

Roman Ewell: a review of the querns and millstones and implications for understanding the organisation of grain processing

RUTH SHAFFREY

To understand how the production of flour was organised in a settlement it is necessary to study the tools (querns and millstones), structures (such as corn-driers, mills, bakeries and granaries) and environmental evidence (plant remains) that form the archaeological record. This article focuses on the main tools involved in the process – the querns and millstones – and draws in other strands of evidence. A total of 338 fragments were found at eighteen sites in and around Ewell, a roadside settlement situated on Stane Street c 21km from London, and these are described together with an analysis of their forms, lithology, dating and spatial distribution. Discussion then focuses on where the querns in the settlement were coming from and how this supply was organised before addressing wider points of interest such as whether grain processing was dominant in any particular area, to what extent grain processing was centrally organised inside the settlement and, significantly, what further research questions this analysis poses for Ewell and for the research agenda.

Introduction

During the Roman period Ewell was a settlement situated on Stane Street, the road that linked London to Chichester, some 21km south-west of London (fig 1). The first excavations to take place in the settlement were led by A W G Lowther in the 1930s, who was trying to locate the precise position of Stane Street. A number of excavations and surface finds occurred in the following decades in and around Ewell (details of which were summarised by Abdy and Bierton 1997) so that a considerable body of data has been accumulated. The status of Ewell does not seem to have been entirely resolved, but whether it is termed a ‘roadside settlement’ or a ‘minor town’, archaeological work in Ewell has produced a significant assemblage of finds worthy of further study. This report gathers together the quern and millstone evidence from all the sites for which the finds could be located, a total of 115 querns and millstones (338 fragments) from eighteen sites in and around Ewell. It draws together all the material to investigate how grain processing was organised.

Quantifying the data is not entirely straightforward. Lava has a tendency to break down into small crumbly fragments and this, combined with the fact that it is easily recognisable during excavation, typically results in a higher number of smaller fragments being recovered than of other quern materials. To quantify them, small undiagnostic fragments from a single context were counted as one quern. That this may result in an overestimate of original quantity should be borne in mind when quern ‘quantities’ are being discussed. Fragments of some querns were re-joined (eg fig 2), while fragments from single contexts that could not be joined but matched very closely in appearance were also counted as a single quern. A brief summary of the data is included here, but a more detailed list can be found in the archive held at Bourne Hall Museum, Ewell. ‘Small find’ numbers are used where they were allocated and Q numbers were allocated to some other querns. Where neither are present, unique ID numbers are given: all numbers correspond to those used in the archive.

Description and quantification

Of the 115 querns, 97 are from within the boundary of Roman Ewell (as defined by Poulton 2000) or very close to it and eighteen are from outside the settlement (table 1).

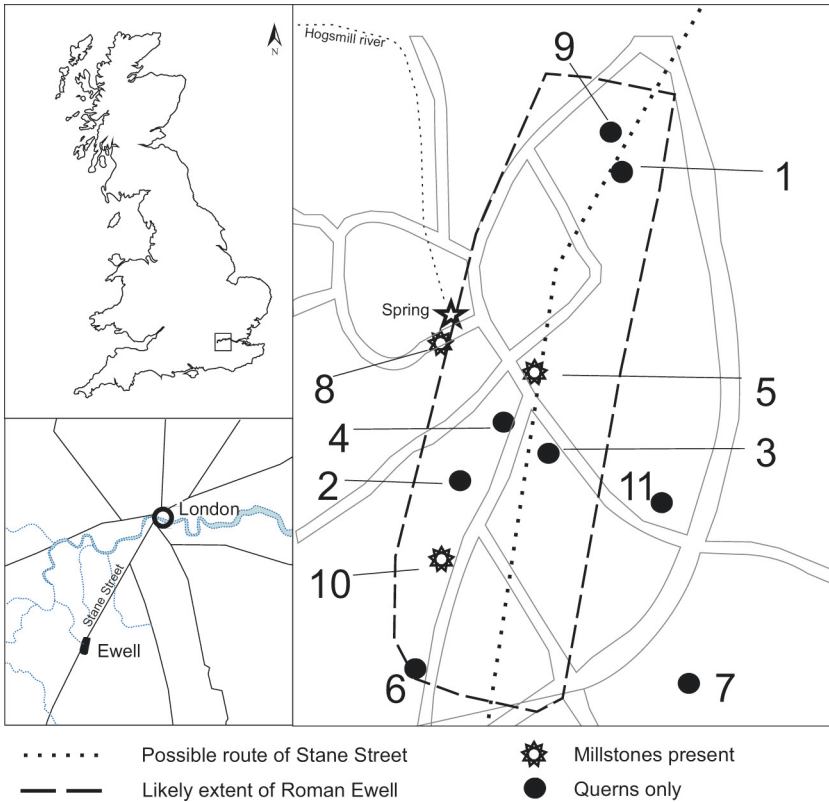


Fig 1 Map of Ewell showing quern findspots (after Poulton 2000). The numbers refer to locations listed in table 1.

