1.1 Assessment of the Humanly Modified and Unworked Stone

by Ruth Shaffrey (nee Saunders)

Introduction

1.1.1 Assemblages of humanly modified and unworked stone were recovered during excavation and watching brief works at Thurnham Roman Villa (ARC THM 98), Hockers Lane (ARC 420/99 62+200-63+000) and Thurnham Lane to West of Crismill Lane (WBG ARC 420/99 63+900-66+350).

1.1.2 The material was hand retrieved on site.

1.1.3 The recovery and study of the stone was undertaken in accordance with the Fieldwork Event Aims for the sites, which are set out in section 2 of the main report, above. The recovery of this material was undertaken to assist interpretation of the function of features and structures and the recognition of functional zones; it was also recovered to provide evidence for the status, economic orientation and patterns of contact and trade of the settlements.

Methodology

1.1.4 All retained stone was examined, in order to exclude the typically large body of unworked specimens from further consideration. Worked stone was then recorded by context, with details of geology, probable function and features of note.

Quantification

1.1.5 Approximately 450 fragments of stone were recovered. Tables 2.7, 2.8 and 2.9 summarise worked stone from Thurnham Villa; Table 2.10 lists burnt unworked stone, and Table 2.11 other unworked stone, from the same site. Table 2.12 lists stone from the watching brief at Thurnham Lane to West of Crismill Lane, and Table 2.13 that from Hockers Lane.

1.1.6 The assemblage included twelve fragments of rotary querns or millstones, with an additional six potential quern fragments. Of the twelve definite quern fragments, three were of Hertfordshire Puddingstone, four were of lava, three were of Greensand and two were of Millstone Grit. Of the six possible quern fragments, two were of a sandstone, two were of Greensand and two were of Millstone Grit. Three of these rotary querns may equally have been millstones - two of Millstone Grit, from a rubble layer (context 11422) and from the area of the cobbled surface around the well outside the Aisled Building (context 12361), and one of Greensand from context 11031, rubble from the corn-drier.

1.1.7 In addition to the four identifiable quern fragments of lava, there were approximately 50 small fragments of lava from various contexts. These were all very weathered and friable. Although they do not retain any original features, they are most likely to be fragments from rotary querns or millstones.

1.1.8 Several specimens of Greensand appear to have been used, or to have been intended for use, in building. There are several large square or rectangular chunks from contexts such as 11027 and 11031, rubble from the demolition of the corn-drier, a fill of ditch 11470 (context 11492), and a pit fill (context 12347). There is also a large collection of thinner slabs of Greensand, some of which were certainly exploited, probably as flooring since they demonstrate wear on one or both faces. In addition to this, one slab of Greensand may have been cut for a roof slab, though there is no suspension hole to prove it was ever actually used in this way.

1.1.9 One small cube of ironstone may have been a tessera and there are four whetstones made from ironstone (from contexts 10864 and 10684, rubble spread north of the temple) and Greensand (from contexts 10685, rubble spread north of the temple, and 15111) .

1.1.10 A wide variety of lithologies is represented, comprising Hertfordshire Puddingstone, lava, Greensand, Millstone Grit and Sarsen. The Greensand and the Sarsen would have been available fairly locally but the other stone types would have been imported varying distances from Hertfordshire (Puddingstone), Derbyshire (Millstone Grit) and the Rhineland (lava).

Provenance

1.1.11 Much of the worked stone was recovered from the fills of ditches, from rubble spreads and from layers within the enclosure at Thurnham Villa. A number of pieces were found in the area of the rubble spread around the well outside the Aisled Building. Very little was found in contexts within the individual buildings, although a number of fragments came from area of the 14-post structure, from contexts associated with the demolition of the corn-drier.

Conservation

1.1.12 No conservation is required. There is no reason to retain any of the material listed in the unworked stone tables. The remainder of the material should be retained until the implications of all the CTRL archaeological projects have been assessed.

Comparative Material

1.1.13 The main artefact types recovered during the excavations at Thurnham are the rotary querns and millstones. The materials exploited, the Millstone Grit, lava, Greensand, Sarsen and Hertfordshire Puddingstone are not unusual in Kent and were widely used during the Roman period in this area. Of these materials, lava, Greensand and Millstone Grit were the commonest.

1.1.14 Lava has been found at the CTRL site at Pepper Hill/Waterloo Connection (Shaffrey 2000). Lava is also widely known from other sites, including Springhead Roman small town (Roe 1999, 31), but especially in eastern Kent where sites include Church Field, Snodland where one fragment was found (Ocock and Sydell 1967, 213-214) and Fawkham, which produced “irregular lumps” of lava querns (Philp 1964, 72).

