

Ancient Monuments Laboratory Report 59/89

PLANT REMAINS FROM 36 ALDWARK (POLICE GARAGE), YORK.

Philippa Tomlinson BSc

AML reports are interim reports which make available the results of specialist investigations in advance of full publication They are not subject to external refereeing and their conclusions sometimes have to be modified in the light may of archaeological information that was not available at the time of the investigation. Readers are therefore asked to consult the author before citing the report in any publication and to consult the final excavation report when available.

Opinions expressed in AML reports are those of the author and are not necessarily those of the Historic Buildings and Monuments Commission for England. Ancient Monuments Laboratory Report 59/89

PLANT REMAINS FROM 36 ALDWARK (POLICE GARAGE), YORK.

Philippa Tomlinson BSc

Summary

A total of twenty-four samples has been examined from fourteen contexts. The contexts were mainly from Anglo-Scandinavian pits, a probable Anglo-Scandinavian soil layer and a few post-medieval deposits. Very few plant remains were preserved, which means that little analysis of interpretation could be carried out. Copies of the Appendices are held at the Ancient Monuments Laboratory and the Environmental Archaeology Unit.

YAT Site Code: 1983.1

Author's address :-

Philippa Tomlinson BSc

Environmental Archaeology Unit University of York Heslington YORK YO1 5DD

Introduction

Excavation by York Archaeological Trust took place at 36 Aldwark, York, in 1983. The sequence of deposits consisted of: a possible Roman road overlying the 'natural' soil; various pits and post-holes cutting the Roman road, which were in turn sealed by a dark brown clay loam layer, the pottery of which suggested an Anglo-Scandinavian date. Above this was a clay layer with pebbles, of post-conquest date. The final sequence of dark clay 'loams' (sic) with a few sherds of 12th-13th century pottery, was tentatively interpreted as representing continuous, though slight, use of the area as gardens. There were no medieval pits. The archaeology is described by Brinklow (1986).

General laboratory and interprative methods

Laboratory methods used by the Environmental Archaeology Unit are described in detail elsewhere (Kenward <u>et al</u> 1980, Kenward <u>et al</u> 1986, Hall forthcoming). In brief, the GBA (general biological analysis) samples were examined by two or more of the EAU Fellows when they were first brought to the laboratory from the store. The sediment and its inclusions were described using a standard recording sheet (SMAT sheet). This description is given for each sample in the results section below. A decision was then made on the processing required, this is also indicated below.

The processing carried out on each sample is shown after the description. Apart from samples which were given no further action (NFA), the majority where processed for insects using a one kilogramme 'test' sample (T) (Kenward <u>et al.</u> 1986). Plant remains were examined from the wet residues (in water) and floats (in alchohol) left after insect processing. They were then recorded using the 'rapid scanning' technique and a four-point scale of abundance (Hall, forthcoming). Plant remains were also recorded from the bulk-sieved samples (BS) which had been previously processed. Samples which were analysed for intestinal parasites (P) and loss on ignition (S) are also shown.

The botanical record is stored in a text file (currently ald36w.dat) on the University of York mainframe VAX cluster computer, and analysed using DATATRIEVE. The complete lists of taxa and other material for each sample are given in Appendix 1.

Interpretation of the botanical material follows the system which Allan Hall has developed (Hall forthcoming). This analyses the plant taxa according to their ecologial and use groups taking in to consideration the semi-quantitative scoring of each taxon in a sample as well as the the strength of the affinity of the taxon to each of the ecological/use groups to which it is assigned. The results of this analysis are shown in the Appendix 3. The abbreviations of the ecological groups which are used are listed in Appendix 2.

Methods

Analysis of the biological remains took place from September to November 1987 when twenty-three samples were brought up from the store. Six samples had been bulk-sieved in 1983-4. Ten 'tests' and three 'spot' samples were processed. Five samples were returned to store with no further action, as they were felt to contain no potential for biological analysis. Nine samples, listed, but not found in the store, had no sample forms. These have, therefore, been ignored.

The raw samples were described by a 'committee' in September 1987. Sub-samples were taken for each process required. The 'tests' were processed by Catharine Fisher.

The Site

The majority of samples were from the fills of the pits which cut into the ?Roman road. No samples were taken or analysed from the 'natural' material at the base of the site, nor from the main structure of the putative Roman road. There were only a few contexts, in a simple sequence, on this site so the archaeologist has not produced any phasing. The samples have been grouped by the author as shown below.

GROUP 1:

Pits cutting the ?Roman road [1039]

Six contexts from at least four different pits have been sampled. A total of 11 samples were taken. Five bulk sieved samples and four 1kg and one 3kg tests have been processed and examined.

GROUP 2:

Probable Anglo-Scandinavian soil layer

Four samples were taken from two contexts from this dark brown clay loam layer which overlay the pits of Group 1. An Anglo-Scandinavian date for this deposit was suggested by the pottery evidence. One BS and two tests have been carried out.

