

**Insect and parasite egg remains from two sites on the
M57 Merseyside Link Road - Brook House Farm (BHF34)
and Ochre Brook (OB35)**

by Harry Kenward and Frances Large

Selected samples of sediment ('GBAs' *sensu* Dobney *et al.* 1992) from two sites on the M57 Merseyside Link Road - Brook House Farm (BHF34) and Ochre Brook (OB35) - were supplied to the Environmental Archaeology Unit, York (EAU) by Liverpool Museum for a review of their content of arthropod (especially insect) and nematode parasite egg remains. Twenty samples from Brook House Farm and five from Ochre Brook were submitted. Following an initial examination of the samples (at which time a sediment description was made), all twenty from Brook House Farm and three of the five from Ochre Brook were processed for arthropod remains. Only three of the samples, all from Brook House Farm, were considered to deserve analysis for eggs of parasitic nematodes.

Analysis for eggs of parasitic nematodes as carried out using the 'squash' method of Dainton (1992). Other microfossils (e.g. phytoliths, diatoms, pollen and fungal spores) were also noted if present. Insects and other arthropods were assessed using test subsamples of 1 kg, following methods of Kenward *et al.* (1980) as modified by Kenward *et al.* (1986). The flots and washovers were examined for their content of arthropod remains, especially insects, a note being made of the principal species or communities present and of their preservational condition ('assessment recording' *sensu* Kenward 1992). Funding was not available for full analysis of the assemblages.

The samples examined for parasite eggs contained none. This is not surprising in

view of the nature of the insect assemblages from them, for (where there was any evidence) the deposits appear to have been primarily naturally formed. Most of the samples from Brook House Farm and all of those from Ochre Brook contained either no macro-invertebrate remains or very few, those present being of no interpretative value.

One of the samples - from Context 57 - taken from Section 1, the shallow southern section, in the internal enclosure ditch Brook House Farm (BHF34) gave evidence of aquatic deposition from very large numbers of water flea (*Daphnia*) resting eggs (ephippia), but insect remains were not abundant. The other (from Context 53) contained only well-decayed fossils of no archaeological value. Three of the four samples (from Contexts 185, 186 and 215) from the deeper northern section (Section 2) also gave large or very large numbers of *Daphnia*, but also contained substantial, ecologically varied, insect assemblages. These would give valuable information about conditions in the ditches, and in their surroundings, as deposition took place, were detailed analysis undertaken. However, some rather subjective observations can be made on the basis of the rapid inspection. A mixture of aquatic and terrestrial species was present, the former not out of place in a still but fairly unpolluted body of water. Although there may have been short vegetation such as areas used for grazing, the impression was of natural or semi-natural vegetation. Otherwise there was no clear evidence of human activity or occupation from the insects; truly human-

associated (strongly synanthropic) species were apparently absent, and forms favoured by human occupation rare. This is something which ideally would have been investigated through fuller analyses. It is not at all clear whether this effective absence of synanthropes reflects the absence of structures (and of artificial accumulations of decaying matter) in the surroundings, or the low probability of such insects becoming incorporated in the fills of ditches at some remove (Kenward *et al.* 1996, 8-9; Kenward in press).

The remaining sample from this section was effectively barren. Samples from the East-West ditch (Contexts 112, 114) contained only very resistant remains and there appeared to have been differential preservation consequent upon oxidation in the ground; the beetles which *had* survived (mostly weevils) were typical of the last remnants in oxidised deposits.

Sample material and paper and electronic archives from this study are currently retained at the EAU.

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