HYEF93/94 Stone Archive Report

H. Major

Numbers in **bold** after the context details are the drawing numbers.

Methodology and factual data

Methodology

Most of the stone was catalogued at the assessment stage, with a small amount of stone (from the bulk tile, soil samples, etc.) added subsequently. The types of stone commonly occurring in Essex were identified by the author; where this was not possible, identifications were provided by Dr. G.K. Lott, British Geological Survey.

Discard policy

Identifiable unworked stone was discarded, except for samples of the stone types present. Unidentifiable unworked stone was kept, with a view to identification of samples, particularly of the coarse building stone. The writer suggests that there is little point in keeping all the lava, since most is in very poor condition (none has been discarded at the time of writing). This will have to be discussed with the recipient museum.

Summary of the material

Object type	Stone type	No. of pieces	No. of contexts

Saddle querns	-	10	10
Rotary querns:	Puddingstone	31	27
	Lava	N/A	139
	Millstone grit	N/A	84
	Other stone	14	14
Architectural stone	-	2	2
Whetstones and sharpening stones	-	29	29
Other objects		22	

Unworked stone (principally coarse building rubble) came from 379 contexts.

Querns

The assemblage from Elms Farm is one of the largest from Essex, with many pieces from good stratified contexts, and thus of great importance. To date, only the site at Mucking has produced a larger assemblage, which remains unpublished. The general range of Roman quern types from Essex is well known (see, for example, Buckley and Major 1983). There remain, however, a number of areas in which work remains to be done, principally concerned with dating. The number of querns from stratified contexts on this site has added to our knowledge of, for example, the circumstances of the introduction of puddingstone querns to the area. Similarly, it is thought that the use of Millstone Grit may be principally a later Roman phenomenon in the area, and the chronological distribution of this stone will be examined to determine whether the Elms Farm assemblage supports this theory.

The site produced no Iron Age type querns apart from those in Puddingstone, and possibly one in sandstone. Two of the puddingstone querns are from Iron Age contexts, and are therefore of some importance, as they are the first examples from Iron Age (as opposed to Roman) contexts from Essex.

The writer noted in the original project design that an unusual form of surface dressing was found on lava querns from nearby sites on the Blackwater estuary, with random pecking rather than the standard grooved dressing. This form of dressing also occurs at Elms Farm, in addition to the more normal grooves. However, the lava from the site was generally in such poor condition, that few pieces had any surface surviving, and it is impossible to say how common this form of dressing was on the site. Pecked grinding surfaces also occur in some quantity at Mucking, so the practice is not necessarily localised.

Analysis of organic traces on the surfaces of lava querns was suggested in the original project design, but it has been decided that this study would not be worthwhile in isolation, and in view of the generally poor condition of the lava querns.

None of the Iron Age and Roman querns are of local origin. The sources of the main stone types used are well known, but identification of the unidentified stone types from the site will potentially tell us something about trade from other areas of Britain.

Over half of the Millstone Grit (mostly definitely derived from quernstones) from the site has been reused in some way, mainly as sharpening stones. This may be related to the ironworking on the site, as one can imagine that if edged tools were being made, there would be a considerable demand for sharpening stones. It is even conceivable that the Millstone Grit querns were not actually used as querns on the site, but that broken pieces were being brought to the site specifically to be used as sharpening stones. The distribution of the reused Millstone Grit will be examined in relation to ironworking waste, iron edged tools, and other industrial tools **(SO49(ii))**.

Saddle querns

Ten pieces of stone were identified as being definitely or possibly from saddle querns, one from HYEF93 and nine from HYEF 94. Small fragments of saddle quern may be difficult to spot, particularly as the stones used for saddle querns in Essex seem to have been predominantly local erratic boulders, and those from Elms Farm are no exception. The only possible saddle quern fragment in a definitely non-local stone may be Greensand, from the Hastings Beds (below). This is also the only saddle quern from a potential pre-Roman context. Greensand is the most common non-local stone used for saddle querns in Essex, with at least twenty-six other examples known. They occur in late Bronze Age and later contexts, principally in coastal locations, including one from a late Bronze Age context at Heybridge Basin (Major 1988).

While saddle querns are a prehistoric form pre-dating rotary querns, their use continued throughout most of the Iron Age, alongside rotary querns. At Danebury, for example, although rotary querns first appear in contexts dating to the 5th century BC, saddle querns remain the more common type until perhaps the 1st century BC. It is therefore difficult to say whether the possible Period II Greensand quern is residual, or contemporary with its context, which is dated to the mid 1st century AD.

The other possible saddle quern fragments may be residual from the earlier occupation of the site, or may been brought to the site during the Roman period for use as building stone, although only one piece formed part of a structure at the time of excavation. This was a piece from a Period VI oven (20137), from which nearly 30kg of stone was recovered in a variety of types, mostly unworked.

Traces of reuse can be difficult to see on saddle querns, since their surfaces may not be as regular as that of a rotary quern in the first place, and secondary abrasion may not be very obvious. However, at least one example from a Roman context (below) was definitely used as a knife sharpening stone.

The distribution of the saddle querns appears to be of no particular significance. The largest number of fragments from one area was three from H (Table 1). Although this is 30% of the total number, it seems presumptuous to describe this as a concentration.

Area	No.	%
H	3	30
I	1	10
K	1	10
L	2	10
N	2	20
W	1	10
Total	10	

Table 1 Distribution of Saddle Querns by Area

Illustrated:-

Fine grained sandstone, well cemented. Saddle quern fragment, made on a natural boulder, with the full width probably present. The original boulder surface remains on one side, although the rest of the surviving edge has been deliberately shaped. The underside has been crudely split, giving a variable thickness to the stone. The grinding surface is flat and well finished, with areas of polish round the edge. Wt. 1350g. SF180, Fill 3743, Post-hole 3744, Area W, unphased **28**

Sarsen? Saddle quern fragment with a flat, smooth grinding surface. Wt. 2950g. Layer 6316, Area H, Period IV **29**

Possible edge of a saddle quern, re-used as a sharpening stone. It has one smooth, slightly dished surface. The underside is partly irregular, though smooth, and the edge partly smoothed. One broken edge has a possible knife sharpening groove on it (though this *might* be modern damage). Identification (G.K.L.): pale pink, very fine grained, porous, non-calcareous sandstone. Possibly Triassic; Triassic sandstones outcrop extensively in the western portion of the UK from the Dorset coast, through the Midlands into Cumberland. T. *c* 35mm, *c* 75x70mm, Wt. 248g. Fill 11414, Slot 11415, Area N, Period III **49**

Quartzitic sandstone. Probably the corner from a small, well finished, saddle quern made on an erratic pebble, with a smooth grinding surface and a rounded edge. The surfaces are well finished. The original width was perhaps *c.* 110mm. Wt. 368g. Surface 13045, Area H, Period III. **50**

A saddle quern fragment worked on a natural boulder, with a smooth grinding surface and a roughly shaped edge. The bottom has been left in its natural state. Wt. 4250g. Identification (G.K.L.): Quartzose sandstone, possibly Millstone Grit Group or Coal Measures. Fill 16253, Post-hole 16254, Area H, Period IV **21**

Shaped fragment, probably the edge of a saddle quern (cf North Shoebury), but possibly a plaque. The edge is nicely shaped, the bottom eroded. The grinding surface is smooth, but not polished. Surviving L. *c* 185mm, surviving T. 72mm. Identification (G.K.L.): Bioclastic sandstone, possible source in the Upper Jurassic,

Purbeck sandstone or Lower Greensand (Hastings Beds). Wt. 1485g. Fill 4767, Pit 4779, Area K, Period II **22**

Not illustrated:-

Quartzitic sandstone. Fragment from the rounded end of a saddle quern, worked on a natural boulder. The edges have been crudely shaped, the underside is natural. The grinding surface is smooth and slightly dished. *c* 150x100mm, max. T. 79mm. Wt. 1575g. Layer 5494, Area I, Period III B

Pebble fragment, medium grained sandstone. Scorched. Possibly the edge of a saddle quern or rubber. Wt. 58g. Fill 4142, Pit 4141, Area K, unphased

Quartzitic sandstone. An edge fragment from a waterworn, rather flat, natural pebble. One face may have slight polish, perhaps from use as a rubber, or possibly a saddle quern. *c* 85x80x60mm. Wt. 710g. Fill 20093, Oven 20137, Area L, Period VI

Quartzitic sandstone. A fragment, probably part of a saddle quern; definitely used as a rubber, at the very least. The 'edge' is natural, the adjoining surface smooth and slightly dished. Wt. 605g. Fill 23010, Pit 23012, Area N, Period IV

Rotary querns

Rotary querns occured in three main stone types; Hertfordshire Puddingstone, Rhenish lava, and Millstone Grit. There were also a few querns in other stone types. The range of stones present is standard for the county, although the number of querns in other stone types is higher than usual.

Puddingstone

Thirty-one quern fragments of possible or definite querns came from twenty-seven contexts, forming the largest excavated group of puddingstone querns from the county. Four pieces had no surviving finished surfaces, and may not have derived from querns. In particular, the single piece of puddingstone from HYEF93 was partly weathered, and may have been a natural erratic. As is usually the case, there were more upper stones than lower stones present; the numbers of each are shown in table 0.00. The ratio of definite upper stones to definite lower stones known from the county was 89:11 (data recorded in 2000, a total of 118 stones), while the ratio at Elms Farm is 93:7. Why there should be such a strong bias towards upper stones is unknown, although it is certainly easier to recognise a small fragment from an upper stone, particularly if part of the hopper is present.

Table 2 Gross numbers of puddingstone lower and upper stones present

Part	No.	%
Lower	1	3
Lower?	2	6
Upper or lower	9	29
Upper	14	45

Upper?	1	3
Not definitely quern	4	13
Total	31	

The distribution of the fragments across the site is not very informative . No area had more than four fragments, and only areas E, P, and W had no puddingstone at all. They were virtually absent from the Hinterland Zone, with a single, dubious fragment from Area W, but the numbers from the other zones were almost identical, with seven from the Northern Zone, nine from the Central Zone, and ten from the Southern Zone. Three of those from the Central Zone (all area J) are from post-Period III contexts, and may or may not be re-deposited from other areas. There is therefore no indication that the use (or at least the discard) of puddingstone querns was confined to a particular part of the settlement.

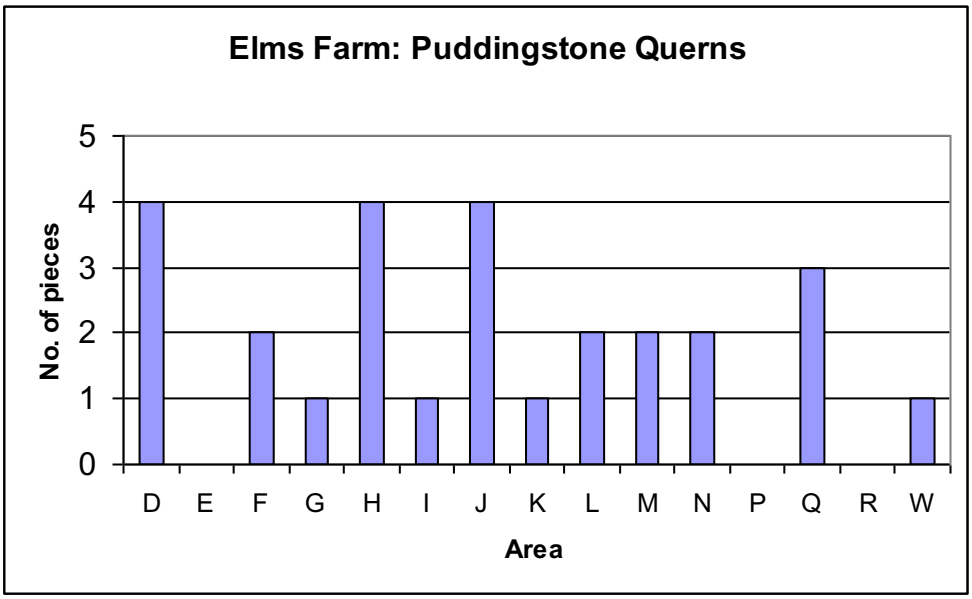

Fig. 1 Numbers of puddingstone querns by area (all periods)

Seventeen fragments came from dated contexts. Deposition of puddingstone on the site is strongly concentrated in Periods II and III (Fig. 1), with half the querns from closely date contexts coming from Period II alone. By the end of Period III, 75% of the quern fragments in dated contexts had been deposited. There is no evidence for extensive re-use of puddingstone querns as building material; only one of the five pieces from post-Period III contexts came from a construction (Oven 15984).

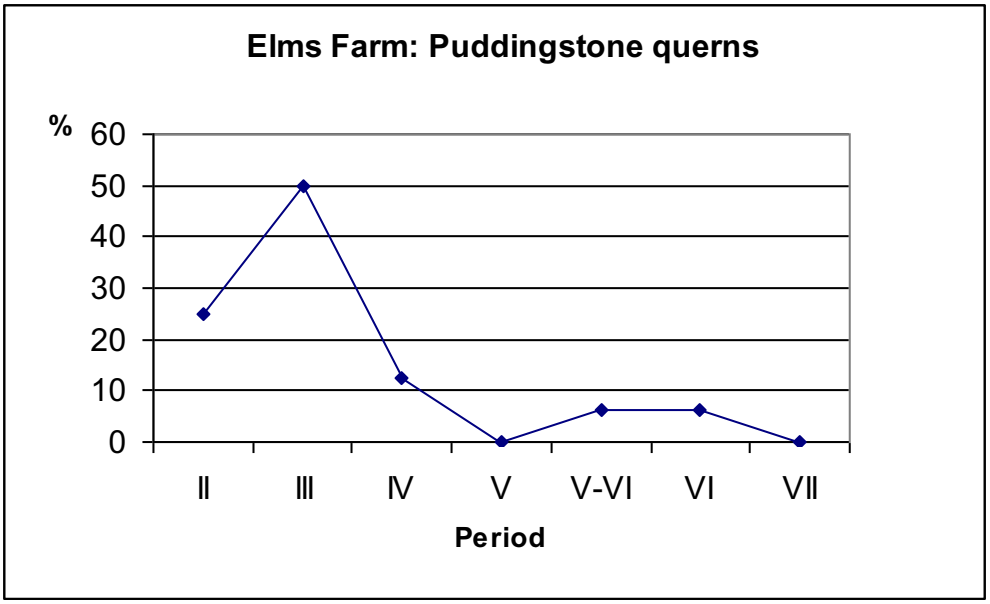

Figure 2 Puddingstone Querns: Percentage of the total number of pieces from each period (discrete periods only)

Prior to this excavation, no puddingstone querns had been recovered from an Iron Age context in Essex, despite the bun-shaped form being essentially pre-Roman. Even outside Essex, there are very few examples from Iron Age contexts, mostly dubious. There is, for example, a fragment from West Stow (West 1990, 93). The writer has not seen this stone, and considers that some doubt must remain over it being part of a rotary quern, since puddingstone was also occasionally used for saddle querns, as with a probable example from Woodham Walter, Essex (Buckley and Hedges 1987, 16). King (1986, 74, no. 55) lists a 1st century BC quern from Leagrave. This was from a 19th century excavation, apparently from a sealed context.

Four of the pieces from Elms Farm are from Period II contexts (Late Iron Age and Roman transitional). Two are layers (9717 and 17201) with earliest Roman pottery present. The other two pieces are from pits, one of them the 'Event Pit', 15417. Although the main deposit in this pit dates to about AD 10 at the latest, the quern is from the top layer, which could be later. However, J. Compton is of the opinion that it was probably deposited by AD 25. The quern shows little sign of wear, and was presumably fairly new when deposited. The second is from the single fill of pit 4203, which is less closely dated, and is early to mid 1st century AD. The handle hole of the latter quern is very close to the grinding surface, suggesting that it had worn considerably by the time of deposition. Neither of these pit fills is sealed, and while they could be intrusive, it seems likely from this evidence that puddingstone querns were in use by about AD 25. The fact that the bulk of the fragments were discarded in Period III suggests that they continued in use into the early Roman period. Presumably, most would only have been discarded when they broke, or became too worn to work efficiently.