1.1.15 Millstone Grit is an equally common quern material in Kent and has been found on nearby sites including The Mount Villa, Maidstone (Kelly 1993, 228) and Joyden’s Wood (Tester and Caiger 1955, 182). This stone was also a favoured millstone material, hence the name, and millstone fragments such as those found here occur at sites across Kent including The Mount Villa, Maidstone (Kelly 1993, 228) and Keston Villa (Philp *et al* 1991, 180).

1.1.16 Hertfordshire Puddingstone is less common than lava, Millstone Grit and Greensand and it is harder to find comparisons. It tends to occur on earlier sites and on those which have the widest range of other lithologies such as the Roman Villa at Keston, further to the west, which produced two fragments of Puddingstone querns along with Greensand, Lava and Millstone Grit (Philp *et al*, 1991, 179). Other examples include one quern from Fordcroft, Orpington which may be made from Hertfordshire Puddingstone (Tester 1970, 68-69) and another at Oliver Crescent, Farningham (Priest and Cumberland 1931 69-70, quoted in Black 1987, 177).

1.1.17 Greensand was locally available and has been found at sites including the Romano-British farmstead at Fawkham (Philp 1964, 72) and Joyden's Wood (Tester and Caiger 1955, 182).

1.1.18 Sarsen is another locally available material but one which is rarely seen on other sites in Kent and its occurrence here is therefore slightly unusual.

1.1.19 The variety of materials exploited indicate the wide connections of the site. Commonly Romano-British sites in Kent produce querns of some, but not all the above materials. Other sites with a wide range of lithologies include Canterbury, where excavations in the Marlowe Car Park found querns of Greensand, Millstone Grit and lava (Blockley et al 1995, 1206) but not Sarsen or Hertfordshire Puddingstone. Nearer by at Springhead, meanwhile, the variety of lithologies used is more comparable, with querns of lava, Millstone Grit, Greensand and Hertfordshire Puddingstone (Roe 1999, 31).

1.1.20 With the exception of the lava identified at Pepper Hill/Waterloo Connection, no other comparable assemblages of worked stone are known to the author from any other CTRL sites.

Potential for further work

CTRL Landscape Zone Priorities and Fieldwork Event Aims

1.1.21 The following section discusses potential for further work in the light of the Landscape Zone Priorities and Fieldwork Event Aims.

1.1.22 The worked stone assemblage from Thurnham Villa offers good potential to address a number of the Fieldwork Event Aims for the site. There is a markedly wide variety of lithologies present, and a relatively large number of rotary querns. The presence of millstones is of considerable interest, and may indicate that large-scale production was taking place on the site. The presence of Hertfordshire Pudding Stone is also of note, since it tends to occur on earlier sites in the region.

1.1.23 Further typological and lithological study of the rotary querns and comparable material will be of considerable value for studying the economic orientation and patterns of contact and trade of the villa, including possible trading routes.

1.1.24 Further study of the types and lithologies of the worked stone in conjunction with more detailed stratigrapic analysis will help to identify any chronological or spatial indicators that could aid the recognition of functional zones, and of change over time in both patterns of trade and the economic orientation of the villa itself.

1.1.25 The study of millstones and querns at the site, in conjunction with the study of cereal assemblages, will be of interest for determining the nature and scale of agricultural production at the site.

1.1.26 Further study of the spatial distribution of building stone may help with the reconstruction of the form of buildings and features on site, and therefore illuminate their probable status and function.

New research aims and objectives for the CTRL archaeology project

1.1.27 The rotary querns and millstones represent an important assemblage for the region, both in terms of the wide variety of lithologies present, and in terms of the excellent contextual information available to support the analysis. It would be appropriate to make the results of any further study available for wider dissemination.

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1.2 Assessment of the Worked Shale

1.2.1 The following note has been added by the Project Manager.

1.2.2 A fragment of a shale spindlewhorl (SF 10970) was recovered during excavation works at Thurnham Roman Villa (ARC THM 98).

1.2.3 The object has been assessed by Leigh Allen (Finds Manager, OAU) and Fiona Roe (senior worked stone specialist for OAU CTRL assessments).

Quantification, conservation and comparative material

1.2.4 The object is a fragment of a shale spindlewhorl with a biconical section, with a diameter of *c* 42mm and a thickness of 14mm. It was recovered from context 12631, which is associated with the cobbled surface 12370 and the well immediately west of the aisled building.

