

APPENDIX 1 - MACROSCOPIC PLANT REMAINS

1.1 Assessment of Charred Plant Remains

by Ruth Pelling

Introduction

- 1.1.1 Samples were recovered for charred plant remains and charcoal during excavation works at West of Blind Lane. Despite the evaluation suggesting the environmental potential of the site was poor, small number of representative samples were recovered from a range of features for comparative purposes. Eight samples were taken in total from a middle-late Bronze Age ditch, two late Iron Age-Roman ditches, a late Iron Age post hole and a layer in the southern part of the site where a number of features other than ditches are concentrated.
- 1.1.2 The samples were taken in accordance with the Landscape Zone Priorities and Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The aim of taking the samples was to elucidate the function and economic basis of the site.

Methodology

- 1.1.3 Samples were taken from a representative range of feature type and period. In total 8 samples were taken for the recovery of charred plant remains. The volume of deposit processed for each sample ranged from 7 to 40 litres. Samples were processed by bulk water flotation using a modified Siraf machine, and the flots collected onto 250 µm mesh sieves. Flots were air dried slowly before being submitted for assessment. Six samples produced flots and were submitted for assessment. Each flot was first put through a stack of sieves (2 mm, 1 mm and 500 µm) in order to break them into manageable fractions. Each fraction was then scanned under a binocular microscope at magnification of x10. Any charred seeds and chaff were provisionally identified and an estimate of abundance was made. Fragments of charcoal were randomly fractured and examined in transverse section at x10 and x20 magnification.

Quantification

- 1.1.4 A total of 6 samples were assessed. A summary of the assessment results are shown in Table 7.1 below. Flots were generally quite small and contained frequent rootlets and modern moss. Charred seeds and chaff were noted in three samples, in each case in low numbers (less than ten items). Cereal grain was noted in two samples and included *Hordeum vulgare* (barley), while a *Triticum spelta* (spelt wheat) glume base was noted in another sample. A single weed seed was noted. In addition one *Vicia/Pisum* sp. (vetch/pea) pulse was recorded. Charcoal was noted in all samples, but generally in low quantities of poorly preserved indeterminate taxa. More abundant quantities of *Quercus* sp. (oak) charcoal were noted in two samples.

Provenance

- 1.1.5 The occasional cereal and pulse remains were recorded from two late Iron Age-Roman ditch samples and a sample of disturbed natural or eroded deposit in which a scatter of slag, perhaps derived from marling, was recorded. Small quantities of slag or clinker were also noted in this sample. The remains are likely to represent no more than background scatters of cereal processing debris present in the deposits

across the site. There is unlikely to be any significant association with feature type. The presence of cereal remains does suggest some cereal consumption occurred on the site, although there is no evidence of significant cereal production or processing.

Conservation

- 1.1.6 The flots are in a stable state and can be archived for long term storage.

Comparative Material

- 1.1.7 Few deposits of middle-late Bronze Age date have been examined from the CTRL. Recently material of middle Bronze Age date has been examined from a site at Dartford (Pelling unpubd) which produced a large deposit of cereal grain and chaff, and included both emmer and spelt wheat. Evidence for large-scale cereal production from this period is therefore known from within the Kent region and is also known from outside it, for example from Black Patch, East Sussex (Hinton 1982). The evidence now suggests this is a period of agricultural change in which spelt wheat was replacing emmer wheat, possibly quite rapidly.
- 1.1.8 Evidence for the late Iron Age and early Roman period is more prominent within the region of the CTRL. There is evidence of cereal production and crop processing from some sites, for example the East of Station Road site and Eyhorne Street, which also produced early Iron Age deposits. Cereal remains suggestive of small scale production and processing were also present, for example, at South of Snarkhurst Wood and Hockers Lane. Evidence across southern Britain (eg from the Danebury Environs region, Campbell 2000; Greig 1991) indicates intensive cereal production was occurring in many, although not all areas and that barley and spelt wheat were the prominent cereal crops of the period, although emmer wheat is also recorded from some sites.

Potential for Further Work

- 1.1.9 The samples offer only limited potential for examining aspects of the economic activities at the site in any more detail. The absence of significant seeds or chaff is such that no further work is recommended. Nevertheless the general absence of evidence for large-scale cereal production is important and should be considered in any overview.

Bibliography

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Table 7.1: Summary of charred plant remains

Sample details					Flot details						
Sample	Context	Feature Type	Period	Sample size (l)	Flot size (ml)	Grain	Chaff	Weed seeds	Other	Charcoal	Comments
2001	2131	Natural layer 2131	?	40	30	+	-	+	-	++	Clinker?
2002	2063	Ditch 3007	LIA	35	5	+	-	-	-	+	Roots/moss
2003	2136	Ditch 3006	M-LBA	32	5	-	-	-	-	+	Roots/moss
2004	2053	Ditch 3006	M-LBA	40	10	-	-	-	-	+	Roots/moss
2005	2125	Ditch 3008	LIA-RO	40	10	-	+	-	+	+	Roots/moss
2006	2128	Post-hole 2130	LIA	7	60	-	-	-	-	+++	