

Assessment of the fired clay from the Hadlow to High Haldon pipeline (HHH01)

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Summary

Ceramic building material was recovered from twelve excavations on the line of the Hadlow to High Haldon pipeline (HHH01). This material was mainly fired clay with no sign of surfaces or wattle impressions; its function is therefore uncertain although it is likely to indicate accidental or deliberate firing. There was some evidence for iron smelting.

Wattle and daub construction was clearly present on HHH01 49/5. There was a suggestion of clay being used for building on HHH01 36/4 and HHH01 46/2. Iron smelting occurred in the vicinity of HHH01 41/1, HHH01 45/3 and HHH01 53/1. The spread of material from HHH01 29/3, HHH01 37/1, HHH01 43/3, HHH01 43/4 and HHH01 44/1 and HHH01 51/8 is undiagnostic.

Description

The material was divided by eye into ten fabrics, coded FCLAY01 to FCLAY10 (Table 1). In addition, fragments of possible Romano-British tile and post-medieval tile were recorded. In several instances material submitted as fired clay was identified as being unfired subsoil cemented by iron panning and therefore of purely natural origin. All the fragments were counted and weighed.

SITEC ODE	ANB N	FCLA Y01	FCLA Y02	FCLA Y03	FCLA Y04	FCLA Y05	FCLA Y06	FCLA Y07	FCLA Y08	FCLA Y09	FCLA Y10	NA T	Grand Total
HHH0 1 29/3		3	12	11	1	1		5				13	46
HHH0 1 36/4			9	4	1			75			135	89	313
HHH0 1 37/1				24									24
HHH0 1 41/1		6	70							1		3	80
HHH0 1 43/3				19								1	20
HHH0 1 43/4	2	18		15			1	1	3			2	42
HHH0 1 44/1		4											4
HHH0 1 45/3			66					53			40		159
HHH0 1 46/2				96						64			160
HHH0				9				242					251

1 49/5														
HHH0			11											11
1 51/8														
HHH0			93	6				19	2	3		6		129
1 53/1														
Grand Total	2	31	261	184	2	1	1	395	5	68	176	113		1239

Fabrics

1. Few inclusions (31 fragments; 218g)
2. Fine sandy fabric (261 fragments; 1635g)
3. Sand with ironstone (184 fragments; 1318g)
4. Chalk inclusions (2 fragments; 33g)
5. Vesicular suggesting organic inclusions (1 fragment; 3g)
6. Coarse sandy fabric (1 fragment; 1g)
7. Ironstone inclusions in variagated clay (395 fragments; 3514g)
8. Vitrified clay with fuel ash glazing (5 fragments, 31g)
9. Vesicular with ironstone (68 fragments, 570g)
10. Ironpan inclusions (176 fragments, 538g)

Forms

The fired clay was identified as daub if it showed signs of a surface and/or had wattle impressions and/or had finger marks. Of the 295 fragments of fired clay there were only 42 which had these attributes. Of the 42 daub fragments 35 showed signs of a surface, five showed signs of just wattle impressions, one displayed finger marks and wattle impressions and one just finger marks.

SITECODE	DAUB	FIRED CLAY	FUEL ASH SLAG	IRONPANNIN G	IRONSMELTIN G	Grand Total
HHH01 29/3	15		18		13	46
HHH01 36/4	10		214		89	313
HHH01 37/1	1		23			24

HHH01 41/1		57		3	20	80
HHH01 43/3		20				20
HHH01 43/4	2	33	3	2		42
HHH01 44/1		4				4
HHH01 45/3		153			6	159
HHH01 46/2	13	147				160
HHH01 49/5	20	231				251
HHH01 51/8		11				11
HHH01 53/1		118		6	5	129
Grand Total	61	1029	3	113	31	1239

Assessment

It is by no means clear what was the function of the fired clay from collections which produced neither surfaces, wattle impressions or iron slag. It might therefore prove worthwhile to examine the archaeological context of the different types to see if there is any pattern.