1.2.5 Spindlewhorls are a common find on sites of this period, and were used in spinning. They were made from any materials readily to hand, including fragments of bone and broken pottery.

1.2.6 The object is currently being kept waterlogged and would require stabilisation if it is to be kept for long-term preservation or display.

1.2.7 The shale probably originated from Kimmeridge, but local sources exist in Kent. Limited further study of the object would probably identify its geological source.

1.2.8 Little information is currently available on shale from other CTRL sites, as it often tends to be recognised during assessment of other assemblages. Two fragments of shale were recovered from a single pit at White Horse Stone, comprising a finished bracelet fragment and a rough-out for a second. This suggests that the material may have been worked or finished on site during the early Iron Age.

1.2.9 Comparable material has also been recovered from OAU excavations at Westhawk Farm, Ashford, where jewellery was found made from local lignite resembling jet. This may suggest evidence for a local industry in this period.

Potential for further work

1.2.10 The object provides limited evidence for spinning on site, for which there is little evidence elsewhere in the artefactual record.

1.2.11 Its provenance is of interest. Hilary Cool has noted a concentration of copper alloy and bone hair pins in the vicinity of the aisled building, which she suggests may be evidence that it was a place where women regularly gathered. Further analysis of the provenance of the spindlewhorl in conjunction with other artefacts in the vicinity may provide further evidence for this interesting suggestion. Spinning and weaving were undoubtedly a significant part of women's daily routine in this period. This has the potential to contribute to Fieldwork Event Aims related to the function of features and structures, and the presence of functional zones on the site.

1.2.12 A search of published sources and results from other CTRL sites may show how commonly shale was used as a material on Late Iron Age and Roman sites in the region. This would provide evidence for the scale of exploitation of this natural resource, and whether there is any sign of change associated with the Roman conquest.

1.3 Assessment of the Calcareous Tufa

by Susan Pringle

Introduction

1.3.1 A small quantity of calcareous tufa was recovered during excavation works at Thurnham Roman Villa (ARC THM 98).

1.3.2 The material was hand retrieved on site.

1.3.3 The recovery and study of the tufa was undertaken in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. It was designed to contribute to understanding of the form of buildings and structures on the site, and therefore to the study of their status and function.

Methodology

1.3.4 Since the assemblage was relatively small, all the material was scanned and a basic record was made.

Quantification

1.3.5 A total of 106 fragments, weighing 43.7kg, were assessed. The quantity of material by context is shown in Table 2.14.

Provenance

1.3.6 The material is distributed across the site, with most coming from the area of the 14-post structure (including seven worked blocks), where it was re-used in the construction of the corn-drier. Tufa blocks also came from the areas of the main villa house and the aisled building. Table 2.15 shows the distribution of calcareous tufa by site area.

Conservation

1.3.7 The condition of the material is good. There are no special requirements for long term storage, other than the use of robust packaging materials and a dry environment.

1.3.8 At this stage, all the worked material should be retained, but the rubble can be discarded. In the future, if the blocks are fully recorded and, if necessary, photographed, the majority could be discarded.

Potential for further analysis

1.3.9 The assemblage has some potential for reconstructing the form of buildings, which will contribute to Fieldwork Event Aims regarding the function of buildings and the status of the site.

Additional note supplied by the Project Manager

Calcareous tufa forms naturally in the vicinity, being known, for example, at Maidstone (pers. comm. Fiona Roe). The occurrence of this stone at Thurnham can therefore be seen as an example of highly specialised natural resource exploitation, and this will be of particular interest if the occurrence of tufa can be securely linked with the earliest Romanised buildings.

