Channel Tunnel Rail Link

London and Continental Railways

Oxford Wessex Archaeology Joint Venture

The charred plant remains from Tutt Hill, Westwell, Kent (ARC 430 83+800-84+900 99)

by John Giorgi

CTRL Specialist Report Series

2006

TABLE OF CONTENTS

1 INTRODUCTION 3

2 METHODS 3

3 RESULTS 3

3.1 Late Neolithic/early Bronze Age 4
3.2 Middle Bronze Age 4

4 DISCUSSION 4

5 BIBLIOGRAPHY 5

LIST OF TABLES

Table 1: The charred plant remains from Tutt Hill (late Neolithic to Bronze Age) 3

1 INTRODUCTION

A total of 40 environmental bulk soil samples were collected during excavations at ARC-430 (Tutt Hill) from the fills of late Neolithic-early Bronze Age features including ring ditches, late Bronze Age ditches, and pits and cremation pits of varying dates.

2 METHODS

The samples were processed by flotation for the recovery of charred plant remains with the flots being retained on a 0.25mm mesh. Twenty-five samples produced flots, which were assessed for the presence of botanical remains (Pelling 2001). On the basis of the assessment, four samples were selected for the analysis of the charred plant remains from the fills [79], [86], of two late Neolithic to early Bronze Age ring ditches [81] and [91], and from the fills [118] and [219] of two middle Bronze Age pits [117] and [217]. The plant remains were identified, quantified, and recorded on the MoLAS ORACLE database.

3 RESULTS

The plant remains are listed by sample in Table 1. Only a very small quantity of identifiable charred plant remains was recovered from the four samples with a total of just 13 quantified items (eight cereal grains, one leguminous seed and several indeterminate seeds), plus a few fragments of charred hazel (Corylus avellana) nutshell and very fragmented charcoal. The discussion of the results is by period.

Table 1: The charred plant remains from Tutt Hill (late Neolithic to Bronze Age)

	Period	**LN-EBA**	**LN-EBA**	**MBA**	**MBA**
	Feature	**D81**	**D90**	**P117**	**P217**
	Context	**79**	**86**	**118**	**219**
	sample	**20**	**15**	**26**	**37**
	Vol. of processed soil (litres)	**36**	**40**	**35**	**24**
LATIN_NAME	**ENGLISH**				
Hordeum vulgare L.	six-row hulled barley	2			
cf. *Hordeum* sp.	?barley		1		
Hordeum/Triticum sp.	barley or wheat			1	
Cerealia	Indet. cereal	2			
cf. Cerealia	?Indet. cereal				2
Fabaceae indet.	-			1	
Corylus avellana L.	hazel nut shell				+
indeterminate	-		2		2
indeterminate	charcoal	++	++	++	++

Key: LN-EBA = late Neolithic to Early Bronze Age; MBA = Middle Bronze Age
D = Ring ditch fill; P = pit fill + = 1-10 items; ++ = 11-50 items

3.1 Late Neolithic/early Bronze Age

The two samples from the fill [79] of ring ditch [81], and fill [86] of ring ditch [90], produced just three barley grains, with two in fill [79] identified as six-row hulled barley (*Hordeum vulgare*). Two other grains in fill [79] and two items in fill [86] could not be identified. Both samples contained very small amounts of fragmented charcoal. This material probably represents re-deposited background scatters of cereal waste blowing across the site.

3.2 Middle Bronze Age

The charred plant remains in these samples consisted of a barley or wheat (*Hordeum/Triticum* sp.) grain and one indeterminate legume seed in fill [118] (Pit [117]), with two possible cereal grains, two indeterminate items and a few charred hazel nut fragments in fill [219] (Pit [217]). Both pit fills contained very small amounts of very fragmented charcoal. Again, these remains probably derive from plant material blowing across the site.

4 DISCUSSION

Little comment on the crop husbandry can be made on the basis of the small plant assemblages from these four samples other than that six-row hulled barley was being cultivated in this area during the late Neolithic and Bronze Age periods. Assessment data also showed the presence of a few barley grains in several deposits of a similar date plus a single hulled wheat grain in a late Bronze Age ditch fill [196]. Only a sample from a late Iron Age pit fill [36] at the site produced a larger number of grains (between 11 and 50) of six-row hulled barley and oat (*Avena* sp.) (Pelling 2001). Hazel nutshell, which was found at the site, is frequently recovered from late Neolithic and early Bronze Age sites in England (Moffet *et al* 1989).

Archaeobotanical evidence for cereal cultivation from the late Neolithic to middle Bronze Age periods in Kent is limited, although from other CTRL sites in the area, a Middle Bronze Age sample from White Horse Stone produced several hundred hulled barley grains (Giorgi 2006), while small amounts of grain of barley and spelt (*Triticum spelta*) were recorded from middle to late Bronze Age deposits at West of Blind Lane (Pelling 2001). Six grains of barley were also identified in four late Neolithic to early Bronze Age samples from Eyhorne Street (Davis 2006).

5 BIBLIOGRAPHY

ADS, 2006 CTRL digital archive, Archaeology Data Service, http://ads.ahds.ac.uk/catalogue/projArch/ctrl

Davis, A, 2006 The charred plant remains from Eyhorne Street, *Specialist Archive Report,* in ADS 2006

Giorgi, J, 2006 The Charred Plant Remains from White Horse Stone, *Specialist Archive Report,* in ADS 2006

Moffet, L, Robinson, M A, and Straker, V, 1989 Cereals, fruits and nuts: charred plant remains from Neolithic sites in England and Wales and the Neolithic economy, in *The beginnings of agriculture* (eds A Milles, D Williams and N Gardener), BAR Int Ser **496**, 243-61

Pelling, R, 2001 Appendix 7: Assessment of the Charred Plant Remains, in URS, Tutt Hill, Westwell, Kent (ARC 430/83+800-84+900/99): Detailed archaeological works assessment report, unpubl. report prepared by OAU for Union Railways (South) Limited, in ADS 2006