EWELL

A total of 97 querns or millstones have been recovered from eleven locations in or very close to Ewell (fig 1). Geographically adjacent sites share a number for illustrative purposes and these numbers are shown in table 1.

Not all these querns can be absolutely confirmed as Roman but they are all from predominantly Roman period sites and those that were not stratified can reasonably be assumed to be Roman. All the stones are fragmentary and as a result, any analysis of forms is limited. A total of only 68 can be identified as being from rotary querns while fifteen are upper stones and two are lower stones. The disproportionate number of upper stones probably results from them being easier to identify. Five fragments are from millstones and two have been identified as being from possible millstones (table 1). Thirteen querns have measurable diameters and these range from 30 to 49cm, a typical range for Romano-British rotary querns.

The upper stones are of various forms including flat-topped (5), kerbed (4) and flat/angled discs (5). At least one of the lava querns has an elbow-shaped handle socket (ID 15196 from Hatch Warren). There is little correlation between lithology and form, except that all the kerbed querns are made from lava (ID 14644, 14696, 13713 and 14650 from Ewell Grove, Spring House, Church Meadow and St Mary’s Meadow respectively). The two lower quern fragments are too small for much to be determined about them except that they have pecked grinding faces and that one is fully perforated (St Mary’s churchyard 74–5, SF 1522).

Up to seven millstones have so far been found in Ewell. It is important to distinguish between rotary querns and millstones because the former were powered by hand, while

Table 1 All sites

Name	Map no (fig 1)	Quern	Rotary	Upper rotary	Lower rotary	Millstone	Rotary/millstone	Total	Site code	Reference
Church Meadow	1	1	11	4	–	–	–	16	CME13	Shaffrey in prep
Graveyard	1	–	–	1	–	–	–	1	EGY	Unpublished
St Mary's churchyard (No 5)	1	–	1	1	–	–	–	2	ECY00	Orton 2000
St Mary's Meadow	1	–	6	2	–	–	–	8	SMM77	Pemberton in prep a
Ewell Grove	2	–	–	1	–	–	–	1	EGE70	Pemberton 2011
Grove Cottage	3	–	2	–	–	–	–	2	GCE72	Pemberton & Harte 2011, 253
High Street	4	–	1	–	–	–	–	1	HSE94	Huson 2010
King William IV (KW68, KW69, KW77)	5	–	11	1	–	4	–	16	KWE	Orton 1997
Purberry Shot	6	–	–	1	–	–	–	1	PSE 39	Lowther 1949
Reigate Road	7	1	–	–	–	–	–	1	RDD 14	Shaffrey 2014
Spring House	8	–	5	3	1	–	2	11	SH91	Excavated by S Nelson and I West (EEHAS*); awaiting publication
St Mary's churchyard	8	–	1	1	1	–	–	3	SMC74-75	Pemberton 2015
St Mary's churchyard	8	–	1	–	–	–	–	1	SMC03	Pemberton in prep b
Stane Street	9	–	1	–	–	–	–	1	SMC71	Pemberton 1973
Tayles Hill	10	–	–	–	–	1	–	1	ETH32	Lowther 1935
Hatch Furlong	11	2	28	1	–	–	–	31	HFE06-09	Unpublished
Warren Farm (fig 5 only)	–	–	2	2	1	–	–	5	WFE95	Huson 1995
North Looe (fig 5 only)	–	–	8	2	3	–	–	13	NLE46	Cotton 2001
Total	–	4	78	20	6	5	2	115		

* Epsom and Ewell History and Archaeology Society

the latter required animal or water power and extra leverage. They represent a movement away from individuals producing their own flour to a centralised and industrialised process requiring greater levels of organisation and investment. Five are certainly millstones based on their diameters of 59cm or above (cf Shaffrey 2015). One may be a millstone based on the large size of a section of harped grooving on it (Spring House, Q14, identification: almost certain) and another on its unusual thickness in comparison to known quern fragments from the same site (Spring House, Q16, identification: possible). The five examples with measurable diameters demonstrate a restricted diameter range from 59cm (King William IV, Q12) to 72cm (King William IV, Q3) and all seven are similar in form with five being of the flat disc type, one of a very slightly angled disc type and one tapering slightly in thickness towards the centre. Two fragments from the King William IV site have a slight kerf around the circumference. None of the centres of the millstone fragments survive, so it is not possible to comment on the eye or rynd sockets and no other sockets were observed cut into any of the stones. There is no particular pattern to the dressing of the grinding surfaces, with three having harped grooving (eg fig 3), one general grooving, two being pecked and one having concentric grooves.