It is clear from looking at the illustrated examples that the querns are very variable in size and form. Their shape is possibly dependant on the shape of the boulder from which they were made, and is not due to changes in form through time. The method

of fixing the handle to the stone, however, might have changed through time. There were two methods used, both present on this site. Some of the upper stones have a shallow groove round the base which formed the seating for an iron band into which a vertical handle was inserted. Few stones still have the band in place, although some have iron staining. The only example from Essex with the band surviving was found in Colchester in about 1910 (Acc. no. 2081.10; the stone cannot now be identified in the museum). Alternatively, the handle was fixed into a hole in the side of the stone. Some stones have more than one handle hole, and some have both a handle hole and a groove for an iron band. At Elms Farm, six stones had handle bands, but only one had a surviving handle hole, the stone from Period II Pit 4203. This is a most unusual stone, in that the handle hole completely pierces the stone; typically the depth of the handle hole is less than half the radius of the stone. There are very few examples of perforating handle holes in puddingstone; Curwen (1941, 21) illustrates one from Hardham, Sussex, dated to AD 50-150. The only other one from Essex is an unprovenanced stone in Colchester Museum. This type of handle hole is, however, a feature of 'Hunsbury' type querns (Curwen 1941, 16-20), an Iron Age form widespread in the Midlands, and whose distribution spreads into Hertfordshire. They were made mainly from gritstones, though also occur in sandstones. There is only one example definitely from Essex, a stray find from Felsted (Major 1988), although there is an unprovenanced example in Saffron Walden Museum. The classic Hunsbury form, relatively tall in relation to its diameter, and with a truncated conical shape, does not occur in puddingstone in this country, although one in puddingstone is known from France (Rouen Museum, unprovenanced).

Curwen (1941, 21) suggests that puddingstone querns may be a derivative of the 'Hunsbury' type, despite the somewhat different shape, and the few examples with perforating handle holes would tend to support this assumption. The presence of a perforating handle hole on the stone from Pit 4203, one of the earliest dated puddingstone querns in the country, certainly indicates that this was an early feature typologically, and one possibly copied from a 'Hunsbury' quern. The form may have been quickly abandoned in favour of the far more common non-perforating handle-holes. While it is tempting to see the use of a handle inserted into an iron band as a later introduction, it cannot have been a particularly late feature, as the stone from layer 9717 (earliest Roman) has a handle band.

Illustrated (ordered by period):-

Upper, *c* 25%. The edge is badly damaged. It has a large conical hopper with no feedpipe. There is little sign of wear on the grinding surface. Original diam. *c* 360mm, ht. 110mm. Hopper diam. max. *c* 130mm, min. *c* 50mm. Wt. 3250g. Fill 15490, Pit 15417, Area M, Period II **64**

Upper stone, *c* 50%. There is some damage to the surface and edge. The hopper is straight sided and slightly conical, with no feed pipe. There is a hole in the side of the hopper, where a pebble has come out. This probably occurred during manufacture, as the top edge of the hole is rounded. The handle hole perforates the hopper. The grinding surface is flat. Hopper diam. 42-50mm, stone diam. *c* 270mm, ht. 120mm. Wt. 3950g. Fill 4168, Pit 4203, Area K, Period II **60**

Upper, *c* 20%. A small bun-shaped stone with a cupped hopper with a short feed pipe. There is a handle band. The edge is damaged. Ht. 88mm. Wt. 1590g. Layer 9717, Area D, Period II B **58**

c 20% of a small, flat upper stone with a small cupped hopper with no feed pipe. Ht. 59mm. Diam. c 290mm. Wt. 1005g. Fill 7152, Pit 7118, Area G, Period III **53**

Upper, *c* 25%. A rather flat stone with a damaged edge. The cupped hopper has no feedpipe. The grinding surface is flat. Ht. 82mm. Wt. 2325g. Post-hole 13443, Area I, Period III B **63**

Upper edge fragment with well-made groove for the handle band. The grinding surface is very smooth. Max. surviving ht. 75mm. Wt. 925g. Fill 9796, Pit 9750, Area D, Period III C **59**

Upper edge fragment with a pronounced flange as the seating for the handle band. Wt. 296g. Cleaning layer 5383, Area J, Period VI **23**

c 40% of a very flat upper, some damage to the surface. It has a small, cupped hopper with a short feedpipe. The grinding surface is polished. Max Ht. 60mm. Wt. 3625g. Machining layer 4000 **52**

Upper, *c* 40%. A large stone with a well defined handle band. Cupped hopper with no feed pipe. The pebbles in the grinding surface stand slightly proud of the matrix, and show striations from use. There is some damage to the top. Hopper diam. *c*70-50mm, D 380mm, ht. 136mm. Wt. 9500g. Machining layer 4000 **61**

c 40% of an upper, edge damaged. A small part of a well defined handle band survives. The cupped hopper has no feed pipe. The matrix has some extremely large pebbles in it, some of the biggest that I have seen. Ht. 107mm, diam. *c* 300mm. Wt. 4875g. Cleaning layer 6515, Area H, not phased **54**

Upper, *c* 50%. Conical hopper with no feed pipe, handle band present, smooth grinding surface. There is damage to the edge. Diam. *c* 250mm. Wt. 2675g, Layer 9065, Area D, not phased **56**

Upper, *c* 30%. Edge damaged. A fairly small stone with an hour-glass shaped hopper. Ht. 70mm. Wt. 2825g. Layer 10310, Area F, not phased **62**

Upper fragment, iron stained and probably burnt. It has a large conical hopper with no feed pipe. There is damage to the edge. Wt. 1815g. Machining layer 17000, Area Q **55**

Lower, *c* 40%. A small, flat quern with a nicely finished bottom. The hole perforates at a slight angle. Ht. 64mm, D. 240mm. Wt. 2575g. Machining layer 4000 **57**

Rhenish Lava

130 contexts on HYEF94 contained lava, and eight from HYEF93. The lava from the site was generally in very poor condition, fragmented and without surviving surfaces, not an unusual state for Roman lava. The largest single piece was half an upper stone from 4000.

Eight Period II contexts (i.e. potentially Late Iron Age) contained lava. However, when the other finds from these contexts were scrutinised, it was found that all except one contained some Roman material. In particular, 6557 (Ditch 6558) contained 7kg of tile, and was noted as a late Roman context on the database. Its designation as Period II A on the context list that I was given must be a mistake. The exception is 17140, a fill of Late Iron Age Well 17155. The context is interpreted as the fill between the wooden lining (which was removed in antiquity) and natural, and it is possible that the small fragment of lava (wt. 28g) from this context is intrusive.

A small chip of basalt from a Period IV context, which appears to be from a quern, is of some interest. It is visually different from the lava from which the other querns are made, although a source in the Rhineland is likely.

Where there are any features surviving, the stones exhibit the normal range of dressing techniques used in Roman querns. Grinding surfaces either have grooves, usually arranged in panels (harp dressing), or are pecked. The latter surface treatment is rare on lava querns from Essex, although it also occurs at Chigborough Farm, Little Totham, only a few kilometres from Elms Farm (Major 1998).

The chronological distribution of the lava querns is discussed below, together with the other stone types.

Illustrated:-

Five joining fragments forming *c* 25% of a lower stone with a perforating central hole. The grinding surface is pecked, and there are grooves on the edge. The underside is irregular, and probably eroded. The central hole perforates, diam. *c* 15mm. T. at edge *c* 42mm, T. at centre 53mm, Diam. 396mm. Wt. 4135g. (Note pieces of same stone from 23007) 23008, Hearth 23157, Area N, Period III **66**

Upper stone, *c* 50%. Standard form, with a kerb 45mm wide. The top has grooved panels, and the edge has vertical grooves. The grinding surface is partly eroded, and may have been pecked. The stone has broken across the handle hole through the kerb. The surface of the hole, and an adjacent area on the inside of the kerb are very smooth, probably wear caused by the handle. The hopper edge is very thin, with a large diameter, giving a grinding surface that is only 13-14cm wide around the hopper. Max. T at edge 68mm. Wt. 5500g. **Diam.** 4000, Machining **65**

Upper, *c* 10%. Grinding surface has worn harp dressing. The top is grooved, with vertical grooves on the edge. The kerb is very low, barely present, but delineated on its inner edge by a groove. Kerb 60mm wide, T. at edge 37mm, Diam. 340mm. Wt. 730g. L20093, Oven Structure 20137, Period VI **24**

Not illustrated:-

A small chip with a flat, worn face, probably with worn grooves. Identification (G.K.L.): Basalt. Basaltic rock fragments are not common in the glacial drift, and a source in mainland Europe is likely, such as the Rhineland area. Wt. 20g. Fill 17037, Pit 17038, Area Q, Period IV

Millstone Grit

Millstone grit was recovered from 72 contexts on HYEF94 and seven contexts on HYEF93. Some pieces show no sign of original use as querns, and it is possible that some of the millstone grit did not derive from querns originally, but was brought onto the site as unworked stone. One fragment from 11000, for example, may be part of a door pivot stone, and shows no sign of use as a quern. Forty-five pieces show signs of reuse, mainly as knife sharpening stones. A piece from 4692 has traces of a red substance on its surface, possibly just iron staining.

Four querns have kerbs round the edge, a feature more usually found in lava, and undoubtedly an imitation of that form. Kerbed millstone grit querns are relatively rare but fairly widespread. Other examples from Essex come from Chelmsford (Major in prep), Chignall St. James (Major and Buckley 1998), Harlow (in Harlow Museum), and Stebbing Green, near Dunmow (Major 1999).

A number of pieces reused as sharpening stones appear to have been deliberately reshaped into a triangle.

Illustrated:-

Pink millstone grit. Three joining fragments from an upper stone edge, with a low kerb 40mm wide. The grinding surface is smooth and slightly dished. The edge is pecked and the top fairly well finished. The edge of the grinding surface has little nicks at intervals, possibly from reuse. T at edge 49mm, min. T. 24mm. D. 414mm. Wt. 1105g. Machining layer 4000 **16**

Fragment of upper stone. The grinding surface is eroded. The top has a low kerb *c* 56mm wide, with traces of a concentric groove inside this. T at edge 40mm, min. T 32mm. Wt. 840g. Machining layer 9000, Area D **17**

Upper stone edge fragment, with worn grinding surface, probably originally grooved. The edge and top are well finished, and there is a very slight kerb round the top, *c* 33mm wide. The edge of the central hole is probably present. T at edge 70mm, min. T 21mm. Diam. 400mm. Wt. 1620g. Cleaning layer 6000, Area H, not phased **18**

Well cemented millstone grit. Lower fragment with a perforating central hole, narrower at the top. The grinding surface is grooved and the underside irregular. The edge is a regular curve, but may have been cut down from a larger stone, as it is rather unevenly chipped. The grinding surface has been reused as a knife sharpening stone, with a dished area, and point sharpening grooves. There is also a groove along part of the edge, which may have been a seating for a clamp rather than a sharpening groove. Hole diam. *c* 40mm, T. 55mm. Wt. 5500g. Machining layer 15000, Area M. **19**

Lower fragment, edge not present. Perforating central hole, diam. *c* 55mm. Grinding surface smooth, underside slightly irregular. It has been reused as a sharpening stone, with grooves on the grinding surface and nicks on the edge, and the edge of the hole. The grinding surface has been used as a whetstone, causing undulations in the surface. Two of the broken edges have been used for knife sharpening, and possibly the underside as well. The piece is now roughly rectangular, *c* 310x180mm. Original diam. >400mm, min T 30mm, max T 50mm. Wt. 3625g. Fill 9376, Pit 9366, Area D, Period III C **20**

Lower stone fragment, with worn grooves on the grinding surface, and irregular underside. There is a slight lip round the edge, which would normally be taken to mean that it had been used with a smaller top stone. However, the grooves continue across the lip, which is polished, so the lip formed part of the grinding surface. Diam. *c* 490mm. Max. T at edge 28mm. Wt. 900g. Layer 6316, Area H, Period IV **25**

Two pieces of lower stone, forming *c* 60% of the stone. The larger piece is nearly half the stone, and is in good condition. The second fragment is undoubtedly part of the same stone, but is in poor condition, very crumbly where it is freshly broken, and the base has eroded off, leaving it much thinner than the main piece. It does not appear to join. The grinding surface is harp dressed, and partly worn smooth. The edge is pecked and the underside partly smooth. Diam. 476mm. Wt. 10350g. Cleaning layer 20007, Area L, Period V-VI **30**

Other stone types

Roman querns in stones other than puddingstone, lava, or millstone grit are rare in Essex; the only site with a substantial number of non-standard stone types is Mucking, which has thirty-seven non-standard fragments. Apart from the latter site, the writer knows of only twelve other examples from the county; five are greensand, four are other sandstones, one ragstone, one fossiliferous limestone and one 'Surrey marble'. The scarcity of greensand querns in Essex is curious, given the extensive use of greensand as a coarse building stone, although there are a number of examples from Mucking, five definitely greensand, and one possible. Overall, though, saddle querns in greensand are more common than rotary querns.

The Elms Farm assemblage includes ten definite querns and one dubious example in non-standard stone. The stone types represented are gneiss (possibly erratic), greensand, pebbly sandstone, possibly the Sherwood Sandstone Group, grit (possibly millstone grit series, and an unsourced sandstone. It is difficult comparing the range of stone types at Elms Farm with that at Mucking, as few of the querns from the latter site were sourced; however, the Mucking querns certainly include stone types not found at Elms Farm, such as sarsen, a possible Silurian sandstone, and a possible granite quern.

The shape of the Elms Farm stones is the normal Roman flat quern, apart from one of the sandstone fragments, which has a large hopper with a flat rim, a Southern British form rare in Essex, and another sandstone fragment, damaged by reuse, but possibly a low bun-shape.

The Purbeck Marble 'quern' (0.00 below) is something of a curiosity, as this highly decorative stone must have been relatively expensive. The surfaces are very eroded, with no definite signs of use as a quernstone, though the shape is that of a quern. Despite the central hole, which seems deliberately made, it is possible that this may have been a table top rather than a quern, or even a table top that was subsequently made into a quern. Liversidge (1955) notes that all the tables depicted on Romano-British sculptural reliefs have round tops and three legs, suggesting that this was by far the most common form of small table found in the province. There are numerous examples of shale tables of this form.

It is clear that the trade in querns in stones other than lava and millstone into the Essex area was very sporadic in Roman times. Few sites have more than a single example, and on the two sites with the highest number, Mucking and Elms Farm, there are a number of different stone types present. Greensand querns were arriving in higher numbers than other stone types, though apparently not in any quantity.

Illustrated:-
Quern fragment? Lower stone? The grinding angle would have been steep. One face is smooth, with faint striations, possibly caused by grinding, the other was fairly well finished. T. 55-78mm. Identification (G.K.L.): weathered metamorphic gneiss, probably a glacial erratic. Wt. 760g. Fill 4239, Pit 4128, Area K, Period VI **51**

Upper fragment, large hopper with flat rim. Sussex form? Grinding surface grooved and worn, well finished top and edge. T. at edge 66mm, min. T. 33mm. Identification (G.K.L.): Gneiss, possibly a glacial erratic. Wt. 510g. Machining layer 12346, Area B **45**

Reused quern fragment. Possibly part of a low bun-shaped upper; the only surviving feature is the perforating conical hole, probably the hopper. One face is rather irregular, the other (the original grinding surface?) has been reused as a sharpening stone, and is partly smooth but irregular. Hole diam. *c* 20-42mm. Identification (G.K.L.): Glauconitic sandstone, Lower Greensand (Hythe or Folkestone Beds). Wt. 536g. SF3211, Cleaning layer 5723, Area J, not phased **43**

Quern fragment with grooved grinding surface, other face eroded. Stone crumbly. Max. T. 48mm. Identification (G.K.L.): Glauconitic sandstone, probably Lower Greensand (Folkestone Beds). Wt. 505g. Fill 6640, Well 6641, Area H, Period V **44**

A massive fragment, which is surely from a millstone. The grinding surface has worn grooves, the other face is irregular. The edge appears to have been reshaped – it is roughly chamfered top and bottom, and crudely finished. T. 95mm. Identification (G.K.L.): Glauconitic sandstone, probably Lower Greensand (Folkestone Beds). Wt. 2550g. Fill 20034, Well 14984, Area L, Period IV-V **67**

A quern fragment, probably an upper, with a grooved grinding surface. The other surface is fairly roughly finished, but may have part of a kerb. Max. T. 45mm. Identification (G.K.L.): Pebbly sandstone, possibly the Sherwood Sandstone Group (formerly known as the Bunter Pebble Beds). These pebbly units outcrop extensively in the West Midlands, and extend down into South West England. Wt. 494g. Fill 15087, Pit 15078, Area M, Period VI **42**

Pebbly conglomerate, as 15087. Two joining pieces forming *c* 60% of a lower. The central hole perforates, and has a slight hourglass shape. The grinding surface has worn harp dressing, and the underside is roughly flat. A very small area of the rounded edge survives. The rest of the edge may have been deliberately chipped away. T. at edge 48mm, T. at centre 95mm, diam. 480mm. Wt. 15500g. SF1558, Layer 9425, Area D, not phased **40**

Pebbly quartzitic sandstone, as 15087. Fragment from the centre of an ?upper stone. Pecked grinding surface, other surface fairly well finished. There is a hint of a very shallow hopper, forming a band *c* 25mm wide round the hole, which has a rounded edge. Max T 32mm, T at edge of hole 24mm. Wt. 348g. Machining layer 11000 **46**

Four joining pieces of upper stone. The surfaces are eroded and irregular, and the edge is probably missing. The central hole is almost straight sided, and there may have been a slight collar round it (this may simply be a product of erosion). Hole diam. 48mm, T. at centre 38mm, max. surviving diam. *c* 390mm. Could this be a **table top** rather than a quern? Identification (G.K.L.): Purbeck marble. Wt. 2160g. SF3473, Fill 10296, Ditch 10406, Area F, Period V-VI **41**

Not illustrated

Well cemented gritstone, probably millstone grit series. A quern fragment, probably an upper stone. The grinding surface has worn grooves, the other surface is grooved but unworn. T 34-48mm. Wt. 272g. Cleaning layer 8000, Area E

Greensand. Fragment, possibly from the lower stone of a quern with concentric grooves . Flat, worn surface, damaged, with a groove running parallel to the edge, 25mm in, and traces of others further in. The edge is slightly chamfered, and the other surface rather irregular. Max. T 38mm, T at edge 24mm. **Draw?** Wt. 328g. Fill 8196, Well 8188, Area E, Period III.

