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**Evaluation of biological remains from two pit fill samples recovered during excavations at the site of the former Pentecostal Church, St Sepulchre Street, Scarborough, North Yorkshire (site code: PC03 – 2003.516)**

by

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**Summary**

*Two sediment samples recovered from medieval pit fills during an excavation at the site of the former Pentecostal Church, St Sepulchre Street, Scarborough, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential.*

*Well-preserved plant and invertebrate material was present in the sample from Context 5015, with rather less well preserved remains (but essentially rather similar) in that from 5016. There was evidence for a mixture of different kinds of litter from heathland/moorland and probably also seaweed. A variety of taxa, including remains from food plants, likely to have been useful to the occupants of the site was present, although numbers were often small.*

*The very well preserved shellfish remains from Context 5015 were mostly of limpet; often dismissed as 'famine food' or fish bait but likely to have had a far more important role as a staple foodstuff of coastal communities in the past.*

*Most of the vertebrate remains recovered were of fish (only a few large-sized mammal bones, some burnt, were present) and all were from the sample from Context 5015. The fish remains were extremely well preserved. Few well dated and systematically recovered fish assemblages have been published from sites in the North East of England outside of the major urban centres. Our understanding of the exploitation of past fish stocks, and the trade/supply relationships between coastal fisheries and urban settlements, would certainly benefit from the recording of further assemblages.*

*Given the scarcity of data for Scarborough, and assuming that adequate archaeological context and dating information is available, the current material deserves further analysis. Any further excavation at this site should certainly be accompanied by systematic sampling for the recovery of floral and faunal assemblages.*

**KEYWORDS:** FORMER PENTECOSTAL CHURCH, ST SEPULCHRE STREET; SCARBOROUGH; NORTH YORKSHIRE; EVALUATION; MEDIEVAL; PLANT REMAINS; CHARRED PLANT REMAINS; INVERTEBRATE REMAINS; SHELLFISH; VERTEBRATE REMAINS; WOOD WORKING

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## Evaluation of biological remains from two pit fill samples recovered during excavations at the site of the former Pentecostal Church, St Sepulchre Street, Scarborough, North Yorkshire (site code: PC03 – 2003.516)

### Introduction

An archaeological excavation was carried out by Scarborough Archaeological and Historical Society at the site of the former Pentecostal Church, St Sepulchre Street, Scarborough, North Yorkshire (NGR TA 04788 88862), in 2003.

The excavation took place on the west side of the church in advance of repairs to the external wall. A series of medieval rubbish pits cut down into the natural clay were located showing good organic preservation. Additionally, a substantial stone wall was revealed that was probably the foundations of a medieval or later house which had been built over the infilled pits.

Two bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) were submitted to Palaeoecology Research Services Limited (PRS), County Durham, for an evaluation of their bioarchaeological potential.

### Methods

The lithologies of the samples were recorded, using a standard *pro forma*, and subsamples were processed, broadly following the procedures of Kenward *et al.* (1980), for the recovery of biological remains.

Plant remains and the general nature of the flots, the washover and the wet residue were recorded briefly by 'scanning', identifiable taxa and other components being listed directly to a PC using *Paradox* software. The residue, of mineral material and the heavier organic fraction, from the sample from Context 5015 was dried and its components recorded.

Insects in the flots were recorded using 'assessment recording' *sensu* Kenward (1992), creating a list of the taxa observed during rapid inspection of the flot, with a semi-quantitative estimate of abundance, and a subjective record of the main ecological (e.g. aquatics, grain pests) or indicator/activity (e.g. for stable manure, Kenward and Hall 1997) groups present. A record of the preservational condition of the remains was made using scales given by Kenward and Large (1998). This scheme provides scales for chemical erosion and fragmentation (0.5-5.5, the higher figure representing the greatest degree of damage), and colour change (0-4), in each case giving a range and a value for the position and strength of the mode (Kenward and Large 1998, tables 2, 3 and 5-7).

