

Ancient Monuments Laboratory Report 60/92

STANSTED AIRPORT CAR PARK I (CIS 90), ESSEX : CARBONISED PLANT REMAINS FROM LATE BRONZE AGE AND EARLY/ MIDDLE IRON AGE CONTEXTS

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Summary

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This E/MIA enclosure, (with one Late Bronze Age pit) was one of a series of later prehistoric and Roman settlements excavated in advance of the construction of the new Stansted terminal. Samples produced low densities of cereal remains (*T. spelta*, *T. cf. dicoccum*, *Hordeum* sp), sparse weed seeds and some rosaceous fruits and hazel nutshells. In common with other prehistoric settlements on the Boulder Clay of this area there is no evidence for large-scale crop processing. The material present could indicate small-scale domestic processing of batches of cereals obtained by exchange with sites on lighter soils. Not until the Roman period at Stansted is there evidence implying large-scale arable farming on the Boulder Clay.

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<u>Introduction</u>

The early-middle Iron Age enclosure at Stansted Airport, Car Park I (CIS 90) was one of a series of prehistoric enclosures on the Boulder Clay of N W Essex, excavated under the direction of Howard Brooks for Essex County Council Archaeology Section. The excavations in 1990 revealed part of a rectilinear ditched enclosure with internal features including part of a round-house gully, pits, post-holes etc. 30 samples were collected from the enclosure ditch and internal features.

<u>Methods</u>

The heavy clay matrix of the deposits in archaeological features in the Stansted area poses problems of disaggregation. As at other sites of this project the air-dried samples were initially pre-soaked in Calgon solution, followed by manual flotation/wetsieving using 0.5 mm meshes. After drying, the residues were reprocessed in the laboratory to break down remaining soil aggregates and complete the extraction by manual flotation of a charred plant material. Because of disaggregation problems sample size had to be limited, but in most cases was about 10 litres. The dried flots and residues were sorted under a binocular microscope at low power. Charred remains of cereals, weed seeds etc from the samples are listed in Table 1.

Results

A single pit, F13 (Samples 3,6 and 7), pre-dated the enclosure and on ceramic evidence is thought to be of Late Bronze Age date. It produced a small quantity of cereal remains, including indeterminate wheat grains, spikelet fragments of <u>Triticum spelta</u> and <u>Triticum cf. dicoccum</u>, an indeterminate barley grain (<u>Hordeum</u> sp) and a restricted weed flora including cf <u>Silene</u> sp, <u>Chenopodium album</u>, <u>Vicia/Lathyrus</u> sp and an indeterminate Gramineae fruit.

The remaining early-middle Iron Age features contained similarly low densities of cereal grains and chaff, including <u>T</u>. <u>spelta</u> and <u>Hordeum</u> sp., some charred remains of rosaceous fruits (cf.<u>Rosa</u> sp., <u>Prunus spinosa</u>), hazel nutshell fragments (<u>Corylus avellana</u>) and a sparse weed flora.

<u>Discussion</u>

Excavations prior to 1990 at Late Bronze Age to Roman sites at Stansted, (Sites SCS 87, ACS 86, BLS 87 and DFS 87), provided an opportunity to obtain assemblages of charred plant remains and thereby to assess changes in arable farming on the Boulder Clay of this area (Murphy 1990). The general pattern to emerge was that Late Bronze Age/Early Iron Age sites produced very low densities of crop plant remains, slightly higher densities were noted at the Late Iron Age/Early Roman enclosure ACS 86, and variable but in some cases very high densities of cereal remains, notably of spelt chaff, were found at the Roman sites BLS 87 and DFS 87. It was noted that Anthemis cotula, a characteristic arable weed of clay soils was present only in the Roman samples, and was frequent only at DFS 87. These results gave no grounds for thinking that there was any intensive crop processing at the prehistoric sites on heavy soils and it was inferred that their economies were not primarily focused on arable production.

Probably cereals were obtained by exchange with sites on soils at the margins of the till plateau, better suited to crop production. Only at the Roman site DFS 87, on loamy soils over clay, were there good grounds for suggesting a primarily arable economy.

The results from Stansted Car Park I clearly fit well with this model. In both the Late Bronze Age and Early/Middle Iron Age contexts cereal and weed seed remains were sparse. Certainly there is no evidence for large-scale crop processing; the scatters of material could well merely relate to small-scale domestic processing of batches of semi-cleaned cereals imported from sites located on soils better suited to crop production.

The crops identified at CIS were <u>Triticum spelta</u>, <u>Triticum</u> cf <u>dicoccum</u> and <u>Hordeum</u> sp. The record of spelt provides further evidence for the cultivation of this crop on clay soils in the Late Bronze Age; it was also present in an LBA context at site SCS 87.

<u>Reference</u>

Murphy, P. (1990) <u>Stansted Airport, Essex : Carbonised plant</u> <u>remains</u>. Ancient Monuments Laboratory Report129/90.