Although all the millstones are from sites with significant Roman activity, only four are from contexts that can be securely assigned to the Roman period – two from the King William IV excavations (Q1 and Q3, possibly from the same millstone) and two from Spring

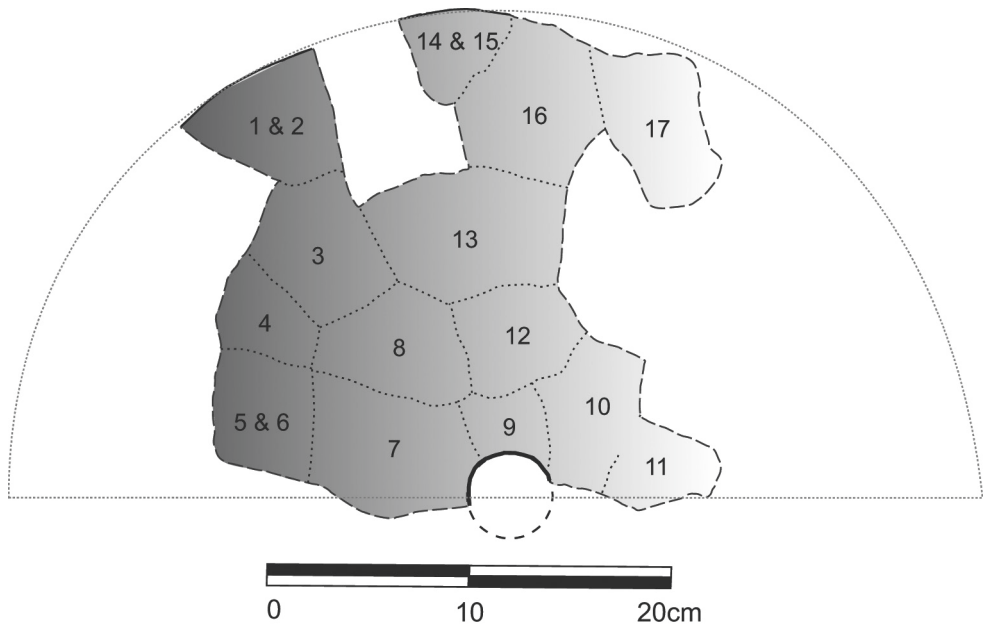


Fig 2 Reconstructed quern from Spring House (numbers represent individual fragments).



Fig 3 Quern fragment Q3 from the King William IV site with harped grooving.

House (Q14 and Q16). All are from contexts of late Roman date and although this suggests that a mill was operational in Ewell during the late Roman period, it is possible that there were also earlier mills.

EWELL ENVIRONS

The eighteen querns from the Ewell environs comprise four lower rotary querns, four upper rotary querns and ten rotary querns of indeterminate form (table 1; for location of sites see fig 5). All were recovered from contexts of Late Iron Age to early Roman date, and are thus likely to represent earlier quern use than those from within Ewell. Only one of the upper stones is complete enough for its form to be determined and this is of a flat-topped type with a lateral handle socket (ID 14682). Two of the four lower stones have partially perforated spindle sockets (ID 14669, 14677) but none is sufficiently complete for its overall form to be determined. The partially perforated sockets are indicative of the generally early date of both sites. No millstones were found at either site.

Lithology

The lithology of all the quern fragments was re-examined and in some instances changed from their previously published descriptions (for instance because Lodsworth Greensand had not been identified as a source for querns at the time). A summary of the stone types used for querns in and around Ewell is shown in table 2.