### Results

The results are presented in context number order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers. Sample numbers were derived from the context numbers for PRS internal recording keeping purposes.

#### Context 5015 [medieval pit fill]

Sample 501501/T (3 kg sieved to 300 microns with paraffin flotation and washover; approximately 13 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown, brittle to crumbly (working soft), slightly sandy silt, with some fine herbaceous detritus and small lumps (to 25 mm) of light grey-brown slightly silty clay. Stones (20 to 60 mm), twigs and bone were present.

The large flot and moderate-sized washover of about 600 ml between them yielded an abundance of well

preserved fruits and seeds. Much of the matrix material seen in the washover consisted of woody and herbaceous detritus with a 'twiggy' and 'strawy' character, though fragments in neither category was very large (usually less than 10 mm). There was a considerable quantity of peat fragments and a number of remains likely to have arrived with peat or from peatland vegetation, notably traces of heather (*Calluna vulgaris* (L.) Hull) flowers, twigs and shoots, leaves and seeds of bell heather (*Erica cinerea* L.), and a single fruit of bog myrtle (*Myrica gale* L.). These are all likely to have been growing on moorland inland of Scarborough. Other 'litter' in the assemblage included bracken (*Pteridium aquilinum* (L.) Kuhn), of which both fronds and stalk fragments were rather frequent, cereal straw (evidenced by seeds of cornfield weeds such as corncockle, *Agrostemma githago* L. and corn marigold, *Chrysanthemum segetum* L.) as well as grass/cereal straw debris, and probably also hay or other cut grassland vegetation (represented for example by *Leontodon* and some other taxa). Domestic waste may be reflected in the presence of traces of hazel (*Corylus avellana* L.) nutshell and fragments of linseed (*Linum usitatissimum* L.) and 'plum' (*Prunus domestica* ssp. *domestica* (L.) C. K. Schneider and in traces of charred cereals—wheat (*Triticum*) and perhaps also barley (*Hordeum*), though the grains were poorly preserved. Some of the pale, firm, and very well preserved wood fragments were certainly chips from working.

The flot was substantial, consisting primarily of wood fragments. Although the concentration of invertebrate remains was rather low, a useful assemblage of insects was recorded, with some notable features. Preservation was good, but some remains were quite strongly fragmented (E 1.5-2.5, mode 1.5 weak; F 1.5-3.5, mode 2.5 weak). The insect assemblage was ecologically mixed, with the only species represented by more than a single individual perhaps suggesting a building: fairly dry decaying matter, such as thatch, hay or litter on a floor (*Lathridius minutus* group), and dead wood (*Anobium punctatum* (Degeer)). Many of the rarer species may have co-existed with the first of these in rotting matter of variable water content. There were traces of species from fouler organic matter or dung, others from herbaceous vegetation, some from waterside or emergent vegetation, one (*Ulopa reticulata* (Fabricius)) from moor or heath (consistent with the evidence from plant remains), and one from salt-soaked rotting matter such as stranded wrack (*Cercyon depressus* Stephens or *littoralis* (Gyllenhal)), perhaps not too surprising from a site so near the shore. Finally, there were body segments from a flea, and remains which were probably of the honey bee, *Apis mellifera* Linnaeus. This material has potential for archaeological interpretation given appropriate dating and context data; a larger or additional subsample would be needed.

The rather small residue (dry weight 0.45 kg) was mostly of fine charred and uncharred plant material (largely charcoal and small wood fragments), sand and stones (to 70 mm). A range of organic remains was present including wood (10 g to 50 mm, including wood 'chips'), fragments of twig/root, larger pieces of charcoal (3g, to 12 mm), further hazel nutshell (2 g), a charred grain (unidentified), several fly puparia, limpets (25 g, all common limpet – *Patella vulgata* L.), wrinkle (*Littorina littorea* (L.)) and bone.

