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# ORGANIC MATERIAL ASSOCIATED WITH METALWORK FROM WINCHESTER, HAMPSHIRE

J Watson

Summary

The identification of organic material preserved by metal corrosion products on objects from nine sites in Winchester, with dates ranging from the Roman to medieval periods. They include six sets of coffin fittings, eight knives along with two sets of box fittings, one of which may have been part of a Roman gaming board. 6 pages.

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# Organic material associated with metalwork from Winchester, Hampshire.

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## Introduction

Organic material has been preserved on a large number of metal objects from nine sites in Winchester, with various dates from Roman to medieval. The quantity of material meant that we had to select just a few of the groups of coffin nails for examination in addition to the artefacts. This means that six sets of coffin fittings and nails, eight knives with both whittle and scale tang handles, and two sets of box fittings one of which could be a gaming board. Mostly the organic materials are preserved by iron corrosion products, but two wooden objects are represented by copper alloy fittings.

All the objects were examined using a low-powered binocular microscope which allowed us to distinguish between different materials and record the grain orientation of wood and horn. In two instances samples had to be examined on the scanning electron microscope (SEM) to confirm the wood species (Watson, 1988), and their sample numbers are indicated in the catalogue. The organic material preserved on these objects included wood, horn, leather and textile, and the woods identified were ash, beech, maple, box, alder, oak. All these materials would have been readily available in Britain throughout the periods represented on these excavations, and specific objects are discussed by site.

## **Brooks** (RB)

### BR s1748
Copper alloy fitting with mineral preserved organic material. There is an extremely fine textile, with a tabby weave, between the metal and a black layer which may be the remains of leather.

### BR s3823
Stud with possible traces of leather preserved on the inside.

### BR s4436
Stud with charcoal under the head, but not enough to identify the species.

**BR s3914**
Box fittings with mineral preserved wood, *Fagus* sp. (beech), this wood was commonly used for RB and A/S boxes and caskets.

The copper alloy lockplate has iron nails and large areas of iron preserved wood which indicate that this side of the box had a radial surface. There are slots cut into the wood to possibly accommodate the hasp and the key, but not enough depth of wood is preserved to see exactly how the lock bolt was positioned although the possible arrangement is illustrated in figure 1. The lockplate itself has folded over sides which must have cut into the wood surface, and it gives the minimum thickness of the board supporting it as 15mm.

A group of iron rivets have wood preserved on them which suggests that they were mounted horizontally within the lock mechanism, and they could possibly have been a reinforcement or guide for the copper alloy lockbolt.

A group of iron nails with this metalwork have no mineral preserved organic material on them, and were probably not part of the box. As there were no corner fittings it has not been possible to suggest the type of joints used in its construction. As no nails are present it is quite likely that the original box was made with interlocking joints or simple butt joints held together with dowels or pegs.

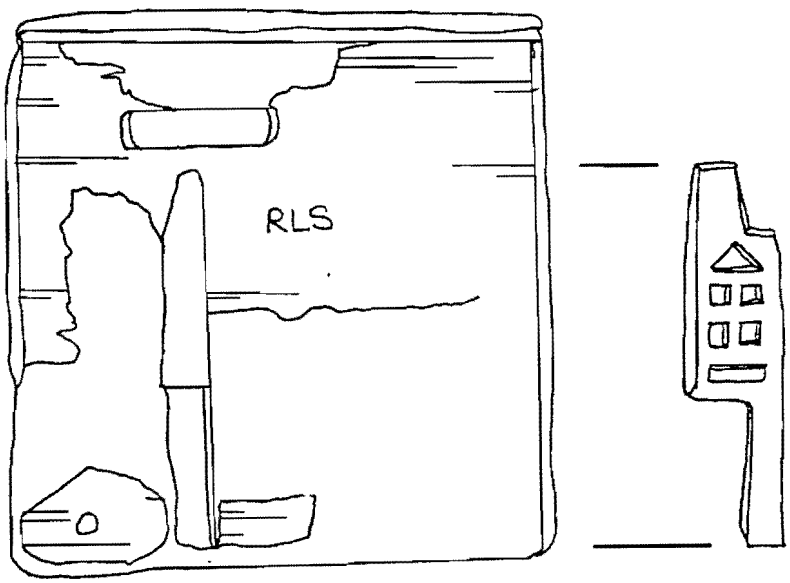


**Figure 1.** Inside of BR s3914, copper alloy lockplate with mineral preserved wood (actual size).

**Chester Road** (late RB)

**CHR 761 128 f24 107**
Iron knife with traces of horn handle.

**Crowder Terrace** (C12-13th)

**CT 1974 TrV FP15**
Group of iron fittings from the Jewish cemetery.
9c: iron corner brackets which indicates that both of the sides represented were made from *Fraxinus* sp. (ash) boards with a radial surface. However, the type of corner joint used to construct the coffin was not obvious.
391: iron nail indicates that one of the sides was made from a board c.14mm thick.

**Henley's Garage** (RB)

**HG 85 III 802 342**
Copper alloy mounts from a rectangular wooden object, probably a type of box, made from *Acer* sp. (maple). The corner brackets appear to have been mounted on the inside of the corners, as there is no obvious deformation of the metal, which one would expect if they had been turned inside out.

Another strip must have originally been placed over a corner, as one side has been mounted on the wood cross section and the other on the tangential surface. The cross section portion may indicate that the sides were at least 17.8mm thick, if just simple butt joints had been used in its construction.