Table 2 Quern and millstone lithologies in and around Ewell

Lithology	Town	Environs	Total
Lava	65	2	67
Lodsworth Greensand	9	5	14
Greensand	2	7	9
Bargate Sandstone	2	–	2
Ferruginous sandstone	1	1	2
Sandstone	1	1	2
Millstone Grit	11	–	11
Old Red Sandstone	4	–	4
Millstone Grit/Old Red Sandstone	2	–	2
Sarsen	–	2	2
Total	97	18	115

All the major stone types known to have been used for Roman querns occur in Ewell except puddingstone, which is surprising given the relative proximity of Ewell to a possible quern source at Worms Heath (16km) and its occurrence close to Ashtead villa (Ellis 2016). The most commonly used stone type is lava, while greensand from Lodsworth and Millstone Grit from Derbyshire or Yorkshire both feature prominently. Old Red Sandstone is much less common, probably because of the easterly location of Ewell; the querns found here push the known distribution area of Old Red Sandstone querns further east than previously known (Shaffrey 2006, fig 3.1). Other types of stone include greensand (not closely provenanced), ferruginous sandstone (probably from a facies within the greensand) and Bargate Sandstone. The querns from the Ewell environs are made from various types of greensand, including that from Lodsworth and of ferruginous sandstone and sarsen.

Supply of querns and millstone to Ewell

Although it has not been possible to date all the querns because the details of their contexts of deposition have been lost, some general trends can be observed in the exploitation of different stone types (fig 4). Sarsen was used only at Warren Farm in probable Late Iron Age contexts. Ferruginous sandstone occurs only at King William IV, where it is undated, and at North Looe where it is of Late Iron Age date. Both stone types can probably be deemed

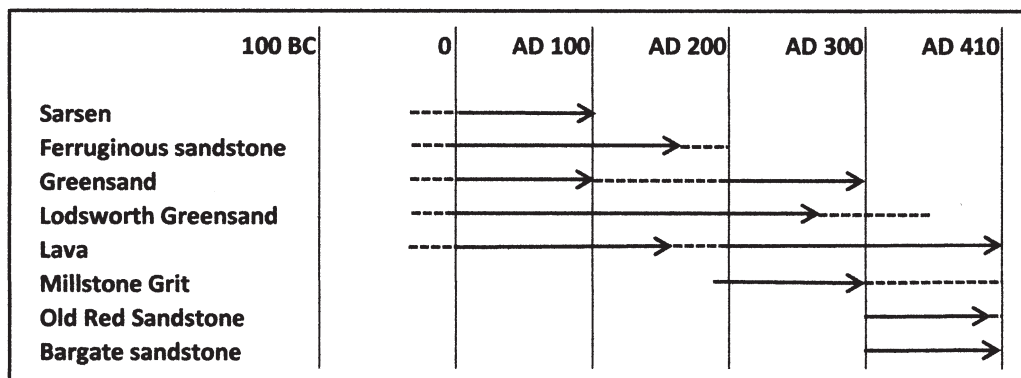


Fig 4 Use of different quern materials over time.

to be remnants of earlier quern manufacture. Greensand that is not from Lodsworth, or from the Folkestone Beds, is found almost entirely in Late Iron Age to early Roman contexts (also mostly at North Looe and Warren Farm). Some work has been carried out to identify other sources of greensand querns, but at present, the specific sources remain unknown (Cutler 2013). Lodsworth Greensand querns were deposited in contexts as late as the mid-4th century, but with a slight emphasis on the first two centuries AD.

In contrast, Millstone Grit, Bargate Sandstone and Old Red Sandstone appear to have been used only during the late Roman period in Ewell (but bearing in mind that only a few examples are closely dated). Lava occurs in contexts throughout the Roman period. Two fragments from Warren Farm were from contexts considered to be Late Iron Age, but with significant doubt having been cast on the use of lava in pre-conquest Britain (Fitzpatrick forthcoming), an early Roman date seems more likely. The vast majority of the rest of the lava is from late Roman contexts and was found at all sites except Purberry Shot where only a single quern was found, and at North Looe, which is primarily Late Iron Age. The chronology of lava quern use in Roman Britain requires significant further study. However, it seems unlikely that all the late querns here can be attributed to re-use and it is therefore probable that lava was used during the 3rd century and possibly the 4th century.

The pattern of millstone sources is slightly different. Ewell is located in an area already known to have been reached by three of the major millstone producers (Shaffrey 2015) and analysis of the millstones reveals that none of the minor quern producers made millstones for Ewell. There are three of lava (including the two 'possible' millstones), one of greensand, two of Millstone Grit and one of possible Old Red Sandstone or Millstone Grit. The lack of Old Red Sandstone millstones in the area suggests that the uncertain one is more likely to be Millstone Grit, something that would need to be checked with thin-section analysis. Despite the occasional use of greensand for millstones (as seen by one example here), the region was largely dominated by millstones of Millstone Grit and lava (Shaffrey 2015, fig 1) and these are also the most well used lithologies in Ewell.