Site-by-site summaries

HHH01 29/3

Of 33 pieces of fired clay (311g) there were fifteen fragments of daub recovered from this site, only one showing wattle impressions. Eight of the surfaces came from one context 29076 (7 of FCLAY03 - 48g and 1 of FCLAY02-11g); one came from 29068 (FCLAY03 - 70g) with wattle impressions (FCLAY07 - 7g). More fired clay was recovered from 29068 (FCLAY01 13g) and FCLAY02 (7g). This diversity of fired clay fabric suggests a dispersed spread of material. From this site there came 13 fragments of iron pan.

HHH01 36/4

224 fired clay fragments (1598g) came from this site; this included ten fragments of daub as indicated by surfaces: seven of FCLAY07 and three of FCLAY10. Context 36122 not only contained 3 pieces of FCLAY07 (48g) but also 15 other pieces of FCLAY7 (170g) together with 6 fragments of FCLAY02 (131g). Context 36091 contained one fragment of daub (FCLAY07 21g) and 46 fragments of fired clay (FCLAY07 648g). While there is an absence of wattle impressions it would seem likely that this material has some significance for their contexts, most probably structural. From this site there came 89 fragments of iron pan.

HHH01 37/1

This site held one piece of daub and 23 fragments of fired clay: all were FCLAY03. Together these came to 53g; this material suggests a fragmented scatter.

HHH01 41/1

Twenty fragments from this site showed signs of iron slag on a surface; these came from 41021 and 41031. There was also other fired clay from these contexts (103g from the first context and 159g from the latter). It would seem probable that there was iron smelting in the vicinity.

HHH01 43/3

There were twenty fragments of fired clay from three contexts of this site; a total of 32g. This is not enough to be significant.

HHH01 43/4

Of 35 fragments of fired clay (222g) only two pieces of daub were recovered from this site, identified through surfaces (both FCLAY03). However the diverse and minimal nature of the fired clay present on this site suggests a spread of material. There were three pieces of fuel ash slag, two pieces of burnt bone and one fragment of iron panning.

HHH01 44/1

The four fragments (9g) of fired clay from this site were not significant.

HHH01 45/3

There were 159 fragments of fired clay from this site (645g) and while none of them were identified as daub, six of them had slag clay on the surface. These all came from context 45014 which also

contained a quantity of other fired daub (62 fragments; 251g). It seems likely that iron smelting was carried out in the vicinity.

HHH01 46/2

There was daub from 46009 (5 fragments; 171g) and 46020 (8 fragments; 310g); surfaces were recovered from both contexts and daub with wattle impressions from 46020. Both contexts contained further quantities of daub (378g and 657g respectively). Some sort of wattle and daub construction would have probably existed somewhere nearby.

HHH01 49/5

There were 251 fragments (2049g) of fired clay (most FCLAY7) of which 20 were identified as daub. All the contexts have significant quantities of material, some of which is daub.

49022	9 fragments	30g
49027	25 fragments	103g
49029	41 fragments	877g
49039	12 fragments	325g

Surfaces were recovered from 49022 and 49027, surfaces and wattle impressions from 49029 and wattle impressions and finger marks from 49029 and 49039. All these together suggest wattle and daub construction on this site.

HHH01 51/8

There were 11 fragments of fired clay (25g) from this site. This is not significant.

HHH01 53/1

Of the 123 fragments of fired clay (972g) there were five fragments which showed evidence of slag and one which showed vitrified ash glaze. These fragments suggest iron smelting somewhere in the vicinity.

Further study

None of the material is sufficiently well-preserved to reveal any further details of the structures in which it was incorporated but it would be possible to establish whether or not the eight fabrics were the result of the use of different raw materials or were produced by treating the same raw materials in different ways. This would entail the production of thin-sections and chemical analyses of a sample of each fabric.