At least one surface of this object appears to have been decorated, as there are the remains of six parallel lines incised with a v-shaped engraver, c.2mm wide and very shallow less than 1mm deep, and around 1mm apart. This decoration has been cut into the cross section of the wood.

As only a few fragments of this object remain it is difficult to be certain what the wooden object originally was. The presence of reinforcing or decorative corner brackets inside a box-like structure, along with carved decoration may point to it being a possible gaming board similar to one found in a burial at Colchester. That gaming board was also made of maple, which may add support to this suggestion.

SEM B777

**St. Bartholomew's School**

**SBS 83 55 106**
Scale tang knife with copper alloy rivets. There are traces of the wooden scales, few diagnostic features remain but they could possibly be *Buxus* sp. (box) if they follow the same pattern as the scales identified in *Knives and Scabbards* (Cowgill *et al*, 1987).
SEM B778

**St. John's Street**

**SJS 76 335 f311 729**
Iron whittle tang knife with a handle made from two pieces of horn*, the join is clearly visible (see fig.2). Traces of organic material on the blade are possibly leather and could be the remains of a sheath.

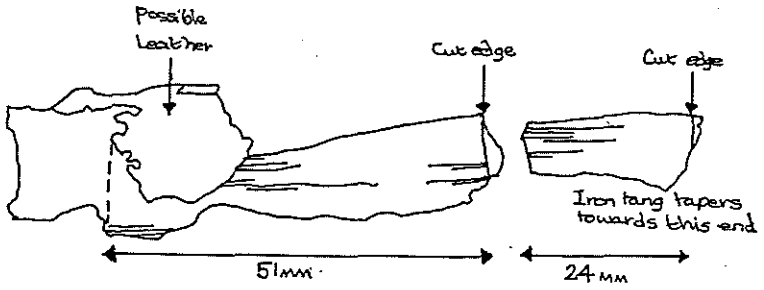


**Figure 2.** Organic material preserved on whittle tang knife (actual size).

**St. Martin's Close** (late RB)

**Grave 39**
The coffin in this grave is represented by 8 huge nails with triangular heads which would have protruded from the wood surface. The nails were used to attach panels of *Fraxinus* sp. (ash) that appear to be between 55-80mm thick, and in the main exhibit radial surfaces. Sufficient wood is preserved in places to see that slow-grown ash was used with around 15 rings over 20mm.

**Grave 52**
The coffin from this burial is represented by 13 nails.
136: this nail indicates that the coffin was made from *Quercus* sp. (oak).

*Very large nails from a lead lined wooden coffin made of *Fraxinus* sp. (ash). The panels represented by the nails have mainly radial surfaces, which were between 86-97mm thick. A small group of nails were also found with this burial which are thought to belong to a small box, but unfortunately no wood is preserved on them.

**Sussex Street**

**SXS 1976 TrVIII 82 f10 19**
Iron whittle tang knife with remains of the wooden* handle, *Acer* sp. (maple). extending over the blade by around 5mm.
SEM B779

**SXS 1976 151 f30 268**
Iron whittle tang knife with remains of horn handle. On one side of the blade are fragments of plant stems.

**SXS 1976 984 619**
Possible iron chisel with collar and the remains of the wooden* handle, but not identifiable even though the sample appeared to be in a good condition.
SEM B780

**Victoria Road**

**VR 78 f957 con3831**
2 whittle tang knives, one with traces of the original handle*, but not well enough preserved to identify species.

**VR 78 f5615**
Medieval shield boss with "sunburst" shaped flange, complete rivets indicate that the shield was 7mm at this point. Only leather, c.1mm thick, was preserved on the inside of the flange.

**VR 78 TrXIV f8580 con3868 ph529**
11-12th century whittle tang knife with a single piece wooden* handle extending onto blade, made from *Alnus* sp. (alder).
SEM B781

**Grave 107** (late RB)
There are around 30 nails associated with this coffin, between 50-70mm long. The number of nails used indicates that this was a nailed rather than a jointed construction. There are traces of wood preserved on several nails, *Quercus* sp. (oak).

**Grave 108** (late RB)
Over 50 nails of varying sizes, between 50-90mm, are associated with this coffin. Again this coffin must have been nailed together rather than jointed. Traces of wood are preserved on several of the nails, *Quercus* sp. (oak).

## References


Cowgill, J.; de Neergaard, M.; and Griffiths, N.; 1987
*Knives and Scabbards*, HMSO, 25-32.

Crummy, P.; 1997
"Colchester: The Stanway burials", *Current Archaeology*, No.153, 337-342.

Hall, R.A.; and Whyman, M.; 1996
"Settlement and Monasticism at Ripon, North Yorkshire, from the 7th to 11th centuries A.D.", *Medieval Archaeology*, Vol.XL, 62-150. [coffin fittings 99-114]

Mills, J.M.; 1993
"Iron coffin nails and fittings", in D.E.Farnell and T.L.Molleson, *Excavations at Poundbury 1966-80, Vol II: The Cemeteries*, Dorset Natural History and Archaeological Society Monograph Series Number 11, 114-129.

Watson, J.; 1988
"The Identification of Organic Materials Preserved by Contact with Metal Corrosion Products using the SEM.", in S.Olsen (ed), *The Use of the Scanning Electron Microscope in Archaeology*, BAR International series 452, 65-76.