



Centre for Human Palaeoecology  
Department of Archaeology  
The King's Manor, York YO1 7EP

## **Reports from the Centre for Human Palaeoecology, University of York**

Report **2008/07**

**Plant and invertebrate remains from two post-medieval sites in  
Belfast: St Anne's Square (sitecode: SAS/07) and 11 Custom  
House Square/55-63 Waring Street (CHS/07)**

by

Allan Hall and Harry Kenward

Department of Archaeology, University of York, The King's Manor, York YO1 7EP, UK.  
Email [arh1@york.ac.uk](mailto:arh1@york.ac.uk).

23 April 2008

THE UNIVERSITY *of York*

**Plant and invertebrate remains from two post-medieval sites in Belfast:  
St Anne's Square (sitecode: SAS/07) and 11 Custom House Square/55-63  
Waring Street (CHS/07)**

*Allan Hall and Harry Kenward*

Department of Archaeology, University of York, The King's Manor, YO1 7EP

**Summary**

*Three samples of organic post-medieval deposits were submitted for examination of their content of macrofossil plant and invertebrate remains with particular regard to the identification of the deposits as being related to tanneries. No very convincing evidence for this was found, though the samples provided some well preserved plant (and a few insect) remains pointing to a number of probable sources—other than a tannery!—for the organic material.*

**Keywords: ST ANNE'S SQUARE; CUSTOMHOUSE SQUARE; BELFAST; POST-MEDIEVAL;  
PLANT MACROFOSSILS; INSECT REMAINS; INVERTEBRATES; TANNING**

***The Centre for Human Palaeoecology brings together archaeological scientists within the University of York whose research interests include past human activity, economy and environment.***

**Disclaimer: this report is one of a series produced by staff and colleagues of the Centre for Human Palaeoecology, based in the Department of Archaeology, University of York. It contains material that may eventually be intended for publication and, as such, may represent only an interim statement. When quoting this report, please refer to it in this way:**

Hall, A. and Kenward, H. (2008). Plant and invertebrate remains from two post-medieval sites in Belfast: St Anne's Square (sitecode: SAS/07) and 11 Custom House Square/55-63 Waring Street (CHS/07). *Reports from the Centre for Human Palaeoecology, University of York* 2008/07. 5pp.

Please address all non-academic enquiries concerning these reports to the Centre for Human Palaeoecology, Department of Archaeology, University of York, The King's Manor, York YO1 7EP (e-mail: [biol38@york.ac.uk](mailto:biol38@york.ac.uk)).

# **Plant and invertebrate remains from two post-medieval sites in Belfast: St Anne's Square (sitecode: SAS/07) and 11 Custom House Square/55-63 Waring Street (CHS/07)**

## **Introduction**

Material from two post-medieval contexts at a site in St Anne's Square (grid ref J 3386 7451), in the Cathedral Quarter, and from one post-medieval context at a nearby site in Custom House Square (J 3419 7457), Belfast, was made available through the good offices of Lianne Heaney at Northern Archaeological Consultancy Ltd. The deposits were thought in both cases to be related to tanning and a specific aim of the investigation of plant and invertebrate macrofossils was to test this interpretation.

## **Methods**

The samples submitted were examined prior to disaggregation of a subsample, and their laboratory sediment descriptions (and subsample sizes) were as follows:

*St Anne's Square (EHS licence AE/06/180):*

Sample 7 (fill Context 47 in barrel 1, 18<sup>th</sup> century): 1.5 kg taken from a sample of 2.1 kg of light to mid (slightly gingery) grey-brown, wet, unconsolidated, very gritty silty sand with flaky and fibrous organics

Sample 48 (fill Context 667 in stone-lined pit 668, 18<sup>th</sup> century): 1 kg taken from a sample of 1.4 kg of dark brownish-grey moist to wet, plastic to almost unconsolidated gritty sandy silt to silty sand

*Custom House Square (EHS licence AE/07/081):*

Sample 1113 (from Bag 1/6 of Context 111, revealed in machine trench 3, post-medieval, probably land reclamation): 1 kg taken from 1.6 kg of dark brown, moist, unconsolidated angular wood fragments and stones with some large fragments of pale-coloured bone

The subsamples were disaggregated in water and sieved to 0.3 mm following the procedures of Kenward *et al.* (1980). In two cases, paraffin flotation (*ibid.*) was used to extract insect and other invertebrate remains.

## **Results**

*St Anne's Square*

### **Context 47, Sample 7 (1.5 kg)**

The subsample disaggregated easily to give large residue of about 1150 cm<sup>3</sup>, of which a large proportion (about 880 cm<sup>3</sup>) was a 'washover' of less dense material, consisting largely of flaky wood fragments and some small squared wood (probably softwood) fragments, the rest being brick, slate, grit, and sand; occasionally there were 'lumps' of wood fragments

cemented by mortar and some mortar/lime-like material was present on some of the flakes. The fine fraction consisted more or less completely of tiny wood fragments, perhaps sawdust. Closer inspection of some of the wood 'flakes' revealed that they were pine, but perhaps with some other conifer present. A few small (<5 mm) fragments of oak wood were of a dark colour and evidently from a different source. Along with these components, there were very few identifiable plant remains—the sample was dominated by wood flakes and ?sawdust—just traces of heather (*Calluna vulgaris* (L.) Hull) twig fragments and a few grass fruits.

**Context 667 (fill in stone-lined pit 668), Sample 48 (1 kg)**

The subsample disaggregated easily to produce a modest-sized residue of about 375 cm<sup>3</sup>, of which most was brick and grit. The washover was about 175 cm<sup>3</sup> of fine organic debris with a few small fragments of wood including flakes which might have come from wood-working. Preservation of organic material was very good, with some moss shoots still slightly green in colour.