With the collation of this data, the quern and millstone information for Ewell is now fully published and up to date. However, the lack of published assemblages makes a survey of the local area around Ewell difficult and a meaningful analysis of quern or millstone distribution would not be achievable without extensive museum research. However, a few conclusions on quern use in Ewell are possible and some comparison with other sites can be made. The overall impression is of a changing availability of quern sources over time. Certainly the ferruginous sandstone, unusual greensand types and sarsen were out of favour by the late Roman period (fig 5).

Ewell is not located on a river suitable for transporting heavy goods and so all millstones and querns must have been taken to the settlement along roads. The location of Ewell on

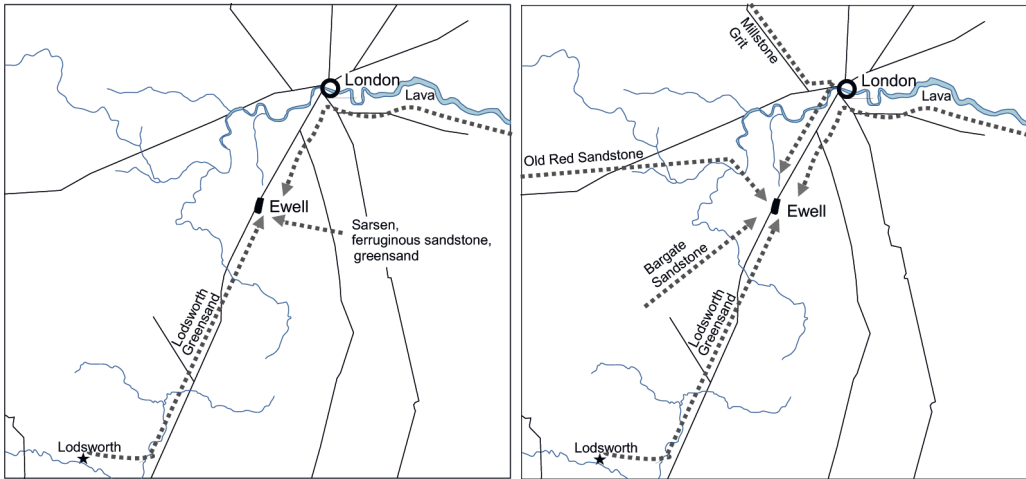


Fig 5 Maps showing early (left) and later (right) Roman quern sources and their suggested routes to Ewell.

Stane Street means that many items must have been taken through on their way to other areas, providing easy access and probably much choice. Lodsworth querns, for example, were probably obtained as they moved through the settlement along Stane Street on their northward journey to markets in the Thames Valley (Shaffrey & Roe 2011). The presence of Lodsworth Greensand in late Roman contexts, as well as in earlier contexts, appears to indicate that it remained in use longer in Ewell than in other settlements that were a similar distance from Lodsworth such as Silchester and Staines, where Lodsworth Greensand has not been found in such late features (*ibid*, 216). This may be a result of the location of the settlement on Stane Street.

Not all querns and millstones would have been purchased in Ewell as they were transported through. Millstone Grit and Old Red Sandstone querns are found only in later Roman contexts in Ewell, which is comparable to both Silchester and Staines. Old Red Sandstone querns are unlikely to have been taken through the settlement because they were not well used in this area, and may instead represent purchases made by one or more people travelling away from Ewell, perhaps to the Thames Valley where querns of this material were in common use. London, meanwhile, with the variety of goods that must have been available, was conceivably accessible within a day's travel. It is possible that the lava millstones were obtained in London as the main focus of distribution of these is along the river Thames and around the south coast (Shaffrey 2015, fig 1). The same may also be true of the Millstone Grit millstones, which show no evidence of having been distributed along Stane Street (*ibid*). Querns of lava and Millstone Grit may also have been purchased in London or perhaps in other nearer settlements. Croydon, some 10km to the east, for example, has produced querns of lava and sandstone together with extensive evidence for the parching of wheat during the 1st and 2nd centuries AD (Major 2011, 208–9; Taylor *et al* 2011, 191). Being slightly closer to London, Croydon may have had surplus lava querns available.

Grain processing in Roman Ewell

A combination of hand-powered rotary querns and mechanically-operated millstones indicates that grain was processed at various levels. Rotary querns would have been used in individual households and also in commercial establishments. Documentary sources indicate that Roman bakers often ground their own grain (as documented in the *Metamorphoses* of Apuleius) and bakeries may have had one or multiple querns set up depending on the amount of flour they required. By the same logic, brewers may have used one or more

querns to crush their malt. The recovery of a significant number of millstones (between five and seven) indicates that some of the grain processing was also carried out in an organised and centralised manner. The concentration of querns in and around Ewell is shown in figure 6.