Table 2.7: Thurnham Roman Villa ARC THM 98: Quern Fragments

Context	Count	Material	Comments
11016 SF 10411	1	Greensand	1 groove but this could be natural ? quern fragment
10825	1	Fine Grained Grey Sandstone	?quern fragment but rounded so hard to tell
10768 SF 10645	1 plus lots of bits	Hertfordshire Puddingstone	Fragment of an upper stone of a rotary quern
10971 SF 10503	1	Hertfordshire Puddingstone	Half an upper stone of a rotary quern
11237 SF 10773	1	Probably Lava But Needs Cleaning And Has Surface Deposits	Fragment of upper stone of rotary quern with grooves on all surfaces
11044 SF 10456	1	Greensand, Possibly Slightly Burnt	Fragment of upper stone of rotary quern
Unstrat	1	Possibly Triassic Sandstone	Possible fragment of rotary quern although edges have gone – one very smooth surface. May have been used in a floor as a threshold stone?
11422 SF 10768	1	Millstone Grit	Fragment of rotary quern probably from a millstone
11023 SF 11016	5	Lava	Fragment of upper stone of rotary quern with grooving on the edges and grinding surface
11031	1	Greensand	Fragment of rotary quern with grooved grinding surface
11031 SF 11013	1	Dark Glauconitic Greensand	Fragment from rotary quern with grooved grinding surface and possibly from a millstone
10906 SF 10686	1	Fine Grained Glauconitic Greensand	? Quernstone but well used on two faces as a grinding stone.
11345	1	Greensand	? Quern fragment slightly burnt
12361	1	Millstone Grit	Probably quern fragment. Pecked and worn, possibly part of a millstone
12361	3	Millstone Grit	Very small rounded chunks, possibly fragments from rotary querns.
12361	1	Millstone Grit	Probably quern fragment with 2 worn farces but no grooves or peck marks
15310 SF 11031	Lots	One Chunk And Lots Of Pebbles From Hertfordshire Puddingstone	Probable quern fragment although smashed.
11396	1	Lava	Probably quern fragment with faint traces of grooves.
20037 SF 10759	1	Lava	Rotary quern fragment with faint traces of grooving.

Table 2.8: Thurnham Roman villa ARC THM 98: Fragments of lava (probably originally from rotary querns or millstones)

Context	Count	Material	Comments
15001	3	Lava	Fragments
12358	4	Lava	Fragments
12420	1	Lava	Fragment
12101 SF 10935	20	Lava	All weathered and friable fragments
12480	2	Lava	tiny fragments
U/S	1	Lava	Rounded chunk
20069	1	Lava	Chunk
12460 SF 11014	20	Lava	Rounded fragments
11520	2	Lava	Chunks
10833	1	Lava	Rounded
11395	1	Lava	Rounded
11239	3	Lava	Rounded
10685	1	Lava	Rounded chunk
11179	1	Lava	Fragment
10531	1	Lava	Fragment

Table 2.9: Thurnham Roman Villa ARC THM 98: Worked Stone

Context	Count	Material	Comments
12361	1	Millstone Grit	Chunk with square edges, and worn, ?building stone.
15104	1	Pale glauconitic Greensand	?roof stone one chiselled pointed edge and one squared.
20464 SF 11028	1	Greensand	Possibly used but covered in calcareous deposits and green glassy deposit which needs to be investigated.
20008 SF10901	1	Greensand	Chunk with green glassy deposit which needs to be investigated.
15111	1	Greensand	Burnt, ?whetstone – one smoother surface
11031	1	Greensand	? building stone very square chunk
11492	1	Greensand	? Building stone large rectangular chunk
11985 SF 10931	1	Marcasite?	Natural mineral sphere, possible use as a marble but very rough to the feel.
11585	12	Fine grained Greensand	Large chunks certainly used as worn, some on both sides – used for flooring.
11585	31	Fine grained Greensand	Smaller chunks associated with the above – but no clear evidence of use
12347 SF 10984	1	Fine grained glauconitic Greensand	Chunk with worn/worked surfaces but too weathered to determine if ?quern or ?building stone
11208	1	Micaceous ironstone	Large flat hard sub rounded chunk– has one smoother surface which may have been utilised
12066	1	Ironstone	This chunk is quite cubic and may be tessera – fairly smooth edges
10685	1	Fine grained sandstone pebble	Whetstone with one groove and one concave surface
10684 SF 10638	1	Ironstone	Rectangular whetstone with smooth surfaces
11027	1	Very green medium grained glauconitic Greensand	Possible building stone – square edges.
10864	1	Ironstone	? Whetstone. Large flat chunk with concave surface.
11444	1	Fine grained grey sandstone	Round ball – sling shot?
20087	1	Sandstone	Fragment with one long groove otherwise unworked