Over 200 fragments of bone (90 g) were recovered from this sample, all of which were extremely well preserved. Most were fish bone and included the remains of gadid, some more closely identified as cod (*Gadus morhua* L.), ling (*Molva molva* (L.)), and haddock (*Melanogrammus aeglefinus* (L.)). Some of the gadid vertebrae had been chopped. Mostly these represented large individuals, probably greater than one metre in overall length. Additionally, thornback ray (*Raja clavata* (L.)), herring (*Clupea harengus* L.) and eel (*Anguilla anguilla* (L.)) were also present within the assemblage. Mammal remains were scarce; some were burnt and most were from large-sized mammals (assumed to be cow, horse or large deer).

Three small pot fragments (10 g, to 45 mm) were also recovered.

#### **Context 5016** [medieval pit fill]

Sample 501601/T (3 kg sieved to 300 microns with paraffin flotation; approximately 15 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown, brittle to crumbly (working soft), humic silt, with small patches of light yellow-grey-brown to light grey silty clay (to 30 mm) and occasional lumps of indurated pale grey clay (to 8 mm).

Something of the same range of plant material as in Context 5015 was observed in the moderate-sized flot and residue, the latter of about 500 ml of which about 50 ml comprised sand, grit and gravel, the rest being granular organic detritus including wood and peat. Preservation was rather less good with most material showing some erosion and/or oxidation. This was, if anything, a similar deposit to that represented by Context 5015 but with stronger decay prior to the remains being sealed in the ground.

The flot, of modest size, was mainly wood fragments. Insect remains were fairly abundant, though ecologically mixed. Mites were quite abundant. Preservation was fair (E 2.0-3.0, mode 2.5 weak; F 2.5-3.0, mode 2.5 weak). There was evidence of water from remains such as a resting body of the bryozoan *Lophopus crystallinus* (Pallas), a fragment of caddis fly

larval case, and the beetles *Chaetarthria seminulum* (Herbst), *Helophorus* sp. and *Ochthebius* sp. Local decomposing matter was indicated by a range of species, though only *Micropeplus fulvus* Erichson, *Anotylus nitidulus* (Gravenhorst) and *Lathridius minutus* group were represented by more than single individuals. Plant-feeders were present in modest numbers, though with mixed origins, some perhaps from local weeds (e.g. *Ceutorhynchus ?contractus* (Marsham)), and others (e.g. *Strophosomus ?sus* Stephens) from moorland or heath. Analysis of remains from a larger or additional subsample would probably be informative.

## Discussion and statement of potential

Well-preserved plant and invertebrate material was present in the sample from Context 5015, with rather less well preserved remains (but essentially rather similar) in that from 5016. There was evidence for a mixture of different kinds of litter from heathland/moorland (including peat) and probably also seaweed (presumably from the shore nearby). A variety of taxa, including remains from food plants, likely to have been useful to the occupants of the site—or at least those people whose rubbish these deposits represent—was present, although numbers were often small.

The very well preserved shellfish remains from Context 5015 were mostly of limpet. These have often been dismissed as ‘famine food’ or fish bait, but Wickham-Jones (2003) has quoted several sources indicating that in the past (certainly from the late 17<sup>th</sup> century to modern times) they have had a far more important role as a staple foodstuff of coastal communities.

The fish remains from this site are extremely well preserved, and although the assemblage is not large it does show the potential of certain deposits at this site for the recovery of bone, fish in particular. Few well dated and systematically recovered fish assemblages have been published from sites in the North East of England outside of the major urban centres. Neither the exploitation of past fish stocks, nor the trade/supply relationships between coastal fisheries and urban

settlements, are well understood and we would certainly benefit from the recording of further assemblages.

## Recommendations

Given the scarcity of data for Scarborough, and assuming that adequate archaeological context and dating information is available, this material deserves further analysis for insect remains, both to enhance site reconstruction and to provide data for future synthesis. A proper record of the plant and vertebrate remains from a larger subsample from 5015 would also be worthwhile to provide complementary information and to explore further the nature of resource utilisation.

Any further excavation at this site should certainly be accompanied by systematic sampling for the recovery of floral and faunal assemblages.

## Retention and disposal

All of the current material should be retained for the present.

## Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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