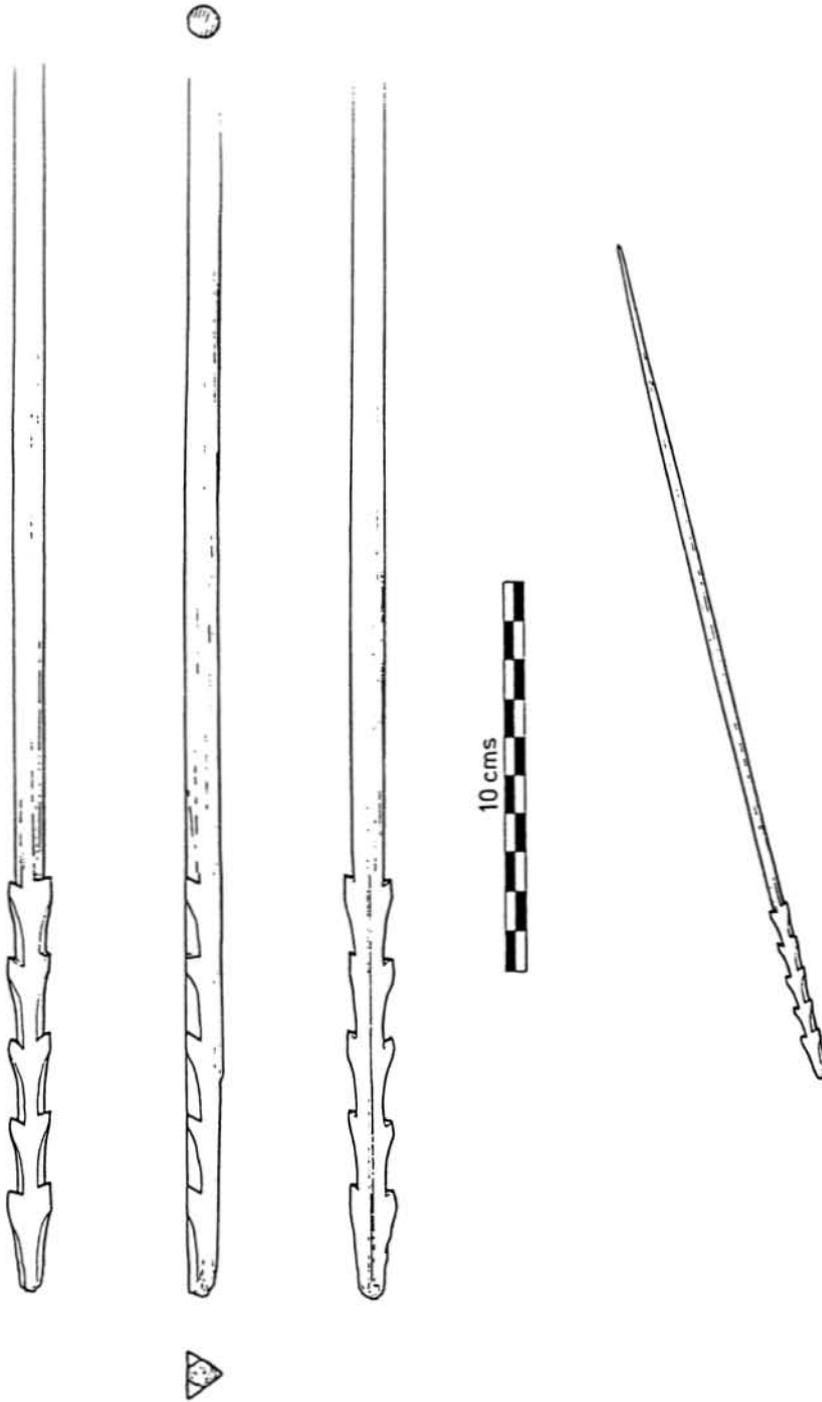


FIG. 12  
Wooden harpoon

beyond the diameter of the shaft. The 'nose' of the harpoon is worn, weathered, battered and blunted and therefore it is impossible to discern if this had been tooled into a fine point.

Initially, immediate parallels were sought amongst bone harpoons and fishing spears of the Magdalenian (Upper Palaeolithic) to Mesolithic periods, though known artefacts of this date are generally uniserial not biserial. Because of this potential significance the Oxford University Radiocarbon Accelerator agreed to provide an AMS date, and Mr E. McLeod gave permission for the object to be sampled.