Costing

Task	unit cost	quantity	Amount
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Thin-sectioning	£21	10	£210
Chemical analysis	£21	10	£210
Total			£420

Appendix

SITECODE	Context Class	Description	CNAME	Form	NOSH	Wt
HHH01 36/4	36100CBM		FCLAY2	FIRED CLAY	2	6
HHH01 36/4	36122CBM		FCLAY2	FIRED CLAY	6	131
HHH01 36/4	36069CBM	REDUCED	FCLAY3	FIRED CLAY	1	3
HHH01 36/4	36069CBM		FCLAY3	FIRED CLAY	3	27
HHH01 36/4	36122CBM	DARK WITH CHALK	FCLAY4	FIRED CLAY	1	11
HHH01 36/4	36060CBM	SURFACE	FCLAY7	DAUB	1	3
HHH01 36/4	36091CBM	SURFACE	FCLAY7	DAUB	1	21
HHH01 36/4	36096CBM	SURFACE	FCLAY7	DAUB	1	16
HHH01 36/4	36098CBM	SURFACE	FCLAY7	DAUB	1	1
HHH01 36/4	36122CBM	SURFACE	FCLAY7	DAUB	3	48
HHH01 36/4	36070CBM		FCLAY7	FIRED CLAY	1	7
HHH01 36/4	36091CBM	TRACES OF SOOT	FCLAY7	FIRED CLAY	46	648
HHH01 36/4	36092CBM	TRACES OF SOOT	FCLAY7	FIRED CLAY	1	15
HHH01 36/4	36096CBM		FCLAY7	FIRED CLAY	3	47
HHH01 36/4	36098CBM		FCLAY7	FIRED CLAY	2	12
HHH01 36/4	36122CBM		FCLAY7	FIRED CLAY	15	170
HHH01 36/4	36070NAT			IRON PANNING	7	39
HHH01 36/4	36090NAT			IRON PANNING	67	311
HHH01 36/4	36100NAT			IRON PANNING	12	33
HHH01 36/4	36119NAT			IRON PANNING	3	17

HHH01 43/4	6303CBM		FCLAY1 FIRED CLAY	7	78
HHH01 43/4	43035CBM		FCLAY1 FIRED CLAY	1	7
HHH01 43/4	43069CBM		FCLAY1 FIRED CLAY	8	40
HHH01 43/4	43084CBM		FCLAY1 FIRED CLAY	1	1
HHH01 43/4	43092CBM		FCLAY1 FIRED CLAY	1	7
HHH01 43/4	43025CBM	SURFACE	FCLAY3 DAUB	1	2
HHH01 43/4	43084CBM	SURFACE	FCLAY3 DAUB	1	7
HHH01 43/4	43003CBM		FCLAY3 FIRED CLAY	1	11
HHH01 43/4	43014CBM	REDUCED	FCLAY3 FIRED CLAY	1	1
HHH01 43/4	43025CBM		FCLAY3 FIRED CLAY	2	7
HHH01 43/4	43047CBM		FCLAY3 FIRED CLAY	2	15
HHH01 43/4	43081CBM		FCLAY3 FIRED CLAY	1	7
HHH01 43/4	43090CBM		FCLAY3 FIRED CLAY	4	12
HHH01 43/4	43090CBM		FCLAY3 FIRED CLAY	1	15
HHH01 43/4	43112CBM		FCLAY3 FIRED CLAY	1	7
HHH01 43/4	43084CBM		FCLAY6 FIRED CLAY	1	1
HHH01 43/4	43047CBM		FCLAY7 FIRED CLAY	1	4
HHH01 43/4	43034BONE		BURNT BONE	2	1
HHH01 43/4	43019SLAG	VITRIFIED WITH ASH GLAZE	FUEL ASH SLAG	2	4
HHH01 43/4	43047SLAG		FUEL ASH SLAG	1	2
HHH01 43/4	43070NAT		IRON PANNING	1	3
HHH01 45/3	45004CBM		FCLAY7 FIRED CLAY	1	11
HHH01 45/3	45005CBM		FCLAY7 FIRED CLAY	8	15