Medium grained sandstone. Fragment with two smooth faces, possibly from a quern. T 21-32mm. Wt. 124g. Fill 20537, Post-hole 20536, Area L, Period IV-V

Chronological distribution of the querns

Certain difficulties are present in comparing the different stone types. Use of the gross number of pieces is problematic for the lava querns, as they are often (but not always) very fragmented. It was therefore decided that the number of contexts containing each stone type would provide a better measurement for comparative purposes. The data is shown graphically in Fig. 3.

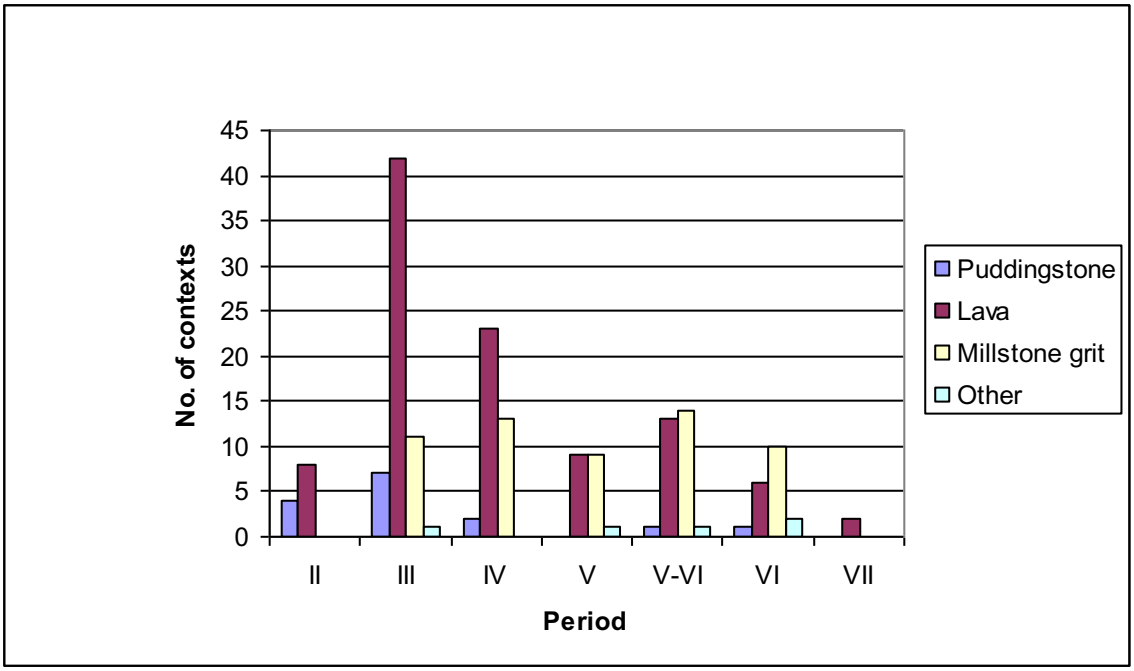

Fig. 3 Relative chronological distribution of the querns by stone type (discrete Periods only, by number of contexts)

As might be expected, most dated puddingstone querns were from Period II-III. Querns in stone types other than lava and millstone grit occur in small quantities throughout the Roman period.

The peak of lava quern deposition occurs in Period III (*c.* AD 40-160), falling off towards the later Roman period, whereas the deposition of millstone grit peaks in Period V-VI. It can therefore be said that on this site, lava querns predominated in the early Roman period, and millstone grit in the later Roman. It is not possible to date the lava querns intrinsically, so it is impossible to say what proportion of the later Roman lava is residual. However, given that there are almost as many Period V-VI contexts with lava as there are with millstone grit, the use of lava querns probably continued to the end of the Roman Period, though at a reduced level. The occurrence of lava in Period II contexts has been noted above, and in most cases the contexts can be shown to be transitional rather than purely Iron Age. This suggests that the introduction of lava querns occurred very early in the process of Romanisation of the site. The first lava querns arrived in Britain with the Legions, but the rapid development of trade to civilian settlements is attested by finds of lava from pre-Boudiccan London (Philp 1977, 64) and Colchester (Buckley and Major 1983). The dissemination of lava querns to lesser settlements such as Elms Farm appears to have been almost as swift, the ease of use of the flat form, and the relative lightness of the stone contributing to the demise of the more cumbersome puddingstone quern.

It can be seen from Fig. 00 that deposition of millstone grit increases through time. Deposition begins in Period III; unlike lava querns, there are none from the transitional contexts of Period II, suggesting that the use of flat querns made from millstone grit begins later than those made from lava. This is supported by closer

examination of the dating of the contexts with millstone grit. While some could be as early as late 1st century (though possibly 2nd century), most are early to mid 2nd century. There is slight evidence for earlier use of millstone grit in Essex, comprising a possible millstone fragment from a 1st century context at the villa at Chignall St. James (Major and Buckley 1998, 93). There is however, no conclusive evidence for millstone grit occurring earlier than the beginning of the 2nd century at Elms Farm. The millstone grit querns with kerbs could be 1st century; there is an example from Castleford from a context dated early-mid 70s (Buckley and Major 1998, 247), but the form may be later in Essex. The kerbed quern from Stebbing Green, for example, is probably the same date as the associated building, 2nd to early 3rd century (Major 1999).

The number of Period III contexts with millstone grit is only slightly lower than in Period IV, which is somewhat surprising since it has been postulated that the trade in millstone grit querns to Southern Britain was predominantly a 3rd and 4th century phenomenon (e.g. in Milne 1985, 122). This would now appear to be a rather simplistic view; at Elms Farm deposition of millstone grit actually drops in Period V (mid 3rd century-mid 4th century), though this may be due partly to other factors. The overall number of excavated contexts of that period is less than half the number of excavated Period IV contexts, for example. However, other evidence suggests that there may be a genuine drop in activity at the site as a whole at this period, and the decrease in the deposition of querns may reflect this.

Other worked stone

Architectural stone

Three pieces from the site may be carved architectural stone (as opposed to coarse building rubble, which is essentially unworked).

Illustrated:-

Joining fragments from three contexts in the same pit, forming a slabby piece with shaped edges. One face is smooth, the other broken. The shape is roughly a right angled triangle, with the hypotenuse forming a concave curve. The top face is chamfered on one edge, and there is a groove across the face, from this edge, running below the curved edge. Possibly architectural. Max. surviving T. 67mm. Identification (G.K.L.): Lithic sandstone, Upper Carboniferous (Millstone Grit Group or Coal Measures). Wt. 1537g. Fills 5832/5841/5864, Pit 3805, Area J, Period VI **27**

A slab fragment, with the edge probably reused as a sharpening stone. The shape is possibly a segment of a circle, and it is possible that this was a decorative stone, possibly used in a building (probably not a quern). One face is very smooth, the other is smooth in patches. T. 25-31mm. Identification (G.K.L.): Quartzose sandstone, possibly Millstone Grit Group or Coal Measures. Wt. 350g. Layer 16187, Area H, Period V-VI **7**

Millstone grit. A quarter circle, with the curved edge well finished, the other edges broken. One face is well finished. The diameter is far too small for this to be the

original quern edge, but it could be part of a door pivot stone. Max. T. 45mm. Wt. 266g. Machining layer 11000 **9**

Whetstones and sharpening stones

The term 'whetstone' is used here for purpose made sharpening stones; other pieces of stone (e.g. quern fragments) re-used for sharpening are termed 'sharpening stones'.

There were twelve whetstones from the site. Five are made from natural pebbles, probably of local origin. The remainder are in sandstones from various sources. Two are probably lower Greensand from the Hythe Beds, four are probably Millstone Grit Group or Coal Measures, and one is an unsourced micaceous sandstone/coarse siltstone.

Some of the whetstones are neatly squared, and two retain traces of steps along the edges which are a result of the method of manufacture as evinced by a very large group of over one hundred Roman whetstones from Canvey Island, Essex (examined by the writer, courtesy of Mr. and Mrs. Lewin, of Canvey), many of which were unused. Examination of this group showed that the bar whetstones were manufactured by splitting the stone into slabs of suitable thickness, then chiselling grooves along them at intervals, on both sides. The bar whetstones were then snapped off, like segments of a 'Kit-kat' bar, and the sides smoothed; however, some trace of the chiselled grooves generally remained. One of the Canvey whetstones has broken unevenly, and has part of the neighbouring whetstone still attached. The unused whetstones usually have one well finished end, and one rather roughly broken end. Although they appear to be incomplete, this was evidently their original length, and it may be surmised that the slabs from which they were formed were twice the length of the finished whetstones, each bar being broken in half after it was detached from the slab. Thus it is probable that at least three of the Elms Farm whetstones (SF7250, SF1949 and SF7529) are complete, despite having one broken end.

The non-local whetstones from Elms Farm are all from later/latest Roman contexts, bar one from a mid-Roman context.

Unlike querns, there has been no synthetic study of whetstones in Essex. Indeed, Roman whetstones as a whole are a neglected area despite their ability to tell us something about trading patterns. This is partly due to the fact that the main stone types employed for querns are easily identified by a non-specialist, whereas the identification of the source of whetstones really needs to be done by a geologist. This tends to be neglected, since the whetstones normally form such a minor component of a site assemblage. One exception is the group of nineteen from the 1971-79 Colchester excavations (Crummy 1983, 111-3), which may largely derive from the Hythe Beds of Kent, but which include two exotics, one in pennant sandstone from the Forest of Dean, and one from the south-west peninsula. The sourcing of the whetstones from Elms Farm is therefore of some importance for the study of whetstones in the county.

Illustrated:-

Non-local stone

No full thickness, rectangular section. One end is broken, but has a groove across it which may be deliberate, and contains possible mineralised material, which may be wood or bone. A green stain on the broken face is probably due to contact with copper alloy, although there are no copper alloy objects or coins from the context. L. 78mm, W. 25-27mm. Identification (G.K.L.): Calcareous sandstone, Lower Greensand (Hythe Beds?). Wt. 61g. SF7520, Fill 20320, Pit 20318, Area L, Period IV **37**

Rectangular section, with traces of 'manufacturing grooves' on one side, mostly worn away. One end finished, other broken. One face has a point sharpening groove, and the edges are slightly bowed through use. 68x24x15mm . Identification (G.K.L.): Glauconitic sandstone. Potential sources include Kentish Ragstone (Hythe Beds, Lower Greensand). Wt. 52g. SF1949, Fill 4690, Slot 4695, Area K, not phased **31**

Fragment in medium grained sandstone. Broken both ends, rectangular section. It has 'manufacturing grooves' top and bottom on one edge, and probable point sharpening grooves. There is slight dishing on one face. It has been used, but the corners are still sharp. 47x19x15mm. Identification (G.K.L.): Lithic sandstone, Upper Carboniferous (Millstone Grit Group or Coal Measures). Wt. 33g. SF1816, Spread 5148, Area J, Period V-VI **32**

Fragment with no complete thickness, broken both ends. Section probably sub-rectangular. L. 47mm, W. 32mm. Identification (G.K.L.): Lithic sandstone, Upper Palaeozoic, probably Millstone Grit Group or Coal Measures. Wt. 24g. SF7018, Fill 10498, Ditch 10520, Area F, Period V-VI **34**

Whetstone or sharpening stone fragment. A slabby piece with only one smoothed edge. There are four short nicks along one edge. 42x35mm, T. 9-12mm. Identification (G.K.L.): Micaceous very fine sandstone, Upper Palaeozoic, probably Millstone Grit Group or Coal Measures. Wt. 40g. SF7609, Fill 10891, Pit 10910, Area N, Period V **13**

Broken at both ends. One face and the edges are smooth, the other face is slightly rough, but has a groove along one edge. One edge has a manufacturing step on one side. L. 76mm, W. 24mm, T. 5mm. Identification (G.K.L.): Lithic sandstone, probably Millstone Grit Group or Coal Measures. Wt. 42g. SF7529, Fill 20752, Ditch 20751, Area L, Period VI **38**

Fragment, broken at both ends. Well made, with an oval section. 38x22x13mm. Identification (G.K.L.): Micaceous sandstone/coarse siltstone, possibly early Palaeozoic, possibly from South-west England, Wales or Scotland. Wt. 21g. SF1071, Layer 6008, Area H, Period V-VI **33**

Whetstones made from pebbles

Fine grained sandstone. A large, complete, irregularly shaped whetstone with uniform patination. It was probably a local pebble which has been worked into a curiously twisted, almost symmetrical dumbbell shape, with partly smoothed cut lines present and other areas of wear. L. 168mm, W. *c* 48mm, T. *c* 26mm. Wt. 286g. SF8056, Fill 24219, Gully 24217, Area M, Period III **8**

Probably a natural pebble (stone type not identified), probably used as a whetstone. The ends are rounded and the section rectangular. The sides are slightly more polished than the faces. 43x18x13mm. Wt. 26g. SF7161, Layer 15614, Area M, Period VI **35**

Probable natural pebble, a thin bar with a rectangular section, possibly used as a whetstone. 53x13x13mm. Wt. 20g. SF6973, Machining layer 17000, Area Q **36**

Hard sandstone. Probably a natural pebble, used as a whetstone. Rectangular section, both ends rounded. One edge is bowed. L66mm, W 28-30mm, T 16mm. Wt. 68g. SF4154, Fill 4777, Pit 4776, Area K, Period II **12**

Sarsen? Pebble fragment, probably deliberately trimmed to give a neat rectangular section. One end is natural, the other broken or cut. Both the 'natural' faces have probably been used as a whetstone; the edges are unused. 63x23x17mm. Wt. 57g. SF1326, Cleaning layer 5305, Area J, Period V-VI **11**

Sharpening stones

Millstone grit. Sharpening stone; roughly rectangular, with all faces utilised. Five sides are roughly flat; the sixth is more irregular. There are knife sharpening grooves present. *c* 550x680x50mm. Possibly not originally part of a quern. Wt. 340g. Machining Layer 12000, Area R. **3**

Not illustrated:-

Fragment, probably part of a whetstone with a sub-rectangular section, in a fine grained sandstone. No full thickness, W. 41mm. Wt. 34g. Fill 14540, Pit 14586, Area L, Period II C

Rubbers

The term 'rubber' has been used in the catalogue for pieces with surfaces smoothed by indeterminate wear; this could be use as a rubbing stone, or as a knife sharpening stone, or as a crude mortar, for example. Nine rubbers were identified, none of them illustrated.
Five were natural sandstone or sarsen pebbles. Only one of these, from a prehistoric context, seems to have been shaped in any way prior to use. The other four rubbers were re-used fragments of millstone grit querns.

Other objects

There were a number of block and slab fragments, in a variety of stone types. Some of the following slab fragments may be mixing palettes for cosmetics or medicines, but none have the bevelled edge typical of mixing palettes.

One piece of grit may be a broken or incomplete conical weight.

Oddities include a fragment of chalk with possible incised lines on the surface, although these may be simply a natural formation. Another fragment which appears to be carved may also be a natural formation. A very well polished amethyst pebble may be naturally polished.

A complete list may be found in the archive catalogue.

Weight?