#### *Radiocarbon date*

A 300 mg sample was drilled from the mid-shaft of the harpoon. This received the standard Oxford mild chemical purification treatment for wood, with the objective of isolating the datable cellulose from contaminating agents such as dust, lignins and humic acids. As P.E.G. 4000 is soluble in methanol, the process was initiated with a methanol rinse, which successfully removed the preservative. Following this, the sample was given a hydrochloric acid wash, a rinse, a subsequent caustic wash in sodium chloride, another rinse, and a further acid wash and rinse. Following the pretreatment, the purified cellulose was combusted in an oxygenating environment. The resulting carbon, in the form of CO<sub>2</sub>, was measured by the Oxford Accelerator Mass Spectrometer (A.M.S.). The delta <sup>13</sup>C of the sample was measured as -26.6 per mil, as one would expect for a sample of wood, and the resulting age, in radiocarbon years B.P., is as follows:

OxA-6459      710 ± 40 B.P.

When calibrated, using the OxCal program, it can be seen that, at the 95% level of confidence, the harpoon dates to the 13th–14th centuries A.D., with the weight of probability in the 13th century (Fig. 13).

#### *Discussion*

A prehistoric origin has been refuted by the 13th–14th century A.D. A.M.S. radiocarbon date (OxA-6459; 710 ± 40 B.P., see above). The object is certainly designed for spearing or harpooning, and its recovery from Sweare Deep, on the edge of Langstone Harbour, is entirely consistent with this. Its preservation is due to its loss at sea, and the fact that it was embedded in fine clays. Medieval parallels for this object in wood<sup>4</sup> or bone<sup>5</sup> are, however, scarce. Nothing resembling it is noted by Earwood among wooden domestic objects in Britain from the Neolithic to early medieval periods.<sup>6</sup> These are mainly confined to bucket, bowls, staves and spindles or elements of fishweirs<sup>7</sup> or boats.<sup>8</sup> Nothing as far as the authors can locate has been recovered from, for instance, waterlogged and estuarine deposits in London, Poole, Bristol or Viking deposits in York, despite the known fishing contacts in these locations.

Fish spears or harpoons are known from interglacial deposits, largely made from bone or antler, such as the recent find of an antler harpoon from Gransmoor, Yorkshire, found embedded in a piece of wood of 12th millennium B.C. date.<sup>9</sup> Beyond these records the archaeological literature is surprisingly impoverished. Despite Steane and Foreman's discussion of spearing, harpooning and shooting of fish in the medieval period,<sup>10</sup> they cite no parallels of even similar artefacts, with the exception of Lateglacial items (e.g. Clacton-on-sea).<sup>11</sup> The fact it may resemble Lateglacial objects is not unsurprising for such a utilitarian object with no functional reason for change in design.

On balance it seems likely that this is probably local, as opposed to an ethnographic medieval import. It probably formed part of a medieval fishing kit, for fishing in estuaries as well as the harbour. It is unlikely that it could be used for large sea fish such as porpoise or whale as the harpoon shaft is far too slender, but it would be ideal for small flat fish and smaller fish of c. 1–3 kg (2–5 lb), especially in shallow waters with a relatively low tidal reach, such as Langstone Harbour. In retrospect the lack of parallels is not surprising.