There appear to be two concentrations of quern distribution. One of these is in the northern part of Ewell, where 28 querns have been found, and the other is in the central part of the settlement and just outside the town to the east where altogether 52 were found. These numbers may have been influenced by the extent of excavation, accurate identification on site, retention policies and the frequently occurring small quantities of lava at sites such as Hatch Furlong, but they are, nevertheless, an indicator of quern use. The recovery of many querns in the central part of Ewell is in keeping with the finding of millstones, six of which were from the same sites. Millstones were found during excavations of the King William IV site (fig 1: 5), at Tayles Hill (fig 1: 10) and at Spring House (fig 1: 8). None was found in the northern or eastern parts of Ewell or on a site outside the settlement and as millstones are unlikely to have moved very far from their original point of use, it seems likely that a mill was located nearby.

This mill was probably on the Hogsmill river, the source of which rises on the western side of the settlement and flows in a northerly direction away from it. During the 18th and 19th centuries mills used to produce gunpowder were positioned on the Hogsmill river (fig 6) just downstream of the spring (fig 1) (Gunpowder Mills 2008), so it is known that during

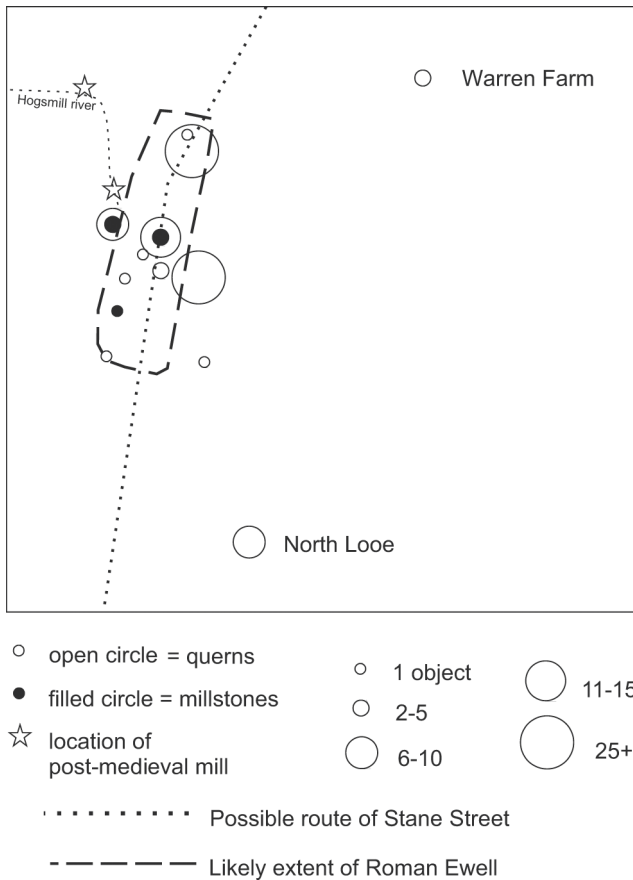


Fig 6 Map showing distribution of querns and millstones in and around Ewell.

the post-medieval period, the flow of the water was adequate to power a mill. Assuming that the river had a similar flow during the Roman period, one or more watermills could have been located just outside the western fringes of the town. Such a mill is the probable source of the millstones.

The presence of querns and millstones is usually correlated with the production of flour. This is not entirely unreasonable as wheat, barley and spelt had to be ground into flour to make bread or partially milled so that it could be used in stews (Dineley 2006, 56). However, these grains could also be partially germinated and the resulting malt mashed to produce liquid malt sugars that could be mixed with milk to make a malted milk drink, or boiled and fermented to make an alcoholic drink (*ibid*, 60). Spent grain, another by-product of malting, makes an excellent animal feed that is nutritious, slowly digested and is easy to store (*ibid*, 58–61) and it might have been used to feed the cattle represented by large quantities of bones found here (Orton 1997). Unfortunately, the archaeological evidence for malting is unlikely to have survived: grains will be found only if they are charred or waterlogged while the spent grain animal feed can survive only as husks in animal dung, and then only very rarely (*ibid*, 59). Analysis of the plant remains for the Ewell, Church Meadow report (Cowlard in prep) will hopefully provide another strand of evidence for what was being ground in the querns and mills of Ewell, but for now, it might tentatively be suggested that a combination of flour production and malt crushing was taking place.

