

**Channel Tunnel Rail Link  
London and Continental Railways  
Oxford Wessex Archaeology Joint Venture**

**The charred plant remains from Whitehill Road  
(Zones 1 and 2), Southfleet, Kent**

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## 1 INTRODUCTION

A total of 50 environmental bulk soil samples were collected during excavations at ARC-SSR99 (South of Station Road), ARC-STP99 (Temple East of Springhead) and the watching brief at ARC-330 98 (New Barn Road). Twenty-three of these samples were from ARC-SSR 99, from mainly oven and ditch fills, which were dated to the Roman period. Another 23 samples were collected from ARC-STP 99, from fills taken from a range of features (pits, post-holes, gully), a few of which were tentatively dated to the late Neolithic/early Bronze Age; many of these sampled features, however, could not be dated. The remaining four samples, from ARC-330 98, were from four undated ditch fills.

## 2 METHODS

The samples were processed by flotation with flots retained on a 0.25mm mesh and residues on a 1mm mesh and assessment of the plant remains carried out by the Museum of London Specialist Services (Gray 2001). On the basis of the assessment, botanical remains in 12 samples from ARC-SSR99 and ARC-STP99 were recommended for analysis (the four ditch fill samples from ARC-330 98 produced only charcoal). These remains were identified, quantified, and recorded on the MoLAS ORACLE database.

## 3 RESULTS

### 3.1 Preservation and range of material present

Very small quantities of identifiable charred plant remains, totalling just under 100 items, were recovered from the 12 samples, although preservation of the material was not particularly good. The botanical remains consisted virtually entirely of cereal grains, which were present in low numbers in four samples from ARC-STP 99, from the fills of a post-hole, layer, tree-throw and pit, all tentatively dated to the late Neolithic/early Bronze Age. Relatively larger amounts of grain were identified in eight samples from ARC-SSR 99, from the early Roman oven fills (Group 40104).

All the charred plant remains were recovered from sorted residues with the exception of one flot from oven fill [35] which contained a small number of grains, chaff and weed seeds. This flot, however, could not be located and therefore a discussion of these plant remains is based on the results recorded at the assessment stage. The plant taxa identified from ARC-SSR 99 and ARC-STP 99 are listed by sample in Tables 1 and 2 respectively.

Table 1: The charred plant remains from South of Station Road (ARC SSR99)

period:	ERO	ERO	ERO	ERO	ERO	ERO	ERO	ERO	UN
group:	40104	40104	40104	40104	40104	40104	40104	40104	40112
subgroup:	114	114	115	115	115	115	115	115	109
type:	OV	OV	OV	OV	OV	OV	OV	OV	PIT
context no:	35	35	49	60	60	62	63	65	31
sample no:	7	7	17	16	19	20	21	23	8
	F	R	R	R	R	R	R	R	R
vol. flot (ml)	5	-	-	-	-	-	-	-	-
sample size (litres):	3	3	10	3	10	10	3	6	10
latin name	common name								
<b>Cereal grain</b>									
<i>Triticum</i> cf. <i>spelta</i>	?spelt								
<i>T. dicoccum/spelta</i>	emmer/spelt								
<i>Triticum</i> sp(p).	wheat	*	1	1	2				2
cf. <i>Triticum</i> sp(p).	?wheat				3			1	3
<i>Hordeum vulgare</i> L.	hulled barley								
cf. <i>Hordeum</i> spp.	?barley								
Cerealia	indet. cereal								
<b>total grain</b>		9	1	29	12	10	1	4	24
<b>Cereal chaff</b>									
<i>Triticum</i> spp.	wheat glume bases	*							
<b>Other plants</b>									
<i>Vicia/Lathyrus/Pisum</i> sp.	vetch/tare/vetchling/pea								
<i>Silene</i> sp.	campion								
cf. <i>Plantago</i> sp.	?plantain								
<b>total other plants</b>									
<b>total items</b>	-	9	1	29	12	10	1	4	25

Key: Period: ERO = early Roman; UN = unknown; Features: OV = oven fill; PIT = pit fill; F = charred plant remains from flot; R = charred plant remains from residue; \* = 1-10 items (based on assessment data only)

Table 2: The charred plant remains from Temple East of Springhead (ARC STP99)

period:	?LNE/EBA	?LNE/EBA	?LNE/EBA	?LNE/EBA
group:	40118	40122	40123	40123
subgroup:	23	18	32	4
type:	PH	LAYER	TR-TH	PIT
context no:	63	36	45	6
sample no:	15	4	10	2
vol. Flot (ml)	10	-	-	-
sample size (litres):	5	10	10	5
latin name	common name			
<b>Cereal grain</b>				
<i>Triticum</i> sp.	wheat			
cf. <i>Triticum</i> sp.	?wheat			
Cerealia	indet. cereal			
<b>total grain</b>		3	1	3
<b>Wild plants</b>				
<i>Galium</i> sp.	bedstraw			
<b>total wild plants</b>	1			
<b>total items</b>	1	3	1	3

Key: Period: ?LNE/EBA = ?late Neolithic/early Bronze Age; Feature: PH = post-hole fill; LAYER = layer; TR-TH = tree-throw; PIT = pit fill

### 3.2 A description of the results by period.

#### 3.2.1 *?Late Neolithic/early Bronze Age*

These samples were all from ARC-STP99. Four samples, from a post-hole fill [63] (group 40118), layer [36] (group 40122), pit fill [6] and tree-throw [45] (group 40123), contained just seven cereal grains, of which two grains from layer [36] were identified as wheat (*Triticum* sp.) while the remaining grains were not identifiable. A single charred weed seed of bedstraw (*Galium* sp.) was recovered from the sampled post-hole fill [63].

#### 3.2.2 *Early Roman Oven*

Seven samples were collected from six fills ([35], [49], [60], [62], [63], [65]) (group 40104) of an early Roman oven from ARC-SSR99 and produced a total of 66 grains including 11 wheat grains with a tentative identification of a single grain of the hulled wheat, spelt (*Triticum* cf. *spelta*) and two emmer/spelt wheat (*T. dicoccum/spelta*) grains. There were also several barley grains, with both hulled and twisted grains showing the presence of six-row hulled barley (*Hordeum vulgare*).

The assessment data on a small charred cereal assemblage in the flot from oven fill [35] recorded the presence of a small number of poorly preserved wheat grains, wheat glume bases and charred weed seeds, eg. campion (*Silene* sp.) and possibly plantain (cf. *Plantago* sp.).

#### 3.2.3 *Undated pit fill*

A sampled pit fill [31] (group 40112) from ARC-SSR99, which could not be dated, produced a small assemblage of cereal grains including wheat and barley and one leguminous seed identified as vetch/tare/vetchling/pea (*Vicia/Lathyrus/Pisum* sp.).

## 4 CONCLUSIONS

Little comment can be made on the basis of these small cereal assemblages other than on the range of cereals being cultivated and used during these periods. The presence of wheat in late Neolithic/early Bronze Age deposits is not unusual while the hulled wheats, emmer and spelt, and hulled barley, have been recovered from other Romano-British sites (Greig 1991) including a number within the CTRL project.

The cereal remains from these sites probably represent scattered detritus from accidental burning during the final stages of crop processing or food preparation. The early Roman oven may have been used to dry the cereals before storage, to facilitate de-husking of the hulled grains, or for hardening the grain before milling. The presence of a small quantity of chaff fragments and weed seeds in the oven are indicative of crop-processing residues, which may then have been used as tinder/fuel for this feature.

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