GROUP 3:

Post-medieval

One sample was taken and a test carried out from a brick-lined drain-fill dated to post AD 1829. Three samples were taken and three tests carried out on subsamples from a sample of soil associated with, or underlying, a wooden floor. Four contexts have been sampled from this Group.

Spot samples

Four spot samples were taken for identification. Three of wood and one of root fragments.

Results

In the following section the sediment description is given for each sample, followed by an indication of the processing which was carried out. The botanical results for groups of samples are amalgamated as there are so few plant remains to discuss. The full results are listed in the appendices.

GROUP 1:

Fills of pits cutting 1039

Context 1041, sample 22

Dark grey-brown, moist, plastic, slightly humic silt. This sample consisted of 0.15 kg of soil associated with wood spot sample 8009, in the pit-fill. TPS.

Context 1041, sample 9

Mid grey-brown, moist, plastic and slightly crumbly, slightly heterogeneous, slightly sandy silty clay with limestone, tile and pot fragments and white flecks all present. BS.

Context 1044, sample 15

Mid-grey and varicoloured, moist, plastic, homogeneous, slightly sandy silty clay; very small stones and tile present, inclusions of lenses of pure reddish-buff coloured clay. BS.

Context 1052, sample 14

Mid-dark, grey-brown, moist, plastic to crumbly, homogeneous, slightly sandy clay silt with very small stones, charcoal and shellfish present. TPS. BS.

Context 1053, sample 17

Dark red-brown, moist, plastic to crumbly, homogeneous, slightly humic, silty clay with charcoal, twig fragments and wood fragments present, also ?hair and plant debris present. TPS. BS.

Context 1053, sample 21

Dark grey, moist, plastic, homogeneous, slightly sandy silty clay, with very small stones, wood fragments, tile and orange pink natural clay inclusions all present. TPS.

Context 1055, sample 19 (A)

Mid-dark, grey-brown, moist, plastic, very heterogeneous, sandy silty clay, with small and very small stones, limestone, tile and pink orange clay inclusions all present. NFA.

Context 1055, sample 20

Mid-dark, grey-brown, moist, plastic, slightly heterogeneous, slightly

sandy silty clay, with small and very small stones and pinkish orange brown natural clay inclusions all present. TPS.

Plant remains from Group 1

The preservation of organic material was very poor though there was some mineralisation. Sample 14 yeilded some mineralised faecal concretions. There were a few charred cereal grains (Triticum spp. or Cerealia indet.) Sample 20 had some Prunus spp. fragments and samples 17 and 21 had P. spinosa (sloe). Otherwise, the plant remains consisted mainly of nitrophilous plants such as <u>Hyoscyamus niger</u>, <u>Solanum sp., Chenopodium spp. and Atriplex spp., a few weeds of cultivation such as <u>Anagallis arvensis</u>, <u>Anthemis cotula</u>, <u>Lapsana communis</u> and a variety of other wasteland taxa such as <u>Aethusa cynapium</u>, <u>Urtica spp. and Carduus/Cirsium</u>. There were fish bones, mineralised fly puparia, mammal bone fragments, but very little else.</u>

Although relatively few taxa are present, sample 17 had the most with 23. The analysis shows that the largest ecological group represented is CHEN (nitrophilous weed communities of cultivated and other disturbed land), with quite high scores for ARTE (nitrophilous tall-herb weed communities of waste places etc.) and SECA (weeds of cereal fields).

The fact that sample 17R has different ecological/use groups predominating from 17T and 17W probably derives from the paucity of taxa (13) in that sub-sample. It underlies the difficulty of using samples containing such a limited number of plant species on this type of ecological interpretation.

The three bulk-sieved samples, context 1055, sample 18, context 1040, sample 16 and context 1053, sample 17 had a similar range of nitrophilous weeds, some arable weeds and a very few unidentified charred grains.

It will be interesting to see if any parasites eggs have survived in these samples, as it is likely that the pit fills contained 'cess', although most of the foodplant indicators that would be expected have not been preserved.

GROUP 2

?Anglo-Scandinavian soil layer

Context 1038, sample 0

Mid grey, moist, plastic, homogeneous, slightly sandy clay, with very small and small stones, limestone, tile and charred grain all present. TPS.

Sample 0 and the BS sample 5 from this context had a few weeds such as <u>Hyoscyamus niger</u>, <u>Chenopodium album</u>, <u>Sambucus nigra</u> and <u>Rubus</u> <u>fruticosus</u>. and some charred grains (<u>Triticum spp.</u> and <u>Avena spp.</u>), but very little else. Sample 0 had several <u>Ranunculus sceleratus</u> seeds and <u>Daphnia</u> ephippia, suggesting some aquatic influence, either in the form of water being brought to the site and discarded onto it, or the existence of some pond or pool nearby.

Context 1038, sample 4

Mid-dark grey, dry to moist, plastic, homogeneous, clay. BS.

Context 1038, sample 6

Small spot sample consisting of greenish concretions. PS.

Context 1043, sample 8

Mid, slightly purplish, grey-brown, moist, crumbly heterogeneous, sandy clay with very small and small stones present. TPS.