Grit, probably Millstone Grit. A truncated cone with a depression in the irregular top, perhaps an unfinished or broken weight. Diam. 26-42mm, Ht. 27mm. Wt. 47g. SF5540, Cleaning layer 14201, Area L, not phased. **14**

Blocks and slabs

Pink millstone grit. Probably originally a quern, but reshaped as a rectangular palette or rubber. Both surfaces and one edge are smooth. The profile is wedge-shaped. W. 90mm, surviving L 85mm, max. T. 40mm, min T. 19mm. Wt. 432g. Fill 10296, Ditch 10406, Area F, Period V-VI **2**

Fine grained, soft, yellow sandstone. A slabby, squarish fragment, probably utilised, and possibly from a quern. One face has two possible grooves. *c* 95x80mm, T. 13-41mm. Wt. 466g. Layer 10800, Area N, not phased. **5**

Slab fragment, one possible straightish original edge. The top is smooth, with slight damage (or possible deliberate carving?), and very faint striations on the surface. The underside is slightly irregular. T 30mm. *c* 175x110mm. Identification (G.K.L.): Purbeck marble. Wt. 1005g. Fill 16230, Ditch 16231, Area H, Period VI **10**

Fine grained stone; possibly siltstone (not identified). A slabby fragment with a well smoothed surface, back spalled. The face has two straight incised lines parallel to the edge, and there are also faint striations, parallel to each other, but at an angle to the incised lines. These scratches are ancient, and may be traces of tooling. *c* 58x60mm, max. surviving th. 14mm. Wt. 70g. Fill 5135, Pit 5093, Area J, Period IV **1**

Unidentified

Chalk lump *c* 56x40x30mm. There is possibly a pattern of incised lines on one flat face, although this may be a natural formation. Wt. 98g. Fill 5964, Pit 13873, Area J, Period VI **4**

Well polished, irregularly rounded, ?pebble. Translucent pale violet with a purple streak. Identification (G.K.L.): Purple amethyst/quartz ?pebble. It is difficult to assign a specific source for this sample. Amethyst is a common component of mineral veins around the UK and mainland Europe. The sample may even have come from the local glacial drift. Wt. 5g. SF6480, Fill 18352, Pit 18357, Area I, Period IV. **15**

Fragment, possibly worked. It resembles a rim from a vessel, but may just be a natural stone broken along the bedding planes, as the edge would be rather straight for a vessel. The identification suggests that it may be a non-local stone, though it could be an erratic. Identification (G.K.L.): Schist, probably from Scotland. Wt. 252g. Layer 15982, Area M, Period IV **6**

Tufa? A roughly rectangular slab, deliberately shaped, but with no other signs of use. Faces natural, sides more freshly broken. *c* 205x83x47mm. Wt. 1475g. Fill 24315, Post-hole 24314, Area M, not phased **47**

Tufa? It appears to be a possible quern fragment with a central hole, but this is probably just an effect of the way that it has broken just be the way that it has broken. It has one straight edge. One surface is roughly flat, the other irregular. Max. T. 34mm. *c* 190x120mm. Wt. 635g. Fill 24315, Post-hole 24314, Area M, not phased **48**

Crystalline shelly limestone? A slabby fragment, possibly with deliberate carving (although this might just be the effect of erosion). *c* 230x130mm, Max. T. 43mm. Wt. 2140g. 20089, Oven construction 20137, Area L, Period VI **26**

Pebble fragment, probably not utilised, though possibly used as a whetstone. Wt. 28g. SF7852, Fill 23427, Post-hole 23428, Area N, not phased. **39**
Crystalline sandstone. A roughly semi-circular slice, with the curved surface pecked. Possibly part of an architectural element, but could be a fragment from e.g. a pestle. Wt. 82g. Cleaning layer 13316, Area I, not phased. **Draw**

Not illustrated. Fine grained grey-green stone with thin bedding planes. Fragment from the corner of a slab. The surfaces are eroded, but the original thickness was probably *c* 24mm. 114x53mm. Wt. 222g. Cleaning layer 5597, Area I, not phased. Identification (G.K.L.): Siltstone, probably Kimmeridge Clay Formation.

Not illustrated. Piece of chalk with most of the surface surviving. It appears to have been crudely shaped, with possible cut marks visible. It is irregular, and does not appear to be a representational piece, so is presumably just a piece of building stone. *c.* 68x75x50mm. Wt. 266g. Fill 10877, Pit 10910, Area N, Period V

1.6 *Unworked stone*

Much of the 'unworked' stone collected from the site had been used as building rubble, and some may have been very crudely shaped. The stone collected was a sample only, and analysis by quantity is therefore unreliable. However, it is possible to make some general comments on spatial and chronological distribution.

Stone used as building rubble includes stone types which are not local to the site, in particular, Kentish greensand and septaria, the latter being the commonest building stone on the site (Table 3). Septaria is found in deposits along the north Essex and Suffolk coast, and was used extensively in Roman Essex. The greensand may have been arrived on site primarily as ballast in trading vessels, rather than being deliberately imported as a building stone; the tufa is probably also from Kent. Utilisation of stone for coarse building material would have been opportunistic, given the lack of good building stone in Essex.

With both septaria and greensand, it is difficult to tell whether it has been deliberately shaped: in the case of the septaria, because it tends to break naturally into irregular blocks, and in the case of the greensand, because the surface has usually eroded. Some of the tufa certainly seems to have been cut into rough blocks, and it is likely that this was true of the greensand as well. Septaria does not cut well, and was probably never neatly trimmed.

A possible alternative use for septaria is noted in passing. Morgan (1992) suggests that septaria could have been used as a source for hydraulic lime manufacture; analysis of samples of septaria from Colchester showed a lime content of about 48%. It is impossible to determine whether septaria was used in this way at Elms Farm.

Other stone used as building rubble includes flint nodules, various sandstones (probably mostly derived from local erratics), tufa, shelly sandstone, quartzite and sarsen. Table 00 lists the number of contexts from which unworked stone of each type was collected; the list may include some non-building stone, such as the burnt flint nodules.

Type of stone	No. of contexts
Septaria	216
Greensand	85
Burnt flint nodules	74
Sandstone	71
Natural pebbles	42
Chalk	28
Not identified	23
Flint nodules	19
Quartzite	14
Tufa	12
Sarsen	11
Limestone	11
Grit	3
Ferruginous sandstone	2
Ferruginous conglomerate	2
Kentish Ragstone	1
Pumice	1

Table 3 Types of unworked stone collected at Elms Farm

Table 4 lists the approximate number of contexts containing unworked stone of all types within each area (this includes burnt flint and burnt pebbles, which are unlikely to be building stone). It is clear that the majority of the unworked stone came from the vicinity of the temple (area J), with very little coming from the outlying parts of the site, areas Q and R in particular.

Area	No of contexts
D	12
E	7
F	26
G	20
H	59
J	172
K	12
L	15
M	26
N	19
P	6
Q	1
R	4

Table 4 Unworked stone; approximate number of contexts per area

It was assumed in the assessment that much of this material had been used as coarse building rubble, and further postulated that different stone types may have been used at different periods. When the proportions of contexts by phase containing septaria and greensand are compared, however, the evidence suggests that, for these two types of stone at least, the deposition rates were remarkably similar (Table 5).

	Septaria		*Unworked Greensand*	
Period	No.	%	No.	%
II	7	4	5	8
III	35	21	12	20
IV	25	15	13	22
V	23	14	7	12
V-VI	22	13	9	15
VI	44	27	14	23
VII	7	4	0	0
Total	163		60	

Table 5 Septaria and greensand: comparison of numbers of contexts and percentages of contexts by period (discrete periods only)

Both types of stone occur in small quantities in Period II contexts, and, apart from Period VII, show a fairly consistent pattern of deposition. For both, there is a drop-off

in deposition in Period V, though this is only slight for the septaria. All the Period VII septaria comes from the post-medieval fence-line in Areas H and J, and probably represents stone robbed from the precinct wall and used as packing in some of the post-holes.

The presence of septaria in seven Period II contexts initially suggested that it was already being brought onto the site before the Roman conquest. However, four of the contexts with septaria contain at least some Roman material. One Period II A context (Post-hole 18734 in area J) contained a substantial amount of septaria, over 78kg, but it is probable that the context number was a mistake for 18739, which was a Period IV wall. The presence of greensand prior to the conquest is not unexpected, as there was an established trade in greensand querns into this part of the country from the Bronze Age onwards. Septaria, however, is a soft and brittle stone only suitable for use as coarse rubble, and its presence in such quantity in a late Iron Age context could be considered unusual.

References

Buckley, D.G. and Hedges, J.D., 1987 *Excavation of a cropmark enclosure complex at Woodham Walter, Essex, 1976* E. Anglian Archaeol. 33

Buckley, D.G. and Major, H., 1983 'Quernstones', 73-76 in Crummy, N.

Buckley, D.G. and Major, H., 1998 'The Quernstones', in Cool, H.E.M. and Philo, C. (eds) *Roman Castleford; Excavations 1974-85 Vol I; the Small Finds* Yorkshire Archaeol. 4, 240-247

Crummy, N., 1983 *The Roman small finds from excavations in Colchester 1971-9* Colchester Archaeol. Rep. 2

Curwen, E.C., 1941 'More about Querns', *Antiquity* 15, 15-32

King, D., 1986 'Petrology, dating and distribution of querns and millstones: the results of research in Bedfordshire, Buckinghamshire, Hertfordshire and Middlesex', *Bull. Inst. Archaeol.* 23, 65-126

Liversidge, J., 1955 *Furniture in Roman Britain* London

Major, H., 1988 'Stone' 247 in Brown, N. and Adkins, P. 'Heybridge, Blackwater Sailing Club' *Essex Archaeol. Hist.* 19, 243-248

Major, H., 1988 'Felsted and Coggeshall: three quernstones', 249-251 in Priddy, D. (ed) 'The work of the Essex County Council Archaeology Section,

1987', *Essex Archaeol Hist* 19, 240-259

Major, H., 1998 'Objects of stone' in Wallis, S. and Waughman, M. *Archaeology and the Landscape in the Lower Blackwater Valley* E. Anglian Archaeol. 82, 126-127

Major, H. 1999 'Querns and millstones' in Bedwin, O. and B. 'A Roman malthouse: excavations at Stebbing Green, Essex 1988' *E. Anglian Archaeol Occasional Paper 6,* 17-19

Major, H. and Buckley, D.G. 1998 'The Quernstones' in Clarke, C.P. *Excavations south of Chignall Roman Villa, Essex, 1977-81* E. Anglian Archaeol 83, 91-3

Milne, G. 1985 *The Port of Roman London*

Morgan, G.C., 1992 'Analysis of samples' in Crummy, P. *Excavations at Culver Street, the Gilberd School, and other sites in Colchester 1971-85* Colchester Archaeol. Rep. 6, 65

Philp, B. 1977 'The Forum of Roman London: excavations of 1968-9', *Britannia* 8, 1-64

West, S., 1990 *West Stow, Suffolk: the Prehistoric and Romano-British occupations* E. Anglian Archaeol. 48

Appendix 1

Elms Farm Puddingstone Querns

Per	Con.	Wt. (g)		Diam.	Ht.	SF	Description	D. no.
	2100	302	?				Partly weathered lump, with no sign of use as a quern.	
	3830	645	U/L			SF204	Upper or lower edge fragment. Burnt. (Tr. 5 U/S)	
	4000	2575	L	240	64		Lower, c 40%. A small, flat quern with a nicely finished bottom. The hole perforates at a slight angle. Ht. 64mm, D. 240mm.	57
	4000	3625	U	310	60		c 40% of a very flat upper, some damage to the surface. It has a small, cupped hopper with a short feedpipe. The grinding surface is polished. Max Ht. 60mm.	52
	4000	9500	U	380	136		5015/7970. Upper, c 40%. A large stone with a well defined handle band. Cupped hopper with no feed pipe. The pebbles in the grinding surface stand slightly proud of the matrix, and show striations from use. There is some damage to the top. Hopper diam. c70-50mm, D 380mm, ht. 136mm. **Not boxed**	61
	6515	4875	U	300	107		c 40% of an upper, edge damaged. A small part of a well defined handle band survives. The cupped hopper has no feed pipe. The matrix has some extremely large pebbles in it, some of the biggest that I have seen. Ht. 107mm, diam. c 300mm.	54
	6609	1900	L?				Fragment from bun shaped stone, possibly a lower. The edge is badly damaged, and the stone has been burnt. Max. surviving ht. 78mm	
	9065	2675	U	250	80		Upper, c 50%. Conical hopper with no feed pipe, handle band present, smooth grinding surface. There is damage to the edge. Diam. c 250mm	56
	10310	2825	U	268	70		Upper, c 30%. Edge damaged. A fairly small stone with an hour-	62

Per	Con.	Wt. (g)		Diam.	Ht.	SF	Description	D. no.
							glass shaped hopper. Ht. 70mm	
	11000	420	U?				Edge fragment, probably upper stone.	
	17000	1815	U				Upper fragment, iron stained and probably burnt. It has a large conical hopper with no feed pipe. There is damage to the edge.	55
	17000	640	U/L				Upper or lower fragment with part of the grinding surface and outer surface. Max surviving ht. 85mm	
	20334	248	?				Lump with no worked surfaces, but signs of weathering. This may be an erratic, rather than a piece of quern.	
	23001	200	U/L				Burnt fragment with part of the grinding surface and outer face.	
II	4168	3950	U	270	120		Upper stone, c 50%. There is some damage to the surface and edge. The hopper is straight sided and slightly conical, with no feed pipe. There is a hole in the side of the hopper, where a pebble has come out. This probably occurred during manufacture, as the top edge of the hole is rounded. The handle hole perforates the hopper. The grinding surface is flat. Hopper diam. 42-50mm, stone diam. c 270mm, ht. 120mm.	60
II	15490	3250	U	360	110		Upper, c 25%. The edge is badly damaged. It has a large conical hopper with no feedpipe. There is little sign of wear on the grinding surface. Original diam. c 360mm, ht. 110mm. Hopper diam. max. c 130mm, min. c 50mm.	64
II B	9717	1590	U	244	88		Upper, c 20%. A small bun-shaped stone with a cupped hopper with a short feed pipe. There is a handle band. The edge is damaged. Ht. 88mm	58
II B	17201	1200	U/L				Chunk, and two joining chips of a burnt upper or lower stone. Part of the grinding surface survives, and possibly part of the outer surface. Max.	

Per	Con.	Wt. (g)		Diam.	Ht.	SF	Description	D. no.
							surviving ht. 82mm	
III	6337	8	?				BS2151 Small chip, no surfaces. The breaks look recent.	
III	6437	298	U/L				Fragment of upper or lower, with a very small area of grinding surface surviving; no other surfaces present.	
III	7152	1005	U	290	59		c 20% of a small, flat upper stone with a small cupped hopper with no feed pipe. Ht. 59mm. Diam. c 290mm.	53
III	20369	610	U/L				Burnt fragment, with part of the grinding surface	
III B	13442	2325	U	320	82		Upper, c 25%. A rather flat stone with a damaged edge. The cupped hopper has no feedpipe. The grinding surface is flat. Ht. 82mm.	63
III B	21615	76	U/L				U/L. A small fragment with part of the grinding surface, and the very edge of the central hole, diameter not measurable.	
III C	9796	925	U		75		Upper edge fragment with well-made groove for the handle band. The grinding surface is very smooth. Max. surviving ht. 75mm.	59
III C	9796	1900	U/L				Upper or lower fragment (not same stone as other piece from this context). Rather rough grinding surface, possibly reshaped for reuse as building material. Max surviving ht. 110mm	
IV	5092	865	U		105		Upper fragment, with part of the hopper and a very small area of grinding surface surviving. The edge is not present. Ht. c 105mm.	
IV	5578	1280	L?	280	88		Lower stone? fragment. The edge is nicely rounded where it survives. The edge of the central hole is present, and is probably a non perforating spindle hole rather than the edge of a hopper. Diam. c 280mm, ht. 88mm.	
IV-V	15796	730	?				Burnt fragment, with one smooth surface, other surfaces broken. This is presumably a quern fragment, but the surface	

Per	Con.	Wt. (g)		Diam.	Ht.	SF	Description	D. no.
							is slightly convex, which is unusual for a puddingstone quern.	
VI	5383	296	U				Upper edge fragment with a pronounced flange as the seating for the handle band.	23
V-VI	10296	348	U/L				Edge fragment, upper or lower. Smooth grinding surface with nicely rounded edge. Max. surviving ht. 40mm	

Appendix 2

HYEF93/4 Worked Stone Catalogue Version 2

Listed by object type

Stone Type - abbreviations used

AMB	Amber
B	Basalt
CH	Chalk
FL	Flint
GN	Gneiss
GS	Greensand
GT	Grit
KR	Kentish Ragstone
L	Lava
LS	Limestone
MG	Millstone grit
O	Other stone type
PM	Purbeck marble
PS	Puddingstone
Q	Quartzite
S	Sandstone
SC	Schist
SP	Septaria
SS	Siltstone
T	Tufa
U	Unidentified

The term ‘rubber’ has been used for pieces with surfaces smoothed by indeterminate wear; this could be use as a rubbing stone, or as a knife sharpening stone, or as a crude mortar, for example.