Few structural remains in Ewell can be directly related to grain processing, but a structure on the King William IV site dating to the late 1st to early 2nd century was interpreted as a possible granary (Orton 1997, 96) while a structure from the following phase (AD 120–200) was tentatively interpreted as a malting barn. Both interpretations are possible in view of the high number of querns and millstones as the grain could have been stored here in the granary before grinding and wet germinated grain could have been aerated in a malting barn (Dineley 2007, 57). The grain could then have been dried in the mid-2nd century to mid-3rd century ovens also recorded on the King William IV site and interpreted as corn-driers (Orton 1997, 97). The postulated granary means it is plausible that grain was stored and dried here before being moved the short distance to the mill for processing. A link between the mill and the King William IV site might also explain the recovery of millstones here, which, when no longer of use, may have been moved to the King William IV site for re-use, rather than being discarded.

Conclusions

This overview of the quern and millstone fragments from Roman Ewell has provided some clues to how grain processing was organised in the settlement. Some of the processing was certainly centralised, possibly at a watermill on the western edge of the settlement. It is not yet clear where the products of this processing went after being ground, but the centralised processing may be viewed as supporting evidence for the idea that Ewell was a ‘gateway’ settlement that collected agricultural produce, in this case grain, processed it and then sent it on elsewhere or sold it within the settlement (cf Orton 1997, 118).

In addition to the mill, the number of rotary querns indicates that plenty of household and possibly small commercial processing also occurred. It is likely that people passing through the settlement on Stane Street and local tracks, or visiting a market, would have needed to eat, so bread would have been in high demand, as might malted milk or alcoholic drinks. Indeed, fragments of oven structure, which could plausibly have been used for baking bread, were found at Church Meadow on Stane Street (fig 1: 1) (Frank Pemberton, pers comm) alongside a significant assemblage of querns, while other sites with querns are also close to the probable route of Stane Street (fig 1: 3, 4, 9 and especially 5). Others may have been wishing to buy ready-ground flour or even animal feed. People living nearby may have visited the settlement for supplies or to make use of facilities as the occupants of nearby villas and farmsteads need not have necessarily ground all their own flour, produced animal

feed or alcoholic drinks. The excavations at the villa at Ashtead Common, for example, have recovered almost no querns. As well as the two pieces of puddingstone tentatively identified as possible querns, A W G Lowther recorded only one possible millstone (a photograph of which suggests its identification as a Roman millstone is dubious) and there are two querns in Guildford Museum with an Ashtead attribution, although they are now missing and this attribution is questionable (Lowther 1930, pl 3; David Bird, pers comm). If this lack of querns from Ashtead is real (and it is possible of course that querns might appear in further excavations there) then perhaps the occupants of the villa purchased their flour, ale, animal feed or all three at Ewell.

This analysis has clearly raised a number of questions that should form part of the research agenda for Roman Ewell. These include:

The Hogsmill river and the mill:

- If the existence of a watermill is assumed, where on the river might the mill(s) have been located?
- Did the river follow the same route during the Roman period as it does now?
- Can the power of water during the Roman period be ascertained and was it capable of driving millstones?
- Is there any evidence in the settlement for animal- or human-powered mills?
- At what date were the mill(s) operational? Unless mill structures are located, this will only be answerable if further querns and millstones are recovered from closely dated contexts.

Function of millstones and querns

- Is there any evidence of bakeries? Where were these located – near to the main road to catch passing trade? Are there any querns and millstones in association with bakeries?
- Is there other evidence for grain storage or drying?
- What was being ground in the mills and with the querns and for what purpose? Detailed analysis of charred and waterlogged plant remains may provide evidence for the production of malt, animal feed or other substances.

ACKNOWLEDGEMENTS

Thanks are extended to Jeremy Harte of Bourne Hall Museum and the Surrey County Archaeological Unit (SCAU) who kindly allowed all the querns for this study to be borrowed on short-term loan. Also to David Bird and Frank Pemberton who shared information from unpublished material and who commented on a draft of this paper. Thanks to Jon Cotton for sharing unpublished context information on the Hatch Warren querns and to the Hatch Warren project partners: The National Trust, Birkbeck, University of London, Epsom and Ewell Archaeology and History Society, Surrey Archaeological Society (SyAS) and SCAU. The author also acknowledges both Bourne Hall Museum and SyAS who financially supported this project. Especial thanks, however, are reserved for Nikki Cowlard of the Church Meadow Project, who not only suggested the idea for the research in the first place, but also kindly facilitated the financial support, tracked down the querns and paper records in the museum and SCAU, and commented on a draft of the text. All errors remain the responsibility of the author.