Table 2.10: Thurnham Roman Villa ARC THM 98: Burnt unworked Stone

Context	Count	Material	Comments
11026	3	Chalk	Burnt and rounded
11087	1	Greensand	Burnt
15133	5	Greensand	Burnt fragments
10546	1	quartzitic sandstone	slightly burnt but unworked large chunk
10517	1	Greensand	rounded large chunk, burnt
10756	1	Greensand	burnt weathered chunks
10656	1	Greensand	burnt fragment
10604	2	Greensand	sub rounded weathered burnt chunk
10417	1	Sandstone	Tiny burnt fragment
10744	1	Glauconitic Greensand	Sub rounded slightly burnt chunk
10968	1	Greensand	Burnt sub angular fragment
10994	1	Greensand	Burnt fragment
10994	1	Fine grained sandstone	Burnt fragment
11023 SF 11015	2	Greensand	Large chunks, probably not a quern but burnt
11044	1	Limestone	Angular burnt chunk
11317	1	Greensand	Slightly burnt chunk
11244	1	Greensand	Burnt sub angular chunk
11939	1	Chert from the Greensand	Unworked burnt chunk
11828	2	Chalk	Rounded burnt fragments
15045	1	Greensand	Slightly burnt chunk
15402	1	Sandstone	burnt
15133	1	Greensand	Burnt chunk
15126	1	Greensand	Burnt rounded chunk
10157	13	Cherty Greensand	Lots small fragments, burnt
11099	10	Grey fine grained Greensand	Burnt small fragments
10156	30	Cherty Greensand	Lots small fragments, burnt
10634	2	Greensand	Burnt rounded fragments
11235	2	Sandstone	Burnt rounded fragments
11121	7	Chalk	Rounded burnt small fragments
15001	40	Greensand	Burnt fragments
11039	1	Chalk	Burnt
11039	3	Greensand	burnt
15064	6	Greensand	burnt
15214	1	Greensand	Fragment, burnt
20174	2	Greensand	Burnt angular fragment

Table 2.11 Thurnham Roman Villa ARC THM 98: Unworked Stone

Context	Count	Material	Comments
10380	1	Fine Grained Cream Glauconitic Greensand	Well rounded so any evidence of original usage destroyed
10380	1	Yellow Glauconitic Greensand	Well rounded so no evidence of use
10546	1	Cherty Greensand	Sub angular fragment
10532	1	Pale Green Glauconitic Greensand	Rounded large chunk
10623	2	Cherty Greensand	Fragments
10135	2	Ironstone	Chunks
10469	2	Ironstone	Small fragments
10469	1	Ironstone, Probably Carstone	Small fragment
10259	1	Ironstone, Hollow Type	Unworked
10517	1	Flint Pebble	Unworked chip
10756	1	Greensand	Small fragment
10110	1	Ironstone	From a wide hollow nodule
10706	1	Ironstone	Small rounded weathered pebble
10343	3	Ironstone	Chunks
10112	1	Ironstone	Sub rounded weathered chunk
10756	1	Greensand	Burnt weathered chunk
10197	1	Quartzitic Sandstone	Unworked angular small fragment
10609	1	Greensand	Unworked angular chunk
10656	2	Ironstone	Fragments
10656	1	Greensand	sub angular chunk
10380	1	Cream Glauconitic Greensand	well rounded
10616	1	Ironstone	Small fragment
10623	5	Ironstone	Very weathered small fragments
10646	I	Ironstone	Tiny fragment
10014	1	Greensand, Cherty Type	Angular fragment
10726	1	Ironstone	Tiny fragment
10084	2	Ironstone	Tiny fragments
10727	1	Ironstone	Small chunk
10685	2	Ironstone	Tiny fragments
10501	1	Ironstone	Small chunks
10242	1	Ironstone	Small chunk
10474	1	Granular Greensand	Really weathered chunk
10418	1	Pale Glauconitic Greensand	Well rounded weathered fragment
10654	1	Sandstone	Tiny unworked fragment
10643	2	Pebbles, Pale Orange Quartzite	Sub angular and unworked
10424	3	Pale Glauconitic Greensand	Sub rounded weathered fragment
10685	1	Ironstone – Tubular Variety	Small fragment
10349	1	Ironstone	Small fragment
10744	5	Ironstone	Small weathered chunks
10757	1	Ironstone	Small chunk
10063	1	Fossil	Unworked
10871	1	Very Red Ironstone	Sub angular unworked chunk
10772	10	Ironstone	Sub rounded fragments
10788	1	Ironstone	Unworked fragment
10830	2	Ironstone	Fragments
10871	3	Greensand	Small fragments
10870	2	Ironstone	Sub angular fragments

