Ancient Monuments Laboratory
Report 54/86

THE IDENTIFICATION OF WATERLOGGED WOOD FROM HOUSESTEADS FORT, HADRIAN'S WALL.

K M Whittaker

Ancient Monuments Laboratory Report 54/86

THE IDENTIFICATION OF WATERLOGGED WOOD FROM HOUSESTEADS FORT, HADRIAN'S WALL.

K M Whittaker

Summary

Identifications are given of fragments of waterlogged wood recovered from excavations in 1984. The assemblage can be directly attributed to human activity The bulk of the assemblage seems to be waste trimming from various tree species which were probably locally available. A number of exotics are present for which there may hsve been specific uses, in particular Castanea sativa (sweet chestnut) which is probably a Roman introduction to Britain.

Author's address:

3B Chigwell Road
South Woodford
London E18.

The following tables are the results from the identification of waterlogged wood extracted from the samples submitted to the Ancient Monuments Laboratory (AML) for analysis.

H20/I0/48 H84/6 AML No. 85I429

Name	Common Name	No. pieces id.
Picea / Larix ssp.	Spruce / Larch	I
Betula ssp.	Birch	4
Alnus glutinosa (L.) Gaertn.	Alder	5
Corylus avellana L.	Hazel	9
Quercus ssp.	Oak	20
Salix /Populus ssp.	Willow / Poplar	8
Sambucus ssp.	Elder	I

H20/I0/48 H84/8 AML No. 85I43I

Name	Common Name	No. pieces id.
Picea / Larix ssp.	Spruce / Larch	2
Taxus baccata L.	Yew	2
Prunus ssp.	Blackthorn	I
Crataegus ssp.	Hawthorn	3
Hedera helix L.	Ivy	I
Betula ssp.	Birch	9
Alnus glutinosa (L.) Gaertn.	Alder	I5
Corylus avellana L.	Hazel	2I
Castanea sativa Mill.	Sweet Chestnut	2
Quercus ssp.	Oak	43
Salix / Populus ssp.	Willow / Poplar	23

H20/I0/42 H84/5 AML No. 85I428

Name	Common Name	No. pieces id.
Corylus ssp.	Hazel	I4
Quercus ssp.	Oak	27

Preparation and techniques of analysis

The samples were wet sieved to remove extraneous sediment adhering to the wood. The wood was then placed in labelled self-sealing polythene bags whilst still wet. Each individual fragment of wood was thin-sectioned along the tangential, transverse and radial sections, using a razor blade. The thin sections were then mounted on a microscope slide, suspended in water, and examined under a high powered microscope at up to XI00 magnification. Identification was based on Schweingruber's "Microscopic Wood Anatomy " and checked with the AML wood reference collection. Each individual fragment, once identified was placed in an individual polythene self-sealing bag and labelled.

Discussion

The wood displayed a high degree of preservation and consisted almost entirely of fine branch/twig aspects of the trees/shrubs from which they originated. A number of the fragments showed signs of having been cut deliberately, usually seen as roughly chopped ends, or shallow chips removed from the surface of the fragment. The overall impression therefore is that this assemblage of wood is waste trimmings discarded as rubbish.

The exact nature of the human activity/activities giving rise to this assemblage is difficult to establish. The woods present display a wide variety of characteristics in terms of their properties and the uses to which they could be put. The overall impression is that this assemblage represents a casual collection of wood material to fullfill a function for which any type of wood material would suffice. If this assumption is correct, then this assemblage can be regarded as very generally reflecting the local woodland/scrub flora.

However, there are a number of types of wood which do not conform to this explanation, in particular Taxus baccata (Yew) and Castanea sativa (Sweet Chestnut) Therefore there must be two or more activities giving rise to this assemblage.

Taxus baccata (Yew) is a plant more at home in chalk/limestone situations. In addition, it is a species whose wood is often prefered for the manufacture of weapons and tools, due to its close grained, flexible properties. It may therefore be an import to the site for the purpose of tool and/or weapon manufacture.

Not so easy to explain is the presence of Castanea sativa (Sweet Chestnut). A native of the Mediterranean, it is believed to have been introduced by the Romans. They were known to have thought highly of the nuts produced by Castanea, which they used for culinary and medicinal purposes (Wilkinson I981). Its properties as a wood however, they regarded as inferior to oak, so it is probably for the fruit that they brought the plant with them.

The presence of the wood of Castanea has been recorded within Roman levels at six sites in Southern England (Godwin I975). The climate of that area would be more in keeping with the requirements of Castanea, i.e. warm summers, however it is not inconceivable that attempts might have been made to plant it in the vicinity of Housesteads. Today Castanea can be found within plantations throughout most of Britain and the Roman climate would not have been so different from the present as to render growth impossible.Wilkinson I981 doubts that the Romans would have appreciated the fruits that would ripen in Britain, however Rackham I980, refers to the nuts produced in Britain as " they are abundant in some years, are of better flavour (especially when frosted) than imported chestnuts".

Therefore the presence of Castanea at Housesteads corroborates the view that Castanea sativa was a Roman introduction. Its presence so far north at such an early stage of its introduction is surprising, but not unexpected given the Roman fondness for the fruit, which given Rackham's experience may have been quite palatable to them.

Conclusion

Unlike most assemblages of waterlogged wood, this assemblage can be directly attributed to human activity/activities. The bulk of the assemblage seems to be waste trimmings from various tree species which were probably locally available. A number of exotics are present for which there may have been specific uses, in particular Castanea sativa (Sweet Chestnut) which is probably a Roman introduction to Britain.

Acknowledgements

My thanks to the staff at AML, Fortress House, in particular Miss Jacqui Watson who provided advice whenever I asked, and who confirmed my Castanea sativa identifications. Also my thanks to Nick Balham and Joy Ede and finally to Helen Keeley for her help and patience.

Bibliography

Clapham, A.R., Tutin, T.G. and Warburg, E.F. 1964
Excursion Flora of the British Isles CUP

Dimbleby, G. 1978
Plants and Archaeology. Paladin Books.

Godwin, H. 1975
History of the British Flora. CUP.

Jane, F.W. 1956
The Structure of Wood. Adam and Charles Black.

Rackham, O. 1980
Ancient Woodland. Edward Arnold.

Schweingruber, F.H. 1982
Microscopic Wood Anatomy.

Taylor, M. 1981
Wood in Archaeology. Shire Publications Ltd.

Wilkinson, G. 1981
A History of British Trees. Hutchinson and Co. Ltd.