Sample 8, from soil beneath cobbles, had no plant remains, apart from <u>Urtica dioica</u>. It was very stony, with some bone, quartz sand and tile/brick fragments, typical of the range of inorganic and organic refuse found in most of these samples.

GROUP 3

?Post-medieval

Context 1001, sample 1

Dark grey, moist, plastic, homogeneous, slightly sandy silt with micaceous sandstone, mortar and tile all present. TPS.

This sample was from a drain fill. It had <u>Sambucus nigra</u> and <u>Chenopodium</u> sp(p). seeds, fish bone and animal bone fragments, but nothing else.

Context 1035, sample 2

Mid-dark grey-brown, moist, plastic, homogeneous, slightly silty clay with very small stones, limestone, charcoal, rotted wood fragments and tile all present. TPS.

This soil from beneath a wooden floor had various monocotyledenous stems, (including some cyperaceous ones with papillae; see Tomlinson in press), <u>Sambucus nigra</u>, <u>Urtica spp.</u>, <u>Chenopodium album</u>, <u>Atriplex sp.</u>, <u>Lamium Section Lamiopsis and Eleocharis palustris</u>.

Context 1034, small find sample 8000

A 'test' was carried out from this sample although it was taken as a small find, and there is no sediment description. Although the preservation of material was good, there was not an abundance of seeds. This context was associated with a wooden floor. The sample contained many <u>Salix</u> sp. buds and twigs and indeterminate wood fragments. There was one <u>Hydrocotyle vulgaris</u> mericarp, some <u>Carex</u> spp., <u>Sambucus nigra</u>, <u>Urtica</u> sp(p). <u>Chenopodium album</u>, <u>Atriplex</u> sp(p). and Ranunculus Section Ranunculus. There was also some fish bone.

The basically woody/twiggy nature of this sample is not shown up

by the analysis which indicates the main ecological/use groupings as being CHEN [13] and FOOS, food plants, [9]. These presumably represent wasteland and possible food rubbish material dropped onto the floor and incorporated into it. The ext two main groups are TRSH, which includes trees and shrubs from woodland and hedgerow [7] and BIDE comprising nitrophilous weed communities of places subject to periodic inundation [7].

Context 1031, sample 3

A very mixed and vari-coloured mid-grey, pinkish material, with whitish ?mortar/ash and yellow and greenish tinges, very heterogeneous on a lmm scale. A mixed spread, from a brick-lined drain fill. NFA.

Spot samples

Context 1039, sample 7

This spot sample consisted of root fragments. These were probably modern as there was no other organic material in the sample, apart from charcoal.

Wood Identifications

Wood from the following samples was identified by Dr. Allan Hall:

Context 1043, sample 10: Salix sp. Context 1045, sample 11: Quercus sp. Context 1041, spot sample 8009: Quercus sp.

Conclusions

The pits cutting the putative Roman road contained poorly preserved plant material which together with the inorganic fraction, may possibly suggest some form of rubbish, possibly containing faecal material.

The possible Anglo-Scandinavian soil layer had a very few charred grains, which could well have been re-distributed from elsewhere. Although the presence of nitrophilous weeds may indicate some degree of soil disturbance, the total assemblage of plant remains suggests neither the nature nor extent of the human activity on the site.

Apart from sample 8000 which may represent the remains of a willow brushwood floor or roof, there is very little useful information from the post-medieval samples.

Acknowledgements

My thanks to Dr. A.R. Hall who checked my identifications and who established the computer analysis system for plant remains. Catharine Fisher processed the majority of the test samples.

Bibliography

Brinklow D. (1988) 36 Aldwark - The Medieval Levels. p 127-8 In: Hall A.R., MacGregor H. and Stockwell M. 'Medieval tenements in Aldwark and other sites'. The Archaeology of York 10/2.

Hall A R, Jones A J G, Kenward H K and O'Connor T P (forthcoming) Environmental Evidence from the Colonia: Tanner Row and Rougier Street. <u>The Archaeology of York 14/6</u>.

Kenward H K, Hall A R and Jones A K G (1980) A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. Science and Archaeology 22, 3-15.

Kenward H K, Engleman C, Robertson A and Large F (1980) Rapid scanning of urban archaeological depostis for insect remains. <u>Circaea</u> 3, 163-72.

Tomlinson P.R. (in press) Vegetative plant remains from waterlogged deposits indentified at York. In: Renfrew J. (ed.) Proceedings of the 7th Symposium of the International Workgroup for Palaeoethnobotany, Cambridge, 1986.

LIST OF APPENDICES

Copies of these Appendices are held at the Ancient Monuments Laboratory and on the University of York Vax mainframe computer at the Environmental Archaeology Unit, York.

- Appendix a) Complete list of plant taxa for each sample, arranged in context number order.
- Appendix b) List of ecological/use groups for each sample, arranged in context number order.

Appendix c) List of the ecological/use groups codes used in the analysis, showing their meanings.