Context	Count	Material	Comments
10857	1	Ironstone	Weathered but unworked
10878	1	Ironstone	Small thin fragment
10772	1	Ironstone	Small thin fragment
10870	1	Ironstone	Sub angular fragment
10890	1	Fine Grained Greensand	Sub rounded chunk
10871	1	Ironstone	Small fragment
10810	2	Ironstone	Larger unworked chunks
10859	1	Ironstone	Thin fragment
10994	2	Cream Greensand	Angular fragments
11387	1	Ironstone	Small flat chunk
11396	2	Ironstone	Flat chunks
11317	1	Greensand	Chunk
11044	1	Shale	Angular chunk and unworked
11353	1	Ironstone	Fragment
11352	1	Ironstone	Fragment
11341	1	Ironstone	Fragment
11707	1	Ironstone	Tiny fragment
11343	1	Quartzitic Sandstone	Fragment
11044	3	Chalk	Very small weathered fragments
11244	1	Pale Glauconitic Greensand	Very angular sherd
11413	2	Ironstone	Chunks
11237	1	Greensand	Tiny chunk
11102	6	Chalk	Tiny fragments, sub rounded
11339	1	Ironstone	Sub angular fragment
11063	1	Greensand	Small rounded chunk
11468	1	Ironstone	Sub angular chunk
11331	1	Ironstone	Sub angular chunk
11332	4	Ironstone	Sub angular chunk
11479	1	Ironstone	Sub angular chunk
11394	1	Ironstone	Tiny fragment
11051	1	Sandstone	Unworked
11394	1	Ironstone	Sub rounded chunk
11052 SF 10463	1	Sandstone?	Sub angular chunk, unworked
11335	3	Ironstone	Sub angular fragments
11340	1	Ironstone	Large flat chunk
11337	1	Quartzitic Sandstone	Unworked chunk
11349	1	Ironstone	Small sub rounded chunk
11102	2	Chalk	Rounded small chunks
11334	3	Ironstone	Sub rounded small chunks
11351	1	Ironstone	Sub rounded chunk
11397	1	Greensand	Flatter fragment
11354	1	Ironstone	Very large chunk
11317	1	Flint	Pebble sherd not worked or burnt
11396	1	Fine Grained Sandstone	Small fragment
11317	1	?	Unworked pebble fragment
11392	2	Ironstone	Fragments
11392	2	Greensand	Fragments
12013	1	Ironstone	Tiny fragment
12013	3	Ironstone. Dark Red Variety	Well rounded fragment
12117	4	Ironstone	Sub rounded chunk
11831	1	Ironstone	Tiny chunk
11862	1	Dark Red Ironstone	Unworked small chunk
11961	1	Red Orange Stone	Tiny sphere, natural probably
11623	1	Ironstone	Small chunk
11637	1	Greensand	Small fragment
11865	1	Ironstone	Small flat fragment
11628	1	Ironstone	Small angular chunk
11623	1	Grey Greensand	Tiny chunk

Context	Count	Material	Comments
12279	2	Ironstone Of The Tubular Variety	Fragments
11865	3	Ironstone	Fragments
11641	1	White Greensand	Angular chunk
11574	1	Ironstone	Chunk
11576	1	Ironstone	Chunk
12101	1	Ironstone	Sub rounded chunk
12056	1	Ironstone	Small chunk
11584	2	Ironstone	Small
11584	2	Flint	Sub rounded
11967	1	Greensand	Angular chunk
11581	1	Ironstone	Small chunk
11641	2	Cream Greensand	Dirty irregular chunks
12203	1	Ironstone	Small fragment
11862	1	Ironstone	Small fragment
11713	2	Ironstone	Chunks
11578	2	Cream Greensand	Small fragments
11555	2	Ironstone	Chunks
11544	4	Ironstone	Chunks
12099	1	Greensand	Angular chunks
12119	1	Ironstone	Rounded chunk
12119	4	Grey Sandstone	Unworked friable chunks
12117	6	Grey Greensand	Friable sub rounded chunks
12434	1	Ironstone	Small chunk
12408	1	Ironstone	Small chunk
12378	1	Ironstone	Small chunk
15062	1	Orange Shale	Unworked
15104	2	Limestone	Sub rounded chunk
15075	1	Ironstone	Small chunk
12437	1	Ironstone	Small chunk
12397	1	Ironstone	Small chunk
12363	2	Ironstone	Chunks
15102	1	Ironstone	Tiny fragment
15037	3	Ironstone	Tiny fragments
15018	2	Ironstone	Small chunks
12361	1	Ironstone	Unworked fragment
12504	1	Greensand	Chunk
12504	1	Red Ironstone	Chunk
15104	1	Pale Greensand	Unworked chunk
15104	1	Greensand	Very weathered large chunk
12506	4	Misc	Fragments, unworked
15094	1	Quartzitic Stone	Unworked sherd
15019	1	Ironstone	Rounded chunk
15088	4	Pale Glauconitic Greensand	All rounded and weathered
15097	1	Pale Grey Quartzitic Stone	Sherd
15050	1	Ironstone	Small fragment
15001	1	Sandstone	Sherd
15001	5	Ironstone	Fragments
15058	1	Ironstone	Small fragment
15297	1	Cherty Quartzitic Greensand	Angular chunk which may have been a quern but has no remaining edges.
15214	2	Ironstone	Fragments
20126	1	Ironstone	Small fragment
15207	2	Sandstone	Tiny sherds
15191	1	Pale Glauconitic Greensand	Tiny fragment
20126	1	Red Ironstone	Well rounded chunk
20154	1	Ironstone	Small fragment
15308	1	Sandstone	Sherd
15389	1	Flint	Sherd