The lava has no surface surviving unless otherwise specified.

Where upper/lower stone has not been specified, the fragment could be either.

The list includes unworked stone which was boxed with the worked stone. See pro forma sheets for the rest of the unworked stone.

Identifications where noted by Dr. G.K. Lott, British Geological Survey.

Saddle Querns

Con.	Stone type	Wt. (g)	SF	Description	D. no.
3743	S	1350	SF180	Fine grained sandstone, well cemented. Saddle quern fragment, made on a natural boulder. The	28

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				original boulder surface remains on one side, although the rest of the surviving edge has been deliberately shaped. The underside has been crudely split, giving a variable thickness to the stone. The grinding surface is flat and well finished, with areas of polish round the edge. The full width is probably present. W. c 145mm, max. T. 62mm, surviving L. 160mm	
4142	S	58		Pebble fragment, medium grained sandstone. Scorched. Possibly the edge of a saddle quern or rubber, although I am rather dubious about this.	
4767	S	1485		Shaped fragment, probably the edge of a saddle quern (cf North Shoebury), but possibly a plaque. The edge is nicely shaped, the bottom eroded. The grinding surface is smooth, but not polished. Surviving L. c 185mm, surviving T. 72mm. Identification (G.K.L.): Bioclastic sandstone, possible source in the Upper Jurassic, Purbeck sandstone or Lower Greensand (Hastings Beds).	22
5494	S	1575		Quartzitic sandstone. Fragment from the rounded end of a saddle quern, worked on a natural boulder. The edges have been crudely shaped, the underside is natural. The grinding surface is smooth and slightly dished. c 150x100mm, max. T. 79mm.	
6316	S	2950		Sarsen? Saddle quern fragment with flat, smooth grinding surface. Max. surviving T 80mm, max. surviving dimensions 165x160mm.	29
10361	S	400		Millstone grit? Well cemented, rather fine grained. Fragment with one smooth, slightly irregular surface, other face natural. There is no indication of use as a rotary quern, but this could possibly be part of a saddle quern. Max. T 40mm.	
13045	S	368		Quartzitic sandstone. Probably the corner from a small saddle quern made on an erratic pebble, with a smooth grinding surface and a rounded edge. The surfaces are well finished. The original width was perhaps c 110mm. Possibly a quern rubber rather than a quern. Max T 45mm.	50
16253	S	4250		A saddle quern fragment worked on a natural boulder. The grinding surface is smooth, with a roughly shaped edge. The bottom has been left natural. Surviving area c 190x120mm, T. 105-115mm. Identification (G.K.L.): Quartzose	21

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				sandstone, possibly Millstone Grit Group or Coal Measures.	
20093	S	710		Quartzitic sandstone. An edge fragment from a waterworn, rather flat, natural pebble. One face may have slight polish, perhaps from use as a rubber, or possibly a saddle quern. c 85x80x60mm	
23010	S	605		Quartzitic sandstone. A fragment, probably part of a saddle quern; definitely used as a rubber, at the very least. The 'edge' is natural, the adjoining surface smooth and slightly dished.	

Puddingstone Querns
Includes all puddingstone

Con.	Stone type	Wt. (g)	SF	Description	D no.	
2100	PS	302		Partly weathered lump, with no sign of use as a quern.		
3830	PS	645	SF204	Upper or lower edge fragment. Burnt. (Tr. 5 U/S)		1
4000	PS	3625		c 40% of a very flat upper, some damage to the surface. It has a small, cupped hopper with a short feedpipe. The grinding surface is polished. Max Ht. 60mm.	52	
4000	PS	2575		Lower, c 40%. A small, flat quern with a nicely finished bottom. The hole perforates at a slight angle. Ht. 64mm, D. 240mm.	57	
4000	PS	9500		5015/7970. Upper, c 40%. A large stone with a well defined handle band. Cupped hopper with no feed pipe. The pebbles in the grinding surface stand slightly proud of the matrix, and show striations from use. There is some damage to the top. Hopper diam. c70-50mm, D 380mm, ht. 136mm. **Not boxed DRAW**	61	
4168	PS	3950		Upper stone, c 50%. There is some damage to the surface and edge. The hopper is straight sided and slightly conical, with no feed pipe. There is a hole in the side of the hopper, where a pebble has come out. This probably occurred during manufacture, as the top edge of the hole is rounded. The handle hole perforates the hopper. The grinding surface is flat. Hopper diam. 42-50mm, stone diam. c 270mm, ht. 120mm.	60	
5092	PS	865		Upper fragment, with part of the hopper and a		

			very small area of grinding surface surviving. The edge is not present. Ht. c 105mm.	
5383	PS	296	Upper edge fragment with a pronounced flange as the seating for the handle band.	23
5578	PS	1280	Lower stone? fragment. The edge is nicely rounded where it survives. The edge of the central hole is present, and is probably a non perforating spindle hole rather than the edge of a hopper. Diam. c 280mm, ht. 88mm.	
6337	PS	8	BS2151 Small chip, no surfaces. The breaks look recent.	
6437	PS	298	Fragment of upper or lower, with a very small area of grinding surface surviving; no other surfaces present.	
6515	PS	4875	c 40% of an upper, edge damaged. A small part of a well defined handle band survives. The cupped hopper has no feed pipe. The matrix has some extremely large pebbles in it, some of the biggest that I have seen. Ht. 107mm, diam. c 300mm.	54
6609	PS	1900	Fragment from bun shaped stone, possibly a lower. The edge is badly damaged, and the stone has been burnt. Max. surviving ht. 78mm	
7152	PS	1005	c 20% of a small, flat upper stone with a small cupped hopper with no feed pipe. Ht. 59mm. Diam. c 290mm.	53
9065	PS	2675	Upper, c 50%. Conical hopper with no feed pipe, handle band present, smooth grinding surface. There is damage to the edge. Diam. c 250mm	56
9717	PS	1590	Upper, c 20%. A small bun-shaped stone with a cupped hopper with a short feed pipe. There is a handle band. The edge is damaged. Ht. 88mm	58
9796	PS	1900	Upper or lower fragment (not same stone as other piece from this context). Rather rough grinding surface, possibly reshaped for reuse as building material. Max surviving ht. 110mm	
9796	PS	925	Upper edge fragment with well-made groove for the handle band. The grinding surface is very smooth. Max. surviving ht. 75mm.	59
10296	PS	348	Edge fragment, upper or lower. Smooth grinding surface with nicely rounded edge. Max. surviving ht. 40mm	
10310	PS	2825	Upper, c 30%. Edge damaged. A fairly small stone with an hour-glass shaped hopper. Ht. 70mm	62
11000	PS	420	Edge fragment, probably upper stone.	
1344	PS	2325	Upper, c 25%. A rather flat stone with a	63

3				damaged edge. The cupped hopper has no feedpipe. The grinding surface is flat. Ht. 82mm.	
15490	PS	3250		Upper, c 25%. The edge is badly damaged. It has a large conical hopper with no feedpipe. There is little sign of wear on the grinding surface. Original diam. c 360mm, ht. 110mm. Hopper diam. max. c 130mm, min. c 50mm.	64
15796	PS	730		Burnt fragment, with one smooth surface, other surfaces broken. This is presumably a quern fragment, but the surface is slightly convex, which is unusual for a puddingstone quern.	
17000	PS	640		Upper or lower fragment with part of the grinding surface and outer surface. Max surviving ht. 85mm	
17000	PS	1815		Upper fragment, iron stained and probably burnt. It has a large conical hopper with no feed pipe. There is damage to the edge.	55
17201	PS	1200		Chunk, and two joining chips of a burnt upper or lower stone. Part of the grinding surface survives, and possibly part of the outer surface. Max. surviving ht. 82mm	
20334	PS	248		Lump with no worked surfaces, but signs of weathering. This may be an erratic, rather than a piece of quern.	
20369	PS	610		Burnt fragment, with part of the grinding surface	
21615	PS	76		U/L. A small fragment with part of the grinding surface, and the very edge of the central hole, diameter not measurable.	
23001	PS	200		Burnt fragment with part of the grinding surface and outer face.	

Lava Querns

Con.	Stone type	Wt. (g)	SF	Description	D. no.
400	L	29	SF214	Lump	
408	L	52		Nine scraps.	
524	L	29		One scrap.	
550	L	2		Three scraps.	
2246	L	12	SF213	Crumbs	
2286	L	14	SF215	Three small lumps	
2356	L	555	SF115	Upper stone fragment, plus crumbs. Surface has mostly flaked off. The grinding surface is grooved and worn. There is a shallow kerb, with a possible handle seating comprising a shallow hole in the top of the kerb, with the stone broken across a second hole 25mm away. Hole depth c	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				8mm, diam. 8mm. This might just be where inclusions have fallen out of the matrix. **Thickness**	
2360	L	266	SF209	Six lumps and crumbs	
3631	L	548	SF171	Very fragmented, c 30 lumps and crumbs. Worn grinding surface. T 30mm	
3631	L	76	SF171	Three fragments. T 30mm	
3665	L	1600	SF216	c 10 fragments and lots of little bits.	
3766	L	180		Ten lumps and crumbs	
3812	L	11		One fragment	
4000	L	122		Fragment, possibly from upper stone with kerb. T 50mm	
4000	L	5500		Upper stone, c 50%. Standard form, with a kerb 45mm wide. The top has grooved panels, and the edge has vertical grooves. The grinding surface is partly eroded, and may have been pecked. The stone has broken across the handle hole through the kerb. The surface of the hole, and an adjacent area on the inside of the kerb are very smooth, probably wear caused by the handle. The hopper edge is very thin, with a large diameter, giving a grinding surface that is only 13-14cm wide around the hopper. Max. T at edge 68mm. **Diam.**	65
4005	L	228		Two fragments. Max. T 32mm	
4007	L	530		Edge fragment, upper stone with no kerb surviving (may have had a kerb originally, cf stone from 20093). Grinding surface grooved, other surfaces eroded. T at edge 34mm, D 360mm.	
4015	L	244		Lower edge fragment, no surfaces. T 31mm	
4020	L	398		4 joining fragments, probably upper stone. Smooth grinding surface, other surface eroded. Max. T 44mm	
4315	L	84		Lump	
4537	L	112		Two lumps	
4758	L	90		2 scraps, eroded, no full thickness	
5146	L	236		Nine fragments and crumbs	
5159	L	28		Lump	
5228	L	66		Five lumps, probably all one piece	
5427	L	950		Upper fragment, surface eroded. There are traces of a low kerb 50mm wide. T. at edge 50mm	
5494	L	780		Upper edge fragment, plus 2 chips, probably from the same stone. The surfaces are eroded, but it probably had a low, wide kerb. T. at edge 50mm	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
5543	L	680		Upper stone edge fragment with a high kerb, 32mm wide and c 26mm high. Surfaces eroded. T at edge 68mm	
5597	L	214		4880/7980 Six lumps, probably all one piece.	
5601	L	14		Lump	
5602	L	140		Lump	
5603	L	34		Lump	
5603	L	378		Fragment, probably lower. Worn pecked grinding surface, other face irregular and eroded. Max T 32mm	
5607	L	14		Lump	
5693	L	48		Fragmented lump	
5761	L	414		Eight lumps and crumbs. Max T 36mm	
5761	L	450		Fragmented piece of upper stone, T 45mm	
5768	L	5		Five scraps	
5804	L	780		Lower edge fragment, no surfaces, parallel sided. Max T 21mm.	
5804	L	40		One fragment	
5841	L	12		Seven scraps	
5843	L	268		5 fragments plus crumbs. Max. T. 21mm.	
5877	L	74		BS957. Six lumps and crumbs	
5948	L	700		Ten fragments and crumbs from the edge of an upper stone, with a grooved edge and worn grooves on the grinding surface. The top is eroded. T. at edge 65mm.	
5951	L	12		1 piece	
5981	L	1100		Two fragments, probably from the same lower stone. The grinding surface is worn, and was probably pecked. The edge and underside are eroded. T at edge 30mm	
6000	L	150		Fragment. T 41mm	
6048	L	92		10 scraps, eroded, no full thickness	
6117	L	30		7 scraps	
6153	L	82		Fragment with grooved grinding surface. T 25mm	
6170	L	242		Eleven fragments and crumbs, probably all one piece. The grinding surface is grooved. Max. T 38mm	
6172	L	124		Fragment in poor condition. There are traces of grooves on the grinding surface. T 31mm	
6203	L	668		In poor condition. 20 fragments, probably all from the same stone, probably a lower. Parallel faced, with a pecked grinding surface and a slightly irregular underside. T 32mm	
6271	L	840		Fragments, probably all from the same lower stone, with a harp dressed grinding surface. Max T 32mm	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
6306	L	38		BS 2109 Six lumps	
6367	L	621		Joining fragments from a lower stone edge, with an angled grinding surface. There are traces of grooves on the grinding surface and edge. T at edge 30mm, max. T 36mm. Diam. C 570mm	
6418	L	44		Two lumps	
6557	L	554		16 eroded lumps, plus some crumbs. One piece has worn grooves. **Period II A**	
6584	L	208		Joining fragments, probably from a lower stone. T 21mm	
6655	L	246		Fourteen fragments and crumbs.	
6742	L	14		Lump	
6742	L	146		Six fragments	
6790	L	234		Ten fragments and crumbs	
7031	L	5		One fragment	
7071	L	93		Twelve scraps.	
7086	L	48		Four lumps	
7086	L	3450		Very fragmented, probably one stone. 26 fragments and crumbs, including an upper edge. T at edge 61mm	
7098	L	14		1 fragment	
7103	L	92		Lump	
7123	L	34		Lump	
7131	L	444		Upper edge, 3 fragments and crumbs. Grooved grinding surface and edge. T at edge 61mm.	
7448	L	142		Four lumps plus crumbs	
7453	L	7		Two scraps	
7598	L	194		21 fragments. Worn grinding surface, no full thickness	
7681	L	408		Upper edge, fragmentary. There does not appear to be a kerb. The grinding surface is angled, and there are grooves on both faces and the edge. T at edge 46mm	
8000	L	156		Three lumps	
8000	L	805		Upper edge fragment with low kerb 40mm wide. Surfaces eroded. T at edge 59mm, min. T 18mm. Diam. C 350mm.	
8093	L	20		One fragment	
8094	L	52		Two lumps	
9004	L	270		Very eroded lump and small fragments, possibly an upper edge. Max T 45mm	
9004	L	33		4 scraps	
9298	L	72		2 lumps	
9388	L	238		Fragment of parallel sided stone, surface obscured. T 26mm. **Period II B**	
9427	L	340		Six fragments of decayed stone, with no surfaces surviving. Includes a probable lower	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				stone edge fragment. T at edge 51mm.	
9428	L	64		Fragment, T 26mm	
9444	L	22		Six small lumps	
9644	L	338		Joining fragments of upper or lower stone. T 35mm.	
9715	L	6		1 scrap	
10000	L	510		Four fragments plus crumbs. Worn, grooved grinding surface. Max. T 37mm.	
10031	L	108		c 25 decayed crumbs	
10104	L	46		Lump	
10104	L	104		Fragmented lump, grooved grinding surface. T 24mm	
10141	L	488		Lower stone edge fragment. Grooved edge, worn grooves on the grinding surface. Parallel faced. T 36mm	
10145	L	564	SF2205	Very fragmented, probably one piece originally. No full thickness	
10238	L	110		Lump. **Period II B**	
10296	L	164		15 fragments, probably from two different stones. One is 26mm T.	
10337	L	140		BS1527 Six fragments and crumbs. The grinding surface was grooved.	
10379	L	42		2 lumps	
10496	L	18		5 scraps plus some crumbs	
10498	L	38		Fragment, T 30mm	
10516	L	30		Lump	
10534	L	34		BS 1537.1 Two lumps, plus crumbs	
10539	L	216		Eight lumps, probably all the same stone. Grooved surface. Max T 32mm	
10642	L	32		Lump	
10654	L	1705		Two fairly large, eroded pieces, probably from the same stone. Possibly part of an upper, with a trace of the kerb. T 56mm	
10683	L	220		Five fragments, one with a ?grooved grinding surface. Max. T. 40mm.	
10800	L	268		5070/8010. Upper fragment with kerb. Surfaces eroded. T at edge 41mm	
1080	L	306		Three lumps, plus small scraps. Max. T 34mm	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
10909	L	304		Lower? Stone, 2 joining fragments. Grinding surface eroded, underside irregular. A thin, parallel sided stone. T. 22mm.	
10909	L	498		3 joining pieces and a chip probably from the same stone; U/L. Grooved grinding surface, no full thickness. Max. T. 44mm	
10987	L	3		Scrap	
11249	L	63		Four joining fragments.	
11441	L	9		Six small lumps	
13021	L	242		9 fragments, probably all the same stone. Max. T 37mm.	
13063	L	352		Upper edge fragment. The grinding surface is probably pecked, and there are traces of grooves on the edge. T at edge 53mm.	
13238	L	548		20 fragments and crumbs, probably all the same stone. Probably a flat lower, with a worn, pecked surface. T 25mm	
13351	L	22		6 scraps	
13392	L	420		Ten lumps. Max T 38mm	
13468	L	3		BS 1021 Crumbs	
13483	L	68		Six lumps	
13644	L	248		About 20 fragments plus crumbs	
13659	L	178		Fragment, with one very smooth surface, other face eroded. T. 38mm.	
13669	L	32		BS 1039 Six lumps, plus crumbs	
13724	L	774		Upper, twelve edge fragments, probably all same stone. Eroded. T at edge 40mm.	
13818	L	46		Six small lumps	
13851	L	652		Twelve lumps and crumbs. Max. T. 37mm.	
13851	L	2		Scrap	
14259	L	106		Quern fragment, with a very smooth and polished grinding surface. The underside is probably eroded. Max T 36mm. **Period II C**	
1452	L	15		BS 752.1 Crumbs	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
8					
14539	L	88		BS 754 Twelve lumps and crumbs	
14539	L	464		Upper fragment. T. at edge 50mm.	
14540	L	546		Four lumps, probably all same stone. Max. surviving T. 61mm. **Period II C**	
14564	L	700		Lower edge, c 10%, from a parallel faced stone. Some surface survives; the grinding surface was probably grooved originally, and is now highly polished in patches. There is a slight lip round the edge from use with a smaller upper stone. The grinding surface is slightly angled. T 20mm	
14726	L	56		Fragment, 20mm T	
15024	L	46		4 scraps	
15246	L	132		U/L, both faces probably grooved. T 38mm	
16073	L	86		Rather crystalline lump.	
16288	L	52		3 scraps from U/L 33mm T.	
17037	L	472		c thirteen lumps and crumbs	
17140	L	28		Fragment with smooth grinding surface. Th. 32mm.	
17209	L	374		Four fragments and crumbs. Max T 33mm. **Period II B**	
18021	L	18		Fragment, pecked surface, no full thickness	
18200	L	226		BS 1068 Quern edge fragment, in good condition, probably from an upper stone on account of its thickness. Grinding surface is grooved and well polished, edge is grooved. No full thickness, max. surviving T 58mm.	
20007	L	98		Parallel sided stone with smooth grinding surface, with some polish, other surface pecked. Good condition, possibly post-Roman. T 18mm.	
20009	L	394		16 eroded lumps, probably all one piece originally. Max. T. 45mm.	
20034	L	1150		Lower stone fragment, in good condition. Grinding surface grooved, underside pecked. T. 48mm.	
20063	L	400		Fourteen fragments and crumbs. Max T 31mm	
2009	L	194		2 lumps	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
20093	L	454		Three lumps. Largest is > 60mm thick.	
20093	L	730		Upper, c 10%. Grinding surface has worn harp dressing. The top is grooved, with vertical grooves on the edge. The kerb is very low, barely present, but delineated on its inner edge by a groove. Kerb 60mm wide, T. at edge 37mm, Diam. 340mm.	24
20186	L	330		11 lumps.	
21615	L	246		Wedge-shaped piece of dense lava with rather irregular surfaces. Possibly post-Roman. Max. T. 40mm.	
21700	L	130		Fragment with grooved grinding surface, other face slightly irregular. T 35mm	
23000	L	314		Fragment, probably upper stone. Max. T 45mm	
23001	L	88		Two chips, probably from different stones.	
23007	L	68		Two fragments from a lower stone edge. This is part of the same stone as the large fragment from 23008, but does not join. The grinding surface is pecked and worn, the edge grooved. Max. T at edge 45mm	
23007	L	68		Six lumps, probably not part of the lower stone from this context.	
23008	L	530		Five fragments from an upper stone with a kerb. Surface eroded. Max surviving T 44mm	
23008	L	920		Seven eroded lumps, possibly part of the upper fragment from this context.	
23008	L	1400		Upper fragment with an eroded kerb and grooved panels on the top. The grinding surface is probably pecked. T at edge 68mm, min T 22mm. Diam. C 360mm	
23008	L	4135		Five joining fragments of a lower stone, c 25%. The grinding surface is pecked, and there are grooves on the edge. The underside is irregular, and probably eroded. The central hole perforates, diam. C 15mm. T. at edge c 42mm, T. at centre 53mm, Diam. 396mm. (Note pieces of same stone from 23007)	66
23010	L	80		Lump	
23010	L	214		Fragment, probably an upper stone edge. T 53mm	
2303	L	100		2 joining chips	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
12312 3	L	382		15 lumps and crumbs. Max T 38mm	