HHH01 45/3	45006CBM		FCLAY7 FIRED CLAY	30	194
HHH01 45/3	45008CBM		FCLAY7 FIRED CLAY	12	30
HHH01 45/3	45014CBM		FCLAY7 FIRED CLAY	2	24
HHH01 49/5	49022CBM	SURFACES	FCLAY7 DAUB	5	23
HHH01 49/5	49027CBM	SURFACES	FCLAY7 DAUB	2	18
HHH01 49/5	49029CBM	SURFACE	FCLAY7 DAUB	6	258
HHH01 49/5	49029CBM	WATTLE IMPRESSION	FCLAY7 DAUB	1	22
HHH01 49/5	49039CBM	FINGER MARKS	FCLAY7 DAUB	1	56
HHH01 49/5	49039CBM	WATTLE IMPRESSIONS	FCLAY7 DAUB	3	68
HHH01 49/5	49039CBM	WATTLE IMPRESSIONS AND FINGER MARKS	FCLAY7 DAUB	1	73
HHH01 49/5	49022CBM		FCLAY7 FIRED CLAY	4	7
HHH01 49/5	49027CBM		FCLAY7 FIRED CLAY	23	85
HHH01 49/5	49029CBM		FCLAY7 FIRED CLAY	34	597
HHH01 49/5	49039CBM	TRACES OF CHARCOAL	FCLAY7 FIRED CLAY	5	125
HHH01 49/5	49039CBM		FCLAY7 FIRED CLAY	2	3
HHH01 56/4	6221CBM		PMTIL FLAT	1	25
HHH01 29/3	29068CBM	REDUCED	FCLAY1 FIRED CLAY	1	10
HHH01 29/3	29068CBM		FCLAY1 FIRED CLAY	1	3
HHH01 29/3	29084CBM		FCLAY1 FIRED CLAY	1	3
HHH01 29/3	29050CBM	SURFACE; REDUCED	FCLAY2 DAUB	1	3
HHH01 29/3	29076CBM	SURFACE	FCLAY2 DAUB	1	11
HHH01 29/3	29017CBM		FCLAY2 FIRED CLAY	2	2
HHH01 29/3	29067CBM		FCLAY2 FIRED CLAY	4	11

HHH01 29/3	29068CBM	REDUCED	FCLAY2 FIRED CLAY	3	7
HHH01 29/3	29068CBM	SURFACE	FCLAY3 DAUB	1	70
HHH01 29/3	29076CBM	SURFACE	FCLAY3 DAUB	7	48
HHH01 29/3	29067CBM		FCLAY3 FIRED CLAY	3	3
HHH01 29/3	29052CBM		FCLAY4 FIRED CLAY	1	12
HHH01 29/3	29094CBM		FCLAY5 FIRED CLAY	1	3
HHH01 29/3	29068CBM	WATTLE IMPRESSIONS	FCLAY7 DAUB	1	7
HHH01 29/3	29102CBM	SURFACE WITH SIGNS OF HEATING	FCLAY7 DAUB	1	18
HHH01 29/3	29108CBM	SURFACE	FCLAY7 DAUB	1	58
HHH01 29/3	29116CBM	SURFACE	FCLAY7 DAUB	1	38
HHH01 29/3	29062CBM		FCLAY7 FIRED CLAY	1	3
HHH01 29/3	6266CBM		PMTIL CURV	1	7
HHH01 29/3	29068CBM		RTIL	1	10
HHH01 29/3	29017NAT		IRON PANNING	2	2
HHH01 29/3	29050NAT		IRON PANNING	1	3
HHH01 29/3	29052NAT		IRON PANNING	2	8
HHH01 29/3	29084NAT		IRON PANNING	5	8