Context	Count	Material	Comments
20101	2	Ironstone	Tiny chunks
15191	1	Brown Sandstone	Tiny sub rounded fragments
20078	8	Ironstone	Chunks
15214	1	Red Ironstone	Well rounded small chunk
16263	2	Ironstone	Chunks
20166	2	Siltstone	Chunks
20077	1	Ironstone	Fragment
20123	1	Red Ironstone	Rounded chunk
15145	1	Cherty Stone	Sub angular chunk
15286	1	Ironstone	Chunk
20079	3	1 Reed And 2 Other Ironstone	Chunks
20252	1	Ironstone	Chunk
15143	1	Greensand	Rounded chunk
15145	1	Flint	Sherd
15145	1	Greensand	Dirty chunk
20089	1	Greensand	Small chunk
20058	4	Greensand	Small chunks
20097	1	Iron Nodule	Small chunk
20109	1	Ironstone	Small chunk
20188	4	Ironstone	Small chunks
20188	2	Quartzite	Chunk
15329	1	Ironstone	Chunk
15145	1	Greensand, Cherty Type	Probably unworked
20085	1	Greensand	Sherd
15249	1	Chert Greensand	Chunk
20144	1	Ironstone	Chunk
15218	1	Red Ironstone	Chunk
20028	1	Red Ironstone	Chunk
15279	1	Ironstone	Chunk
20057	4	Ironstone	Large chunks
20078	2	Pale Glauconitic Greensand	Small fragments
15111	1	Greensand	Chunk
15279	1	Swirly Greensand	chunk
15228	1	Ironstone	Chunk
20087	1	Ironstone	Chunk
20056	1	Greensand	Very weathered fragment
20002	1	Ironstone	Chunk
20002	1	Greensand	Chunk
20101	2	Ironstone	Small rounded fragments
20184	1	Ironstone	Small rounded fragment
20131	2	Cream Greensand	Rounded fragments
15133	1	Ironstone	Chunk
15179	2	Cherty Greensand	Very small fragments
U/s	1	Pebble	Flattish rounded unworked
20087	4	Sandstone	Fragments
20188	1	White Limestone	Chunk
12101 SF 10960	1	Not Lava	Unworked
12227	1	Cherty Stone	Chunk
10528	1	Fine Grained Grey Sandstone	Rounded chunk
10888	2	Cherty Greensand	Tiny fragments
11195	20	Pale Cream Greensand	Lots rounded weathered fragments
11120	13	Silty Stone	Small fragments
10295	2	Chalk	Rounded fragments
10528	2	Cherty Greensand	Very small fragments
11219	1	Grey Quartzitic Stone	Fragment
11026	6	Greensand	Fragments