Millstone Grit Querns

a) No re-use

Con.	Stone type	Wt. (g)	SF	Description	D. no.
3830	MG	625		Edge fragment, probably from upper stone. Fairly smooth grinding stone, probably pecked. Top and edge pecked. Max. T 37mm (Tr. 5 U/S)	
4000	MG	1745		Lower fragment. The grinding surface is worn, but not very smooth. It may have had concentric grooves originally. The underside is irregular. Max. T 50mm	
4464	MG	560		Fragment, probably lower stone. Grinding surface smooth, other face irregular. T 45-52mm	
4881	MG	655		Upper? Edge fragment. Grooved, worn, grinding surface, edge fairly well finished, other face smooth. T 43mm	
5148	MG	294		Fragment with worn grooved grinding surface, smooth other surface. T 58mm	
5159	MG	56		Small fragment with one smooth surface. T 27mm	
5266	MG	466		Quern fragment, one face smooth, the other irregular, probably due to damage. T 39mm	
5543	MG	665		Two joining pieces, upper or lower. Smooth grinding surface. The other face is partly smooth, but damaged. T 37mm	
5597	MG	960		Fragment with one rather roughly pecked surface, one slightly irregular surface. T 73mm	
6000	MG	1620		Upper stone edge fragment, with worn grinding surface, probably originally grooved. The edge and top are well finished, and there is a very slight kerb round the top, c 33mm wide. The edge of the central hole is probably present. T at edge 70mm, min. T 21mm. Diam. 400mm.	18
6316	MG	900		Lower stone fragment, with worn grooves on the grinding surface, and irregular underside. There is a slight lip round the edge, which would normally be taken to mean that it had been used with a smaller top stone. However, the grooves continue across the lip, which is polished, so the	25

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				lip formed part of the grinding surface. Diam. C 490mm. Max. T at edge 28mm.	
6419	MG	1154		Probably an upper stone fragment, with the edge of the straight sided central hole present. Harp dressed grinding surface, other face smooth and damaged. Max T 45mm, diam of central hole c 60mm	
6639	MG	462		2 joining pieces quern, both faces smooth. T 19-29mm	
6715	MG	625		Fragment, probably upper stone. Grinding surface rather irregular, probably due to erosion, other face pecked. T 53mm	
6742	MG	585		Smooth grinding surface with some polish, other face irregular	
7494	MG	126		Fragment with one smooth surface. The other face is irregular, and may be a more recent break or damage. Max T 23mm	
8512	MG	128		Fragment, grinding surface pecked and worn, other face fairly irregular. T 30mm	
9000	MG	840		Fragment of upper stone. The grinding surface is eroded. The top has a low kerb c 56mm wide, with traces of a concentric groove inside this. T at edge 40mm, min. T 32mm.	17
9042	MG	380		One worn face, probably grooved. Other face irregular, probably damaged. Max T 40mm	
10097	MG	152		Quern fragment. Grinding surface has worn grooves, other face rather rough. T 26mm	
10320	MG	218		Fragment with one flat face, unsmoothed, and irregular other face	
10336	MG	134		Fragment, both faces smooth. T 23mm	
10350	MG	176		Quern edge fragment. Surfaces eroded. T 50mm	
11000	MG	90		U/L fragment, smooth grinding surface, fairly well finished other surface. T. 36mm.	
11000	MG	226		Fragment with smooth surface, no full thickness. Max. T. 49mm.	
11413	MG	140		Lower fragment, edge of central hole present. Smooth grinding surface, other face fairly well finished. T 39mm	
13471	MG	836		Eroded lump with traces of use, possibly grooves, on one face. T. 92mm.	
14608	MG	92		Fragment, with two smooth faces. Probably a quern. T 29mm	
14608	MG	92		Fragment, with two smooth faces. Probably a quern. T 29mm	
1461	MG	805		Upper edge fragment, almost parallel faced.	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
4				Smooth grinding surface, with the edge and top well finished. T 40mm.	
15103	MG	120		Quern fragment, with one groove surviving on the grinding surface. T 27mm	
15150	MG	94		Quern fragment with traces of grooves on the grinding surface, other face fairly smooth. There is part of a piece of iron corroded on, probably a nail shaft.	
15150	MG	86		Fragment, grinding surface probably grooved, other face irregular. T 20mm	
15353	MG	118		Quern fragment, smooth grinding surface and fairly well finished underside. T 24-28mm.	
15566	MG	1685		Burnt, fragmented and rather crumbly. Five fragments, probably from the same stone, edges eroded. The grinding surface was either pecked or has worn grooves. The other face is eroded. Max. T 58mm	
16081	MG	346		Lower stone fragment with edge of the central hole. The grinding surface has worn broad grooves, the underside is fairly well finished. T at centre 39mm. **JOINS** a piece from 16213 (q.v.)	
16081	MG	810		Lower, c 5%. Wedge shaped profile, with a smooth grinding surface and underside. The edge is less well finished. T at edge 27mm, max. T 45mm. Diam. >340mm.	
16083	MG	630		Lower stone fragment, eroded. Edge possibly present. The grinding surface has pronounced grooves, possibly concentric. The underside is fairly well finished. Min T 31mm, max T 42mm.	
16182	MG	422		Upper edge, grinding surface smooth, edge damaged, very low, rounded kerb 35mm wide. T at edge 51mm, min. T 35mm	
16213	MG	280		Lower stone fragment from a slightly wedge-shaped stone. The grinding surface has worn broad grooves, the underside is fairly well finished. Max. T 37mm. This piece **joins** a fragment from 16081. The break is not recent. 16213 is a feature fill, 16081 a layer near, but not immediately above this feature.	
17000	MG	322		Upper fragment with part of the central hole. The hole has a groove round it on the top surface, 10mm wide, and 33mm from the edge. The grinding surface is smooth and the top well finished. Max. T 40mm.	
20007	MG	545		Coarse grained. Fragment from edge, probably lower stone. Slightly worn, pecked grinding	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				surface. The edge and other face are rather irregular.	
20007	MG	10350		Two pieces of lower stone, forming c 60% of the stone. The larger piece is nearly half the stone, and is in good condition. The second fragment is undoubtedly part of the same stone, but is in poor condition, very crumbly where it is freshly broken, and the base has eroded off, leaving it much thinner than the main piece. It does not appear to join. The grinding surface is harp dressed, and partly worn smooth. The edge is pecked and the underside partly smooth. Diam. 476mm.	30
20025	MG	294		More pebbly than usual. No full thickness, one face polished through use as a quern or reuse. Max. T. 50mm.	
20092	MG	424		Quern fragment, both faces smooth, some damage to one face. T 63mm.	
20203	MG	340		Quern fragment, smooth grinding surface, slightly irregular other surface.	
20705	MG	46		Fragment with one smooth face. T 21mm	
23087	MG	705		Lower stone edge. The grinding surface is worn, with a slight concentric groove 30mm in from the edge. The edge and underside are rather irregular. Max T 40mm	

b) Re-used as sharpening stones

Con.	Stone type	Wt. (g)	SF	Description	D. no.
50	MG	260	SF205	Coarse grained. Fragment with a smooth, slightly irregular surface, probably from a quern reused as a sharpening stone. Two edges also exhibit some wear.	
403	MG	458	SF198	Fragment, probably from a quern. It is roughly trapezoidal, with one broken edge, and all other edges and faces smoothed from use as a sharpening stone. 40mm T	
2246	MG	414	SF212	Probably lower stone. Grinding surface very smooth and slightly dished, probably through reuse as a sharpening stone. 45mm T	
2925	MG	494	SF193	A chip with a smooth face, probably a quern fragment reused as a whetstone.	
4000	MG	805		Upper? Fragment, probably with the edge of the central hole. Reused. One face is smooth and	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				dished, the other well finished, probably the original top. It has one straight edge. C 150x95mm. Min. T 21mm, max. T 40mm.	
4000	MG	1105		Pink millstone grit. Three joining fragments upper stone edge, with low kerb 40mm wide. The grinding surface is smooth and slightly dished. The edge is pecked and the top fairly well finished. The edge of the grinding surface has little nicks at intervals, possibly reuse. T at edge 49mm, min. T 24mm. D 414mm.	16
5160	MG	545		Reused, rather wedge-shaped, lump. Three faces are smoothed, and one corner. C 90x60x60mm	
5210	MG	126		Quern fragment, both faces smooth. There is slight wear on one broken edge from reuse as a sharpening stone. T. 20-24mm	
5497	MG	1265		Lower stone fragment. The grinding surface is pecked in rough lines, with individual pecks c 15mm apart, and worn. The underside is rough. The edge, and perhaps the grinding surface, has been reused as a sharpening stone. Min. T. 32mm, max T 45mm	
5766	MG	458		Fragment lower? Stone. Reused as a whetstone. Surfaces smooth and undulating. Max T 48mm	
6008	MG	306		Fragment, both surfaces smooth. Probably a quern reused as a sharpening stone. T 36mm.	
6195	MG	294		U/L fragment with edge of central hole, diam. C 34mm. Reused as a knife sharpening stone. Surfaces smooth and undulating. Min T 17mm, T at centre 29mm.	
6268	MG	456		Probable edge fragment. The grinding surface has worn widely spaced grooves, the other face is smooth. Probably deliberately shaped into a rough rectangle c 70x60mm, and reused as a sharpening stone. The smooth edge may just be due to this reuse. There is a knife point sharpening groove on the edge, and the other face has been used as a whetstone. T 48mm	
7285	MG	478		Fragment of quern, reused as a sharpening stone. It has smooth, slightly dished faces with short grooves one two edges. One edge is smooth and slightly dished. Max T 48mm	
7448	MG	230		Fragment with one smooth face, other surface fairly well finished. Probably reused as sharpening stone. Max. T 47mm	
9299	MG	104		Triangular fragment, with two sides and both	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				faces used as a sharpening stone. One face is damaged. Side length 70mm, 57mm, 51mm. T 35mm (cf 10296)	
9317	MG	202		Fragment, probably from an edge. Smooth, slightly dished faces, reused as a sharpening stone, and a probable knife point sharpening groove on one face. T 16-25mm	
9376	MG	3625		Lower fragment, edge not present. Perforating central hole, diam. C 55mm. Grinding surface smooth, underside slightly irregular. It has been reused as a sharpening stone, with grooves on the grinding surface and nicks on the edge, and the edge of the hole. The grinding surface has been used as a whetstone, causing undulations in the surface. Two of the broken edges have been used for knife sharpening, and possibly the underside as well. The piece is now roughly rectangular, c 310x180mm. Original diam. >400mm, min T 30mm, max T 50mm.	20
10296	MG	54		A triangular fragment (cf 9299) with two sides used as a whetstone. Both faces are smooth. Side lengths 54mm, 50mm, 46mm. T 19mm	
10296	MG	242		Fragment, both faces smooth and slightly irregular. Probably a quern reused as a sharpening stone. Max. T. 41mm	
10405	MG	635		Medium grained millstone grit. Triangular slab, from the edge of a quern, deliberately reshaped. One apex has a groove across it, and one adjacent side has been used as a sharpening stone. Both faces are smooth, and have probably been used for knife sharpening. Max T 38mm, min T 30mm. Side lengths 131mm, 116mm, 107mm. Original diam. C 400mm.	
11000	MG	220		Fragment, with worn grooved grinding surface. The other face is smooth and slightly undulating, and may have been used as a sharpening stone.	
11000	MG	434		Fragment, probably from a quern originally, but reused as a whetstone. It has been shaped into a roughly rectangular block c 80x65, and 32mm T. One face (the original grinding surface?) and all the edges are smooth; the other face is pecked. Two sides and the top face have knife point sharpening grooves.	
12263	MG	366		Quern fragment, reused. Both faces are smooth and undulating. Min T 23mm, max T 39mm.	
15000	MG	5500		Well cemented millstone grit. Lower fragment with a perforating central hole, narrower at the	19