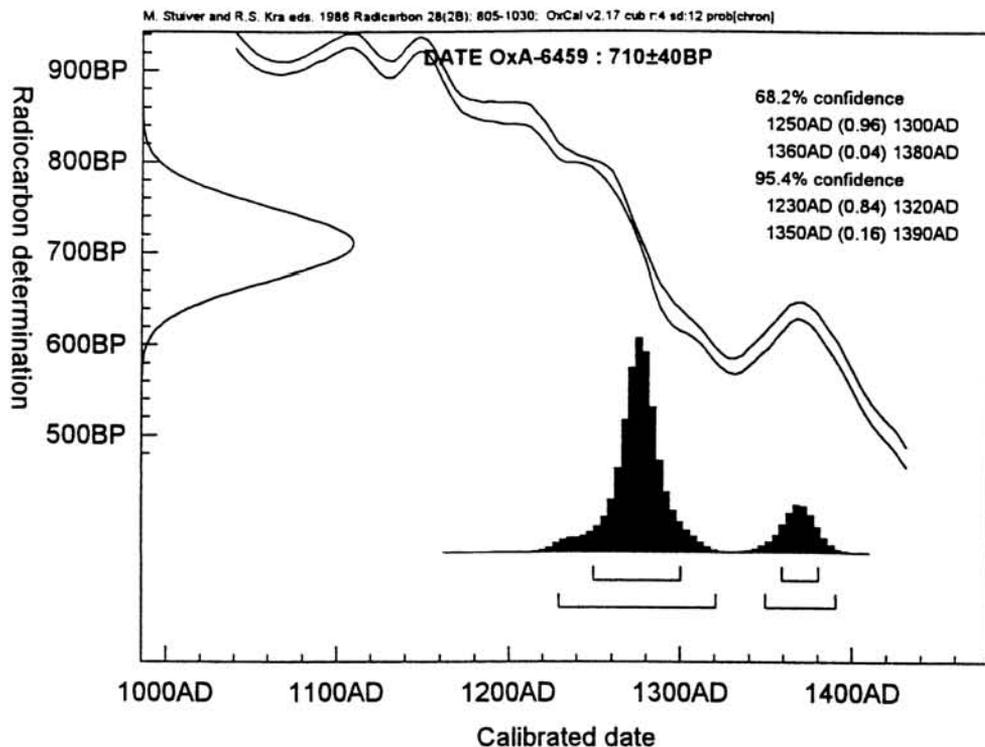


FIG. 13

Calibration, using the OxCal program, of the A.M.S. radiocarbon date

Although many medieval urban waterside waterlogged deposits have been excavated, e.g. London, Bristol and York, where waterfronts and domestic buildings have been excavated, these are not contexts from which one might expect to recover fishing tackle. This find was purely fortuitous and provides a useful addition to the wealth of other wooden artefacts, in particular those related to medieval fishing.

#### ACKNOWLEDGEMENTS

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#### NOTES

<sup>1</sup> R. J. Bradley and B. Hooper, Recent discoveries from Portsmouth and Langstone harbours Mesolithic to Iron Age, *Proc. Hampshire Field Club Archaeol. Soc.*, 30 (1974), 17-27; J. C. Draper, 'Hampshire. Survey of islands in Langstone Harbour', *Archaeol. Newsletter*, 6.9 (1958), 204; id., 'Upper Palaeolithic type flints from Long Island, Langstone Harbour, Portsmouth', *Proc. Hampshire Field Club Archaeol. Soc.*, 22 (1961), 105-06; M. J. Allen, J. Gardiner, D. Fontana and A. Pearson, 'Archaeological assessment of Langstone Harbour, Hampshire', *PAST*, 16 (1993), 1-3.

<sup>2</sup> Bingeman and Mack pers. comm.

<sup>3</sup> Ibid.

<sup>4</sup> C. Earwood, *Domestic Wooden Artefacts in Britain and Ireland from Neolithic to Viking times* (Exeter, 1993).

<sup>5</sup> A. MacGregor, *Bone, Antler, Ivory and Horn; the technology of skeletal materials since the Roman period* (London, 1985).

<sup>6</sup> Earwood, *op. cit.* in note 4.

<sup>7</sup> C. R. Salisbury, 'Primitive British Fishweirs', 76-87 in G. L. Good, R. H. Jones and M. W. Ponsford (eds.), *Waterfront Archaeology*, Council Brit. Archaeol. Res. Rep., 74 (London, 1991).

<sup>8</sup> D. M. Goodburn, 'New light on early ship- and boat-building in the London area', 105-15 in Good *et al.* (eds.), *op. cit.* in note 7.

<sup>9</sup> C. Sheldrick, J. J. Lowe and M. J. Reynier, 'Palaeolithic barbed point from Gransmoor, East Yorkshire, England'. *Proc. Prehist. Soc.*, 63 (1996).

<sup>10</sup> J. M. Stearne and M. Foreman, 'The archaeology of medieval fishing tackle', 88-101 in Good *et al.* (eds.), *op. cit.* in note 7.

<sup>11</sup> Wessex Archaeology.

<sup>12</sup> Oxford University Radiocarbon Accelerator Unit.