Context	Count	Material	Comments
10292	1	Grey Quartzitic Stone	Tiny fragments
15021	67	Greensand	Angular chunks, lots
11120	4	Greensand	Small fragments
11224	3	Greensand	Small fragments
11085	11	Chalk	Small rounded fragments
10968	1	Greensand	Small rounded fragment
10894	1	Slightly Cherty Greensand	Sub rounded fragment
11243	10	Chalk	Rounded fragments
11248	20	Pale Glauconitic Greensand	Rounded fragments, some tiny
12233	20	Ironstone	Small tiny chunks
11267	4	Greensand	Tiny fragments
15018	20	Greensand	Chunks of varying sizes
11243	7	Greensand	Fragments
12333	7	Greensand	Fragments
15054	50	Greensand	Chunks, from building?
12203	2	Greensand	Fragments
11049	11	Greensand	Tiny fragments plus one large chunk
11093	2	Greensand	Tiny fragments
11093	1	Greensand	Tiny fragments
12483	2	Cherty Greensand	Fragments
12529	2	Greensand	Fragments
11044	6	Cherty Greensand	Fragments
10295	1	Cherty Greensand	Fragment
20037	20	Greensand	Chunks, some tiny
15148	20	Greensand	Small fragments
20048	1	Chert	Chunk
15063	6	Tufa	Fragments
15073	2	Tufa	Fragments
15081	1	Tufa	Fragments
15081	1	Chalk	Chunk
15081	1	Ironstone	Fragment
15083	1	Ironstone	Chunk
20058	12	Greensand	Small fragments
20058	2	Tufa	Fragments
20067	8	Greensand	Angular fragments, small
15308	20	Greensand	Fragments
15308	2	Ironstone	Fragments
15332	4	Chalk	Small fragments
20001	4	Greensand	Sub rounded fragments
15186	40	Greensand	Tiny fragments
15178	6	Ironstone	Tiny fragments
20071	1	Fine Grained Greensand	Angular chunk
20095	3	Chalk	Fragments
20095	1	Greensand	Fragment
20105	1	Very Hard Grey Greensand	Angular fragment
15269	3	Greensand	Sub angular fragments
15201	1	Grey Sandstone	Tiny fragment
15209	1	Ironstone	Small fragment
15212	3	Greensand	Small fragments
15203	7	Greensand	Fragments
15214	7	Greensand	Fragments
20179	1	Hard Quartzitic Stone	Angular fragment
20241	1	Greensand	Angular fragment

Table 2.12; Thurnham Lane ARC 420 64+600: Stone

Context	Count	Material	Comments
16	1	Fine Grained Grey Cherty Greensand	Burnt angular chunk, unworked.

Table 2.13: Hockers Lane ARC 42 62+200 - 63+000: Stone

Context	Count	Material	Comments
251	3	Greensand	Slightly burnt small fragments
99	1	Ironstone	Sub angular chunk
80	1	Ironstone	Sub angular chunk
70	1	Greensand	Angular chunk
54	6	Ironstone	Sub angular chunks
24	1	Ironstone	Sub rounded chunk
44	2	Greensand	Waterworn chunk.

Table 2.14: Calcareous tufa quantified by fragment count and weight

1.2	Count	Weight	Type	Period	Comments
10687	1	50	Tufa	RO	Rubble
10756	3	31	Tufa	RO	
11017	7	1210	Tufa	RO	<10,007> rubble, re-used in corndrier
11019	1	3160	Tufa	RO	<10,008> block, re-used in corndrier
11023	4	12198	Tufa	RO	<10,002-6> blocks, re-used in corndrier, some abraded
11023	3	1105	Tufa	RO	Rubble
11028	1	2780	Tufa	RO	Re-used block; wedge-shaped - ?voussoir
11031	1	4300	Tufa	RO	Re-used block, c.420x140x80mm
11303	1	48	Tufa	RO	Rubble
11392	3	48	Tufa	RO	Rubble
11641	26	1896	Tufa	RO	Rubble
11642	2	237	Tufa	RO	Fill of ditch 12545 containing tile deposit
12203	3	111	Tufa	RO	Rubble
12361	1	15	Tufa	RO	Rubble
12535	1	112	Tufa	RO	Rubble
15062	1	42	Tufa	RO	Rubble
15062	1	267	Tufa	RO	Rubble
15064	2	289	Tufa	RO	Rubble
15073	6	596	Tufa	RO	Rubble
15208	4	425	Tufa	RO	Rubble
15249	8	241	Tufa	RO	Rubble
15269	10	856	Tufa	RO	Rubble
15272	1	15	Tufa	RO	Scrap
15273	2	5160	Tufa	RO	Rubble
15277	1	1680	Tufa	RO	<10,001> block
20058	3	3400	Tufa	RO	Blocks
20058	7	1430	Tufa	RO	Rubble
20067	1	2050	Tufa	RO	<10,000> wedge-shaped - ?voussoir
20184	1	2	Tufa	RO	Scrap

Table 2.15: Distribution of calcareous tufa by site area

Area	Count	Weight grammes
Main villa house	12	6882
Temple	28	2133
Aisled Building	36	9571
14-post structure	17	24753
Other	13	415
Total	106	43754