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				top. The grinding surface is grooved and the underside irregular. The edge is a regular curve, but may have been cut down from a larger stone, as it is rather unevenly chipped. The grinding surface has been reused as a knife sharpening stone, with a dished area, and point sharpening grooves. There is also a groove along part of the edge, which may have been a seating for a clamp rather than a sharpening groove. Hole diam. C 40mm, T. 55mm.	
15224	MG	1025		Upper or lower, with a small part of the original edge. Both faces are smooth and slightly dished from reuse as a sharpening stone. T at edge 51mm, min. T 37mm	
15637	MG	186		Smooth grinding surface, probably originally grooved, possibly reused as a sharpening stone. The other face is well finished. 30mm T	
16169	MG	570		Fragment from the edge of a lower stone, with a slightly irregular grinding surface, possibly caused by reuse as a whetstone. The underside is roughly pecked. Max. T 48mm	
23001	MG	262		A triangular fragment, possibly with the edge of the original central hole of the quern present. It has been reused as a sharpening stone, with all faces and edges smoothed, and one point sharpening groove. Max. T 38mm, side lengths 95mm, 90mm, 85mm.	
23010	MG	246		Fragment with a dished, smooth surface, probably used as a sharpening stone. Max. T 52mm	
24129	MG	110		Fragment, probably reused as a sharpening stone; there is part of a groove present. The probable original grinding surface is smooth, the other face slightly irregular.	

c) Re-used as rubbers

Con.	Stone type	Wt. (g)	SF	Description	D. no.
4000	MG	172		Fragment with smooth, rounded edge, smooth surface, convex towards the edge, and irregular other surface. Probably a quern reused as a rubber. Max. T 35mm	
4000	MG	364		Fragment with wedge-shaped profile. Both faces are smooth and slightly dished. Probably a quern fragment reused as a rubber. T. 16-	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				46mm	
4692	MG	585		Fragment, T 51mm. The grinding surface has worn grooves, possibly concentric, and a deeper groove, which is probably an original feature. The other surface is worn, but not very smooth, suggesting reuse as a pounder rather than a whetstone. There are some odd little grooves on the edge of this surface, with traces of a red substance in them. This might be just iron staining.	
16182	MG	282		Quern fragment, possibly reused as a rubber. Burnt. T 27-43mm	

d) Other re-use

Con.	Stone type	Wt. (g)	SF	Description	D. no.
5166	MG	735		Lower fragment with slightly dished, smooth grinding surface. The underside is irregular and the edge pecked. There may be marks from reuse on the edge. Max. T 35mm	
6142	MG	390		Quern fragment. The grinding surface has parallel grooves, and the edge of the central hole is probably present. There are two oblique striations across the bottom of the hole, probably from reuse. There is no full thickness. It has probably been deliberately cut into a rectangle, now with one corner missing. 88x54mm, max. T 43mm.	
6166	MG	735		Lower fragment with slightly dished, smooth grinding surface. The underside is irregular and the edge pecked. There may be marks from reuse on the edge. Max. T 35mm	
9317	MG	392		Fragment, surfaces eroded, both faces fairly smooth. One broken edge has probably been deliberately shaped into a curve, diam. C 90mm, but there are no other traces of reuse surviving. T 39mm	
10296	MG	432		Pink millstone grit. Probably originally a quern, but reshaped as a rectangular palette or rubber. Both surfaces and one edge are smooth. The profile is wedge-shaped. W. 90mm, surviving L 85mm, max. T. 40mm, min T. 19mm.	2
1100	MG	1865		Roughly rectangular fragment c 135x125mm, T	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
0				60mm. The (assumed) grinding surface is smooth, with a single well finished straight groove across it, 17mm wide. This does not look like a knife sharpening groove, but is presumably reuse of some kind. The other surface is irregular.	
11000	MG	266		A quarter circle, with the curved edge well finished, the other edges broken. One face is well finished. The diameter is far too small for this to be the original quern edge. It may be a door pivot stone. Max. T. 45mm	9
15006	MG	124		Fragment with one straight, smooth edge. It may have been deliberately cut into a rough rectangle. One face is smooth, the other natural. 70x62mm, T 17-22mm	
15566	MG	3855		Burnt, fragmented and rather crumbly. Three joining fragments and another piece probably from the same stone. This was a massive stone, max. T 99mm, with a grooved grinding surface, other face irregular. Perhaps a millstone? The largest block is c 125x110mm, and may have been deliberately reshaped.	
20093	MG	362		Very poorly cemented and crumbly. Three pieces from a thin ?quern. One face is smooth, the other eroded. It has probably been deliberately reshaped into a roughly rectangular slab c 125x75mm. Max. T. 22mm	
20819	MG	252		Roughly circular fragment with irregular faces, section roughly lenticular. This seems to have been deliberately shaped. Diam. C 90mm.	

Rotary Querns in Other Stone Types

Con.	Stone type	Wt. (g)	SF	Description	D. no.
4239	GN	760		Quern fragment? Lower stone? The grinding angle would have been steep. One face is smooth, with faint striations, possibly caused by grinding, the other was fairly well finished. T. 55-78mm. Identification (G.K.L.): weathered metamorphic gneiss, probably a glacial erratic.	51
5723	GS	536	SF3211	Reused quern fragment. Possibly part of a low bun-shaped upper; the only surviving feature is the perforating conical hole, probably the hopper. One face is rather irregular, the other (the	43

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				original grinding surface?) has been reused as a sharpening stone, and is partly smooth but irregular. Hole diam. c 20-42mm. Identification (G.K.L.): Glauconitic sandstone, Lower Greensand (Hythe or Folkestone Beds).	
6640	GS	505		Quern fragment with grooved grinding surface, other face eroded. Stone crumbly. Max. T. 48mm. Identification (G.K.L.): Glauconitic sandstone, probably Lower Greensand (Folkestone Beds).	44
8000	U	272		Well cemented gritstone, probably millstone grit series. A quern fragment, probably an upper stone. The grinding surface has worn grooves, the other surface is grooved but unworn. T 34-48mm	
8196	GS	328		Fragment, possibly from the lower stone of a quern with concentric grooves . Flat, worn surface, damaged, with a groove running parallel to the edge, 25mm in, and traces of others further in. The edge is slightly chamfered, and the other surface rather irregular. Max. T 38mm, T at edge 24mm.	
9425	U	15500	SF1558	Pebbly conglomerate, as SF5896 (15087). 2 joining pieces forming c 60% of a lower quernstone. The central hole perforates, and has a slight hourglass shape. The grinding surface has worn harp dressing, and the underside is roughly flat. A very small area of the rounded edge survives. The rest of the edge may have been deliberately chipped away. T. at edge 48mm, T. at centre 95mm, diam. 480mm.	40
10296	PM	2160	SF3473	Four joining pieces of upper stone. The surfaces are eroded and irregular, and the edge is probably missing. The central hole is almost straight sided, and there may have been a slight collar round it (this may simply be a product of erosion). Hole diam. 48mm, T. at centre 38mm, max. surviving diam. C 390mm. Could this be a **table top** rather than a quern? Identification (G.K.L.): Purbeck marble.	41
10800	S	466		5070/8010. Fine grained, soft, yellow sandstone. A slabby, squarish fragment, probably utilised, and possibly from a quern. One face has two possible grooves. c 95x80mm, T 13-41mm	5
11000	U	348		Pebbly quartzitic sandstone, as 15087. Fragment from the centre of an ?upper stone.	46

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				Pecked grinding surface, other surface fairly well finished. There is a hint of a very shallow hopper, forming a band c 25mm wide round the hole, which has a rounded edge. Max T 32mm, T at edge of hole 24mm.	
12346	GN	510		Upper fragment, large hopper with flat rim. Sussex form? Grinding surface grooved and worn, well finished top and edge. T. at edge 66mm, min. T. 33mm. Identification (G.K.L.): Gneiss, possibly a glacial erratic.	45
15087	S	494		A quern fragment, probably an upper, with a grooved grinding surface. The other surface is fairly roughly finished, but may have part of a kerb. Max. T. 45mm. Identification (G.K.L.): Pebbly sandstone, possibly the Sherwood Sandstone Group (formerly known as the Bunter Pebble Beds). These pebbly units outcrop extensively in the West Midlands, and extend down into South West England.	42
17037	B	20		A small chip with a flat, worn face, probably with worn grooves. Identification (G.K.L.): Basalt. Basaltic rock fragments are not common in the glacial drift, and a source in mainland Europe is likely, such as the Rhineland area.	
20034	GS	2550		A massive fragment, which is surely from a millstone. The grinding surface has worn grooves, the other face is irregular. The edge appears to have been reshaped – it is roughly chamfered top and bottom, and crudely finished. T. 95mm. Identification (G.K.L.): Glauconitic sandstone, probably Lower Greensand (Folkestone Beds).	67
20537	S	124		Medium grained sandstone. Fragment with two smooth faces, possibly from a quern. T 21-32mm	

Whetstones

Con.	Stone type	Wt. (g)	SF	Description	D. no.
20320	GS	61	SF7520	Whetstone, similar to some of the Canvey whetstones. No full thickness, rectangular section. One end is broken, but has a groove across it which may be deliberate, and contains possible mineralised material, which may be wood or bone. The green stain on the broken	37

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				face is probably due to contact with copper alloy, although there are no copper alloy objects or coins from the context. L. 78mm, W. 25-27mm. Identification (G.K.L.): Calcareous sandstone, Lower Greensand (Hythe Beds?)	
4690	S	52	SF1949	Whetstone in rather soft, fine-grained sandstone. Rectangular section, with traces of 'manufacturing grooves' on one side, mostly worn away. One end finished, other broken. One face has a point sharpening groove, and the edges are slightly bowed through use. 68x24x15mm . Identification (G.K.L.): Glauconitic sandstone. Potential sources include Kentish Ragstone (Hythe Beds, Lower Greensand)	31
5148	S	33	SF1816	Whetstone fragment in medium grained sandstone. Broken both ends, rectangular section. It has 'manufacturing grooves' top and bottom on one edge, and probable point sharpening grooves. There is slight dishing on one face. It has been used, but the corners are still sharp. 47x19x15mm. Identification (G.K.L.): Lithic sandstone, Upper Carboniferous (Millstone Grit Group or Coal Measures).	32
6008	S	21	SF1071	Whetstone fragment, broken at both ends. Well made, oval section. 38x22x13mm. Identification (G.K.L.): Micaceous sandstone/coarse siltstone, possibly early Palaeozoic, possibly from South-west England, Wales or Scotland.	33
10498	S	24	SF7018	A whetstone fragment with no complete thickness, broken both ends. Section probably sub-rectangular. L. 47mm, W. 32mm. Identification (G.K.L.): Lithic sandstone, Upper Palaeozoic, probably Millstone Grit Group or Coal Measures.	34
10891	S	40	SF7609	Whetstone or sharpening stone fragment. A slabby piece with only one smoothed edge. There are four short nicks along one edge. 42x35mm, T. 9-12mm. Identification (G.K.L.): Micaceous very fine sandstone, Upper Palaeozoic, probably Millstone Grit Group or Coal Measures.	13
14540	S	34		Fragment, probably part of a whetstone with a sub-rectangular section, in a fine grained sandstone. No full thickness, W 41mm	
2075	S	42	SF752	Whetstone, broken at both ends. One face and	38

Con.	Stone type	Wt. (g)	SF	Description	D. no.
2			9	the edges are smooth, the other face is slightly rough, but has a groove along one edge. One edge has a manufacturing step on one side. L. 76mm, W. 24mm, T. 5mm. Identification (G.K.L.): Lithic sandstone, probably Millstone Grit Group or Coal Measures.	
24219	S	286	SF8056	Fine grained sandstone. A complete, irregularly shaped whetstone with uniform patination. It was probably a natural pebble which has been worked into a roughly twisted, almost symmetrical dumbbell shape, with partly smoothed cut lines present and other areas of wear. A very curious stone. L. 168mm, W. c 48mm, T. c 26mm.	8
15614	U	26	SF7161	Probably a natural pebble, hard stone, probably used as a whetstone. The ends are rounded and the section rectangular. The sides are slightly more polished than the faces. 43x18x13mm.	35
17000	U	20	SF6973	Probable natural pebble, a thin finger shape with a rectangular section, possibly used as a whetstone. 53x13x13mm	36
4777	S	68	SF4154	Hard sandstone. Probably a natural pebble, used as a whetstone. Rectangular section, both ends rounded. One edge is bowed. L66mm, W 28-30mm, T 16mm.	12
5305	U	57	SF1326	Sarsen? Pebble fragment, probably deliberately trimmed to give a neat rectangular section. One end is natural, the other broken or cut. Both the 'natural' faces have probably been used as a whetstone; the edges are unused. 63x23x17mm.	11

Sharpening Stones

Con.	Stone type	Wt. (g)	SF	Description	D. no.
401	MG	430	SF49	Triangular fragment. One face and two edges are smoothed through use as a whetstone, and there is a point sharpening groove on one face. T 41mm	
2380	MG	2125	SF121	Roughly rectangular block, with no sign of use as a quern. Both faces and the two long edges have been used as sharpening stones. 142x55mm, W 90-160mm	
1200	MG	340		Sharpening stone; roughly rectangular, with all	3

Con.	Stone type	Wt. (g)	SF	Description	D. no.
0				faces utilised. Fives sides are roughly flat; the sixth is more irregular. There are knife sharpening grooves present. c 550x680x50mm. Possibly not originally part of a quern.	
20348	MG	710		Roughly rectangular lump, with no trace of original use as a quern. Five faces have been smoothed through use as a rubber or sharpening stone. c 85x70x60mm	
5340	S	144		Fine grained sandstone, possibly greensand. Two fragments with eroded flat surfaces. Possibly used as a knife sharpening stone. T. 28mm	
5434	S	426		Yellow sandstone. Fragment with striations on the surface, possibly due to use as a whetstone, but possibly just natural weathering.	
6418	S	684	SF8180	Well cemented greensand? An irregular block with six smoothed facets, other surfaces irregular. One surface is dished. This could be roughly shaped building stone, probably with secondary use as a sharpening stone. c 107x80x73mm	
8094	S	158		Rather crystalline off-white sandstone. Sharpening stone, roughly triangular in shape. It has one smooth, slightly dished face, and two smoothed edges. The underside is irregular. c 65x60mm	
9028	S	525		Medium grained sandstone. Roughly triangular fragment with two smoothed surfaces at an angle to each other. Probably a rubber or sharpening stone. c 130x90x50mm	
11414	S	248		Possibly the edge of a saddle quern, it has been used as a sharpening stone. It has one smooth, slightly dished surface. The underside is partly irregular but smooth, the edge partly smoothed. One broken edge has a possible knife sharpening groove on it (this *might* be modern damage). T. c 35mm, c 75x70mm. Identification (G.K.L.): pale pink, very fine grained, porous, non-calcareous sandstone. Possibly Triassic; Triassic sandstones outcrop extensively in the western portion of the UK from the Dorset coast, through the Midlands into Cumberland.	49
16081	S	124		Fine grained sandstone. A slabby fragment with eroded surfaces. The edge is smooth, and has possibly been used as a sharpening stone. c 77x70mm	
1616	S	522		Fine grained sandstone, surface eroded. The	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
9				fragment was possibly used as a whetstone, as one surface has two grooves across it which may be knife sharpening grooves.	
16187	S	350		A slab fragment, with the edge probably reused as a sharpening stone. The shape is possibly a segment of a circle, and it is possible that this was a decorative stone, possibly used in a building (probably not a quern). One face is very smooth, the other is smooth in patches. T. 25-31mm. Identification (G.K.L.): Quartzose sandstone, possibly Millstone Grit Group or Coal Measures.	7
16280	S	505		Quartzitic sandstone. A block with two smooth surfaces utilised as a sharpening stone. One face has a couple of knife sharpening grooves and the other has multiple grooves, both longitudinally and at an angle across the face, and nicks on the edge. c 80x65x50mm	
21973	S	188		Quartzitic sandstone. A slabby fragment c 60x45x32mm, with one face and probably the end used as a whetstone. Probably a local pebble	
3743	T	322	SF181	Slabby fragment, roughly rectangular. The underside is natural. The other surface is flat, with polish on the surface. It may have been used as a whetstone. T c 30mm, W 55-88mm, L 145mm (broken).	