The bulk of the washover consisted of wood fragments (to 35 mm) and a little bark (of more than one type), with quite a wide range of plant represented mainly by fruits and seeds. Some of these may have arrived from plants growing as weeds in the vicinity (e.g. the abundant knotgrass, *Polygonum aviculare* agg.), but most are more likely to have originated in imported straw and hay. Indeed, the 'hay' component included some remains thought typical of this kind of material, especially the stipules (modified leaves) of meadow vetchling (*Lathyrus pratensis* L.) and tendrils which might also be from this plant and which clearly indicate the presence of the *vegetative* parts. This material may have arrived as hay or be from the dung of large herbivores. Traces of linseed (*Linum usitatissimum* L.) seed fragments and seeds of fig (*Ficus carica* L.) and blackberry and raspberry (*Rubus fruticosus* agg. and *R. idaeus* L.) may have originated in domestic waste, but overall there was no very dominant group of plants and the material seems to have accumulated from a variety of sources. There is certainly nothing to suggest that the deposit contained residues from tanning, the small (<30 mm) leather fragments present probably just being another kind of waste used to fill the pit.

The insects from this subsample were well preserved and represented various habitats, including water (common, rapidly invading taxa). There were some ground beetles, a clover weevil (*Sitona*), and synanthropic species (those favoured by artificial environments) suggesting fairly dry to foul rotting matter, perhaps including dung.

*Custom House Square/Waring Street*

**Context 1111, Sample 1113 (1 kg)**

This subsample yielded a huge residue of about 1450 cm<sup>3</sup>, almost all of it comprising organic debris—bark (of more than one kind), wood and peat fragments (to 40 mm)—with abundant cinders. Smaller components comprised bone, herbaceous plant detritus, leather fragments and some small twigs. Only rather a small amount of fine organic material and silt passed the smallest sieve (0.3 mm), and the fine mineral material retained in that sieve was restricted to a little sand (there were also some rare clasts of grey silt or clay to 10 mm).

The identifiable plant remains comprised a wide diversity of taxa mostly preserved by anoxic waterlogging, though none was especially abundant. The more frequent were nutlets of sedges (*Carex*), spikelets or cleistogenes (non-opening spikelets mainly found in the culm-bases) of the heath grass, *Danthonia decumbens* (L.) DC. in Lam. & DC., culm-nodes ('knees') of grasses or cereals, hop (*Humulus lupulus* L.) fruits, flowers of small leguminous plants, nutlets of self-heal (*Prunella vulgaris* L.), frond and stalk fragments of bracken (*Pteridium aquilinum* (L.) Kuhn) and achenes of buttercups (*Ranunculus* Section *Ranunculus*), some of which seem to point to the importation of material in the form of grass turves (or dung from herbivores grazing on short turf), others more consistent with straw and hay from, for example, stable manure. The hops, however, presumably represent waste from some quite other activity—brewing is the most obvious explanation—though the tally of organic materials used in stables as litter might perhaps have included spent hops. Taxa likely to have originated as food waste were walnut (*Juglans regia* L.) and hazelnut (*Corylus avellana* L.), and the component of 'useful' plants also included traces of flax (capsule fragments), uncharred grains of wheat/rye (*Triticum/Secale*), pips and endocarp ('core') of apple (*Malus sylvestris* Miller) and at least one charred grain of oats (*Avena* cf. *sativa* L.). One plant from a very different habitat was the saltmarsh denizen glasswort, *Salicornia*, of which at least two fruits were noted; this plant presumably arrived by natural dispersal from plants in the river estuary if not, for example, with ballast or with hay or herbivore faeces. A single fragment of a leafy shoot of some member of the cypress family (Cupressaceae) probably indicates a component from an ornamental grown in a garden in the vicinity.

For the invertebrates, there were a few fly puparia of two kinds, and a single fragment of a large ground beetle, *Pterostichus* sp. There was nothing to suggest tanning, and indeed all the beetles could be background fauna (though the flies obviously bred in the material or were brought in dumped matter).

Although rich in bark, the material in this deposit—which seems to have been a dump of mixed organic waste, with cinders and peat presumably representing fuel—does not appear to contain waste from tanning: the bark is not accompanied by bark sclereids, nor are there any insect indicators of tanpit residue (cf. Hall and Kenward 2003).

## Discussion

These deposits provided diverse and well preserved plant material and a few well preserved insects (the latter probably diluted by the abundance of the former). There was no very convincing evidence for tanning from the assemblages—no bark sclereids or insects associated with skins (cf. Hall and Kenward in prep.)—though a number of different kinds of organic waste appeared to be present. It is likely that the fills of the barrel and stone-lined pit at St Anne's Square were secondary fills unrelated to any craft or industrial use of these features, and the material at Custom House Sq./Waring St. is consistent with dumping.

## Acknowledgements

The authors are grateful to Lianne Heaney, Northern Archaeological Consultancy Ltd., Belfast, for the opportunity to work on this material and to Prof. Terry O'Connor, Department of Archaeology, University of York, for establishing the initial contact with NAC.

## References

*Reports from the Environmental Archaeology Unit, York* and *Reports from the Centre for Human Palaeoecology, University of York* are available via links at <http://www.york.ac.uk/inst/chumpal/welcome.htm>

Hall, A. and Kenward, H. (2003). Can we identify biological indicator groups for craft, industry and other activities? pp. 114-30 in Murphy, P. and Wiltshire, P. E. J. (eds). *The environmental archaeology of industry. Symposia of the Association for Environmental Archaeology* 20. Oxford: Oxbow.

Hall, A. and Kenward, H. (in prep.) Plant and invertebrate indicators of leather production: from fresh skin to leather offcuts. For Archaeological Leather Group publication.

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.