Sample No	1	2	3	4	5	6	8	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	29
Context no	2	8	15	18	28	30	43	52	53	62	67	69	71	74	77	81	83	85	86	90	112	116	121	148
Feature-type	ΈD	P	P	RH	с	P	Р	ст	ст	Р	P	Р	G	G	Р	G	P	Р	Р	Ρ	P	р	СТ	P
Cereal indet ca.fr.	+	+	+	+	+	+	-	-	-	4	-	-	+	-	-	-	-	-	+	+	+	*	-	+
Cereal indet ca.	-	-	з	-		4	1	-	-	-	1	-		-	1	1	-	2	-	1	9	-	-	-
Triticum sp(p) ca.	-	-	7	-	-	2	-	-	1	-	-	-	2	-	-	-	-	-	-	-	1	fr	1	-
<u>Triticum</u> sp(p) gb	3fr	1	2	_	-			-	-	-	<u> </u>	-	1	-	1	2	-	-	-	-	-	fr	-	-
<u>Triticum</u> sp(p) spb	-	-	1	-	2fr	1		-	-	-	-	-		-	-	1	-	-	-	-	-		-	-
<u>Triticum sp(p) ri</u>	-	_	_			-	-	-	-	1	-	-			-		-	-	-	-		_	-	-
Triticum of. <u>dicoccum</u> Schubl apb	-	_		_		1	-	-	<u> -</u>		-	-				-	<u> </u>	-	<u> </u>	-	-	-	-	-
Triticum spelta L gb	-			-	-	-	-	-	-	-	-	-	-	-		з	-	-	1	-	-		-	-
Initicum spalta L spb		-	1	-			-	-	<u> -</u>		-	1cf		-	-	-		-	<u> </u>		-	-	-	lcf
Triticum spelta L ri	-	-	_	_	-	+	-	-	1	-	-		1cf		-		-	:		-	-	-	-	-
Hordeum sp(p) ca.	-	-	1	2fr	-	~	1	1	-	-	-	-		-	-	1	1	+	~	-	3	-		-
Papaver sp	-	-		-	-	-			-	-	-	-	-	-	-	-	-	-			_	3		-
cf. <u>Silene</u> sp	-	-	fr		-	-		-	-	-	-	-	-	-	-	-	-	-	-		-	-		-
Montia fontana L. subsp.chondrosperma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Chenopodium album L	-	-	-			1	-	-	-	_	-	-	-	-	-	-	2	-	-	_	_	fr	-	-
Chenopodiaceae indet	-	-	2	-	1fr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Vicia/Lathyrus</u> sp.	100		1		co.fr	-	-	-	-	+	-	-	+	-	-	-	-	-	co. fr	-	co. fr	2ca	-	-
Leguminosae indet	<u> -</u>	-	-	-					-	1co	-	-			-	-	-	-	-	-	-	-	-	-
cf. Rosa sp	-			~	-	-	-	-	-	-	-	-	-	fr	_	~	-	-	-	-	-	-		-
Prunus spinosa L	-	fr	-		-	-		-	-	-	-	-	-	-	_	-	-	+		-	-	-	-	-
Umbelliferae indet	-	-	-	_	-		-	1	_	-	-		-	-	-	-	-	-	-	_	_	-	-	-
Rumex sp(p)	-	1	-	-	-	-	-	-	-	-	-		+	-	-	+	1	-	-	-	-	*	-	-
Corvius avellana L	-	-		-	fr	-	+		-	fr	-	-	-	-	fr	+	-	-	-	-	-	-		<u> </u>
Sherardia arvensia L	-	-	-	icf	-	-	-	-	-	-	-	-			-	-	1	+	-	-	-	1	<u> </u>	-
<u>Galium aparine</u> L	-	-	-	1	-	-	-	1	1	*	-	-	-	-	-	-	-	-	-	1+ fг	-	-	-	-
<u>Galium</u> sp	-	-	-	-	-	-		-	-	#	-	-	-	-	-	-	-	-	-	-	4	-	-	1
Avena sp a.fr.	-	-	_	-	-	-	-		-	-	-		-	-	-	-		-	-	-	+	-	<u> </u>	-
Bromus mollis/secalinus	-	1	-	-	-				-	-	-	-	1cf	-	-	Zfr	-	+	-	-		1		-
Gramineae indet	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+	-	-	-	3		-
Honocot stem frags	-	-		-	-			-	_	-	-	-	-	-	-	-	-	-	-	-	-	+	L	-
Rhizone Frags	-					-		-	-		-	-	-	-	-	-	-	-	-	-	+	+		+
Buda	-	1		-	-	-	-	-	-	-	-		-	-	-	-	-	-	+	-	-	-]	-
Thorns	-	-	-	-	-	-		-	-		-	-	-	-	-	_	-	-	-	-	1	-	<u> </u>	-
Bracts	-	-	-	-	-		-	<u> </u>	-	-	-	-	-	-	-	-	-	-	-	-	-	2	<u> </u>	-
Indet seeds atc	1	-	-		-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1		-
Sample volume (litres)	9	7	10	9	9	11	9	9	9	11	10	10	8	11	7	10	7	8	7	5	9	10	11	8

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Table : Carbonised plant remains from Car Park I, Stansted (CIS) Taxa are represented by fruits or seeds except where indicated. Abbreviations: a-awn; Ca-caryopsis; co-cotyledon; fr-fragment; gb-glume base; ri-rachis internode; spb-spikelet base; C-cremation; CT-construction trench; ED-enclosure ditch; G-gully; P-pit/posthole; RK-round-house

Samples 7 (Context 31 : 3 litres), 9 (51 : 10 litres), 12 (55 : 7 litres) 27 (131 : 10 litres), 28 (133 : 8 litres), 30 (165 : 7 litres) produced only charcoal.

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