Rubbers (Not illustrated)

Con.	Stone type	Wt. (g)	SF	Description
2628	S	394	SF135	Fine grained. Part of a rubber formed from a natural, flat, rounded pebble. One face may have been pecked, the other is partly polished. C 105x85x32mm. Prehistoric context.
6790	S	318		Medium grained sandstone. Burnt pebble fragment, possibly used as a rubber. Period III.
8967	S	292		Medium grained sandstone. Fragment with eroded surfaces. One small smooth patch survives, probably the result of abrasion. Possibly used as a rubber?
10296	S	178		Pebble fragment in quartzitic sandstone, possibly used as a rubber.
4540	SN	256	SF4151	Sarsen pebble, possibly utilised as a rubber

Other worked stone

Con.	Stone type	Wt. (g)	SF	Description	D. no.
5964	CH	98		Lump c 56x40x30mm. There is possibly a pattern of incised lines on one flat face. Or could this be a fossil?	4
10877	CH	266		Piece of chalk with most of surface surviving. It appears to have been crudely shaped, with possible cut marks visible. It is irregular, and does not appear to be a representational piece, so is presumably just a piece of building stone. c 68x75x50mm	
10361	GS	820		Lump with one roughly flat face, no other working	
16333	GS	224		Fragment, possibly with eroded, tooled, flat face.	
14201	GT	47	SF5540	Probably millstone grit. A truncated cone with a depression in the irregular top. Possibly an unfinished or broken weight. Diam. 26-42mm, Ht. 27mm. Discarded	14
3766	MG	170		Well cemented grit. Chip, no original surfaces	
5476	MG	62		Chip with no original surfaces	
8000	MG	515		Lump with roughly flat, but unsmoothed surface, with no sign of original use or reuse. Max. T 50mm	
10310	MG	412		Very coarse millstone grit. Lump with no original surfaces	
15567	MG	228		Lump, all surfaces broken.	
16166	MG	416		Cuboid fragment with a flat surface, probably deliberately squared. No trace of original use as a quern. Max T 59mm. c 70x60mm	
18352	O	5	SF6480	Well polished, irregularly rounded, ?pebble.. Translucent pale violet with a purple streak. Could the high polish have occurred naturally due to water action? Identification (G.K.L.): Purple amethyst/quartz ?pebble. It is difficult to assign a specific source for this sample. Amethyst is a common component of mineral veins around the UK and mainland Europe. The sample may even have come from the local glacial drift.	15
16230	PM	1005		Slab fragment, one possible straightish original edge. The top is smooth, with slight damage (or possible deliberate carving?), and very faint striations on the surface. The underside is slightly irregular. T 30mm. c 175x110mm.	

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				DRAW	
				Identification (G.K.L.): Purbeck marble.	
4200	S	104		Medium grained sandstone, probably Pennine grit. Fragment with no full thickness, one smooth surface.	
5832	S	360		Fragment, which joins pieces from 5841 and 5864 (all the same pit) to form a slabby fragment with shaped edges. One face is smooth, the other broken. The shape is roughly a right angled triangle, with the hypotenuse forming a concave curve. The top face is chamfered on one edge, and there is a groove across the face, from this edge, running below the curved edge. Possibly architectural. Max. surviving T. 67mm. Identification (G.K.L.): Lithic sandstone, Upper Carboniferous (Millstone Grit Group or Coal Measures).	27
5841	S	372		See 5832	
5864	S	805		See 5832	
6214	S	1204		Fine grained sandstone. c 20 fragments and chips, all part of the same heat shattered stone. It is probably unworked, although it could possibly have been a saddle quern. The surface is eroded.	
7128	S	76		Slabby fragment with no full thickness. One face is smooth, with a smooth, straight edge. c 90x40mm. Identification (G.K.L.): Micaceous sandstone, probably Millstone Grit Group or Coal Measures.	
10994	S	4250		Yellow sandstone, probably greensand. Lump, possibly with one deliberately dressed flat surface.	
11000	S	54		Quartzitic sandstone. Fragment with one very smooth flat surface, no full thickness. Possibly utilised	
13316	S	82		Crystalline sandstone. A roughly semi-circular slice, with the curved surface pecked. Possibly part of an architectural element, but could be a fragment from e.g. a pestle. Discarded	
15233	S	238		Chip, possibly from a slab or palette. The flat surface is obscured by concretion. Identification (G.K.L.): Calcareous sandstone, possibly Hastings Beds of the Weald Clay.	
15982	SC	252		Fragment, possibly worked. It resembles a rim from a vessel, but may just be a natural stone broken along the bedding planes. The edge would be a bit straight for a vessel. Identification	6

Con.	Stone type	Wt. (g)	SF	Description	D. no.
				(G.K.L.): Schist, probably from Scotland.	
5597	SS	222		Fine grained grey-green stone with thin bedding planes. Fragment from the corner of a slab. The surfaces are eroded, but the original thickness was probably c 24mm. 114x53mm. Identification (G.K.L.): Siltstone, probably Kimmeridge Clay Formation.	
14539	T	300		Slabby fragment, possibly crudely shaped. Discarded	
17000	T	228		Tufa? Burnt. One smooth surface, possibly utilised.	
24315	T	1475		Tufa? A roughly rectangular slab, deliberately shaped, but with no other signs of use. Faces natural, sides more freshly broken. c 205x83x47mm	47
24315	T	635		Tufa? Possibly a reused quern fragment. It appears to have a central hole, but this may just be the way that it's broken. It has one straight edge. One surface is roughly flat, the other irregular. Max. T. 34mm. c 190x120mm.	48
5135	U	70		Fine grained stone; siltstone? with a slightly soapy feel (not identified). A slabby fragment with a well smoothed surface, back spalled. The face has two straight incised lines parallel to the edge, and there are also faint striations, parallel to each other, but at an angle to the incised lines. These scratches are ancient, and may be traces of tooling. c 58x60mm, max. surviving th. 14mm.	1
10405	U	515		Sandy limestone? Looks like decayed greensand, but without the black inclusions. A slabby fragment with eroded surfaces. It is almost identical in shape and size to the triangular piece of millstone grit from this context.	
20089	LS	2140		Crystalline shelly limestone? A slabby fragment, possibly with deliberate carving (although this might just be the effect of erosion). c 230x130mm, Max. T. 43mm.	26

Possible prepared building stone

Con.	Stone type	Wt. (g)	SF	Description
20092	FL	4975		7 unburnt flint nodules. Includes one large nodule (c 220x150x140mm, 3450g) which may have been

Con.	Stone type	Wt. (g)	SF	Description
				crudely shaped (kept)
15566	S	2220		Five fragments from a medium grained, pinkish sandstone boulder, poorly cemented, crumbly, burnt. It has possibly been roughly trimmed to shape for use as building stone, but is otherwise unworked. The original boulder was at least 120x120x100mm. Sample kept
12059	T	118		Fragment with two smooth edges and irregular faces, possibly used as building stone. c 32mm T.

Unworked stone

Not a complete list – see pro forma sheets for rest of unworked stone.

Con.	Stone type	Wt. (g)	SF	Description
10330	AMB	1	SF4675	Three fragments of amber. All surfaces present are either natural or broken, and there is no indication of working. They could possibly have been part of a large bead.
10877	CH	450		Seven fragments, no surfaces. Discarded
13071	CH	24		2 fragments, unworked. Discarded
14022	CH	16		BS 714. Three fragments. One is part vitrified.
15355	CH	34		One piece, unworked. Discarded.
20092	CH	348		One fragment, unworked. Discarded
20089	FL	258		Two pieces unworked burnt flint. Discarded
20092	FL	208		Four pieces, burnt, unworked. Discarded
20093	FL	6700		Twenty-three pieces, burnt, unworked. Up to c 130x100x75mm. Discarded
4188	GS	780		BS612. Nine fragments of decayed greensand. Discarded
5228	GS	1588		Three pieces, unworked
5603	GS	10		One fragment, decayed. Discarded.
6633	GS	3		BS2129 Decayed fragment. Discarded
10361	GS	100		Decayed, unworked. Discarded
10514	GS	76		Two pieces, unworked. Discarded
1108	GS	1752		Two fragments, rather decayed. Discarded

Con.	Stone type	Wt. (g)	SF	Description
6				
11305	GS	14		Fragment, unworked. Discarded.
11368	GS	12		Unworked chip. Discarded
13071	GS	96		3 pieces decayed greensand, unworked. Discarded
13471	GS	1010		Six lumps. Unworked, discarded
14551	GS	940		Lump. Discarded
15608	GS	172		Decayed greensand. 2 pieces, unworked, discarded.
16073	GS	96		Lump, burnt. Unworked. Discarded
16333	GS	372		Decayed slab with no signs of working. Discarded
20089	GS	1750		Unworked lump c 115x110x90mm. Discarded.
20092	GS	3725		Six fragments, unworked. Sample kept.
20093	GS	2135		Nine pieces, unworked. Sample kept.
6633	KR	2420		bs 2129. Lump, surface decayed. Sample kept.
20089	LS	800		Shelly limestone. Lump, probably unworked
20093	LS	575		Three chalk-derived pebbles. Unworked. Discarded
7150	Q	49	SF1143	Pebble fragment with no definite signs of use.
9064	Q	248		Unworked slabby fragment. Discarded
9385	Q	256	SF3272	Pebble fragment, no definite signs of use.
14002	Q	158	SF5429	Pebble fragment, no definite signs of use.
16250	Q	64		Pebble fragment, unworked. Discarded
20089	Q	478		Pebble, unworked. Discarded
20092	Q	1875		5 quartzite pebbles, possibly burnt (reddish). Discarded
20196	Q	80		BS 899. Water worn pebble. Discarded
4830	S	128		Natural pebble, quartzitic sandstone. Unworked. Discarded
5494	S	514		Quartzitic sandstone. Flat waterworn pebble. It would be tempting to see this as a quern rubber, but the

Con.	Stone type	Wt. (g)	SF	Description
				surface is uniformly patinated.
5518	S	916		Boulder fragment, unworked. Discarded
5518	S	600		Micaceous sandstone. Boulder fragment, unworked, discarded
5667	S	646		Quartzitic sandstone boulder fragment, burnt. Unworked, discarded
6462	S	346		Quartzitic sandstone pebble fragment, burnt, unworked. Discarded
6514	S	334		BS 2152 Sarsen boulder fragment, unworked. Discarded
6655	S	138		Quartzitic sandstone. Unworked lump. Discarded
9253	S	298		Probably burnt greensand. An unworked slabby fragment c 100x65x35mm. Discarded
9444	S	178		Fine grained sandstone. Two unworked pebble fragments, burnt. Discarded
9698	S	3000		Quartzitic sandstone boulder fragment. Scorched. Unworked. Discarded
10361	S	82		Quartzitic sandstone, pebble fragment. Unworked. Discarded
11368	S	22		Unworked pebble. Discarded
13054	S	120		BS 975.1 Pebbly quartzitic sandstone pebble. Unworked, discarded.
14551	S	350		Boulder fragment, unworked, discarded
15072	S	332	SF5737	Pebble, no definite signs of use.
15469	S	2660		Quartzitic sandstone, unworked slabby fragment. Discarded
16081	S	96		Quartzitic sandstone pebble fragment, unworked. Discarded
16237	S	2975		A rather flat boulder with eroded surfaces. Scorched, unworked. Discarded
17239	S	40		Quartzitic sandstone with black flecks. Greensand series? Unworked chip.
20022	S	920	SF7023	Quartzitic sandstone boulder fragment, probably not utilised.
20089	S	42		?Shelly sandstone. No surfaces, probably unworked
20089	S	3050		Fine grained sandstone. Large, flat water-worn pebble. Burnt. c 215x145x60mm. Discarded
20089	S	1650		Fine grained sandstone, probably greensand. Burnt and fragmented lump, unworked. Sample kept
4154?	SP	1264		**3 labels in bag - 4154, 4197 and 4153 - first two are fills of 4153** Eight fragments. Discarded.
5159	SP	600		Nine fragments. Discarded
5160	SP	418		Three fragments. Discarded

Con.	Stone type	Wt. (g)	SF	Description
5235	SP	1390		BS910. Three pieces. Discarded
5237	SP	1025		BS 911 Eleven lumps
5453	SP	126		2 pieces, unworked. Discarded
5601	SP	29		Two fragments. Discarded.
5603	SP	320		Six fragments. Discarded
5731	SP	136		Four fragments. Discarded
5768	SP	23		Fragment. Discarded
5936	SP	84		6 fragments. Discarded
5951	SP	7		Fragment. Discarded
5964	SP	37		bs 996. One piece. Discarded.
6367	SP	264		Three fragments. Discarded.
6874	SP	86		One burnt fragment. Discarded
7082	SP	41		One fragment. Discarded.
7084	SP	63		Three fragments. Discarded
8076	SP	576	SF1375	Fragment. (described as loomweight - SF record needs to be changed) Discarded
8737?	SP	344		**8737 on label, 8735 on bag - latter number is a feature.** Three fragments. Discarded
10361	SP	158		One burnt fragment. Discarded
10362	SP	456		Eight lumps, some burnt. Discarded
10396	SP	53		BS 1534 2 pieces. Discarded
10492	SP	218		One piece. Discarded
10514	SP	438		One lump. Discarded
10539	SP	630		Three pieces. Discarded
10751	SP	540		Two pieces. Discarded
11317	SP	45		Fragment. (CP9) Discarded.
11323	SP	248		Two fragments. Discarded
13050	SP	1115		One lump. Discarded
13238	SP	254		Four fragments. Discarded
13382	SP	1480		One fragment. Discarded
14446	SP	15		One piece. Discarded.
14879	SP	454		One piece. Discarded
1509	SP	24		Two pieces. Discarded

Con.	Stone type	Wt. (g)	SF	Description
15225	SP	16		BS473. Two lumps. Discarded
15233	SP	24		One fragment. Discarded.
15246	SP	502		Seven fragments, one burnt. Discarded
15518	SP	362		Four fragments. Discarded
15608	SP	30		2 pieces, unworked, discarded
15609	SP	2850		Thirteen fragments, some burnt, Discarded
15621	SP	124		Three fragments. Discarded
15869	SP	1113		Nine fragments. Discarded
16182	SP	80		One piece. Discarded
16230	SP	82		One piece. Discarded
16287	SP	23		1 fragment. Discarded.
16288	SP	1280		1 piece, burnt, unworked. Discarded
16333	SP	705		Two fragments. Discarded
16451	SP	20		2 lumps. Discarded.
20063	SP	760		Nine fragments. Discarded
20089	SP	15025		Oven. 9 large lumps and 16 smaller fragments, unworked. Described as burnt, but doesn't look particularly scorched to me. The largest piece is c 170x160x80mm. Discarded
20089	SP	40225		181 fragmented lumps and crumbs. The largest surviving piece is c 200x150x60mm. A sample was kept, including pieces with fossils on the surface.
20092	SP	703		14 fragments plus crumbs. Most burnt. Discarded
20092	SP	114		One piece, burnt. Discarded.
20093	SP	870		Four lumps, plus crumbs. Unworked. (discarded)
20093	SP	1425		Seven fragments. Discarded
2009	SP	622		Thirteen fragments. Discarded.

Con.	Stone type	Wt. (g)	SF	Description
3				
20107	SP	3375		Thirty unworked fragments, and crumbs. The largest piece is c 120x90x90mm. Discarded.
20107	SP	162		One fragment, discarded.
20114	SP	306		BS824 Four lumps. Discarded
20262	SP	27		One fragment. Discarded
23019	SP	386		One fragment. Discarded
26	T	218	SF217	Slabby fragment, unworked, with a small patch of green staining, probably copper alloy.
29	T	38	SF207	Unworked fragment
4000	T	246		Tufa? Crystalline. All edges broken. Used as building stone?
11368	T	174		Tufa? Unworked
17062	T	38		Chip
4027	U	268	SF308	Pebble, probably chert. Almost perfectly spherical, but with no definite signs of use.
4149	U	16	SF2847	Pebble fragment, no signs of use
4540	U	86	SF4152	Pebble fragment, no signs of use.
5579	U	108		Natural pebble. Discarded
5671	U	190		Very fine grained stone, possibly siltstone. Unworked, discarded
6438	U	1910		Three burnt, unworked large pebbles. Discarded
7145	U	98	SF2400	Pebble fragment, no definite signs of use.
9894	U	78		BS485 2 natural pebble fragments, unworked. Discarded
11305	U	90		Natural pebble. Discarded
13492	U	11500		Large lump of ferruginous pebbly conglomerate (indurated gravel), loosely cemented. It could have formed naturally on the site (a sort of 'super iron pan'), although most of the iron pan on the site is nowhere near as rock-like as this. From a hearth construction.
15233	U	758		Natural pebble. Discarded
16081	U	368		Decayed limestone? Unworked
20093	U	2725		Seven pebbles, unworked, some burnt. Discarded

Con.	Stone type	Wt. (g)	SF	Description
20093	U	5775		Four large unworked, rounded, natural pebbles, all about the same size, possibly scorched. The largest is c 155x120x90mm. (discarded)
20093	U	5985		Two pieces of ?shelly sandstone, unworked, burnt. The larger piece is c 220x150x90mm
23427	U	48	SF7852	Pebble fragment, probably not utilised. **39**