BIBLIOGRAPHY

- Abdy, C, & Berton, G, 1997 A gazetteer of Romano-British archaeological sites in Ewell, *SyAC*, **84**, 123–41
- Cotton, J, 2001 Prehistoric and Roman settlement in Reigate Road, Ewell: fieldwork conducted by Tom K Walls 1945–52, *SyAC*, **88**, 1–42
- Cowlard, N, in prep Excavations at Church Meadow, Ewell
- Cutler, L, 2013 Between a rock and a hard place – the development of querns in Iron Age Wessex, unpubl PhD thesis, University of Southampton
- Dineley, M, 2006 The use of spent grain as cattle feed in the Neolithic, in D Serjeantson & D Field (eds), *Animals in the Neolithic of Britain and Europe*, Neolithic Stud Grp Seminar Pap, **7**, Oxford: Oxbow Books
- Ellis, I, 2016 Worms Heath puddingstone fragments found at Ashtead. Could they be the remains of an early Roman quern? *SyAS Bull*, **458**, 14–15
- Fitzpatrick, A, forthcoming ‘The famous volcanic rock of the Eifel’: was it imported to Britain in prehistory? in R Shaffrey (ed), *Written in stone. Papers on the function form and provenancing of prehistoric stone objects in memory of Fiona Roe*, Southampton: Highfield Press
- Gunpowder Mills, 2008 Epsom and Ewell history explorer: gunpowder mills (<http://www.epsomandewellhistoryexplorer.org.uk/GunpowderMills.html>; accessed 8 December 2016)
- Huson, S, 1995 Stone artefacts, in G Hayman, An archaeological excavation at Warren Farm, Ewell, Surrey, SCAU unpubl client rep 14
- , 2010 The other finds in G Hayman, Excavations at 46–50 High Street, Ewell 1994, *SyAC*, **95**, 281–95
- Lowther, A W G, 1930 Excavations at Ashtead, Surrey: second report (1927 and 1928), *SyAC*, **38**, 1–17
- , 1935 Excavations at Ewell in 1934. The Saxon cemetery and Stane Street, *SyAC*, **43**, 16–35
- , 1949 Excavations at Purberry Shot, Ewell, Surrey. A pre-Roman and Roman occupation site, *SyAC*, **50**, 9–46
- Major, H, 2011 Small finds, in Taylor *et al* 2011, 208–9
- Orton, C, 1997 Excavations at the King William IV site, Ewell, 1967–77, *SyAC*, **84**, 89–122
- , 2000 Excavation in Ewell church yard, Ewell, unpubl summary rep (copy in Bourne Hall Museum, Ewell)
- Pemberton, F, 1973 A Romano-British settlement on Stane Street, Ewell, Surrey, *SyAC*, **69**, 1–26
- , 2011 Stone finds, in Pemberton & Harte 2011, 243
- , 2015 Excavations at the Roman settlement in Ewell, Surrey St Mary’s churchyard 1974–5, Ewell: Epsom and Ewell History and Archaeology Society
- , in prep a Excavations at the Roman settlement in Ewell, Surrey: Church Meadow, Church Street, 1977
- , in prep b Excavations at the Roman Settlement in Ewell, Surrey: St Mary’s churchyard 2003
- Pemberton, F, & Harte, J, 2011 Excavations at the Roman settlement in Ewell, 1970–2: Ewell Grove and Grove Cottage, *SyAC*, **96**, 227–56
- Poulton, R, 2000 *Extensive urban survey - Surrey*, Surrey County Council (2006); York: Archaeology Data Service (doi:10.5284/1000264; accessed 8 November 2016)
- Shaffrey, R, 2006 *Grinding and milling: a study of Romano-British rotary querns made from Old Red Sandstone*, BAR Brit Ser, **409**
- , 2015 Intensive milling practices in the Romano-British landscape of southern England. Using newly established criteria for distinguishing millstones from rotary querns, *Britannia*, **46**, 55–92
- , 2014 Stone, in T Black & T Allen, Animal husbandry land, NESOCOT, Reigate Road, Ewell, Surrey, Oxford Archaeology evaluation rep, 73–4
- , in prep The querns and millstones in Cowlard in prep
- Shaffrey, R, & Roe, F, 2011 The widening use of Lodsworth Stone: Neolithic to Romano-British quern distribution, in D F Williams & D P S Peacock (eds), *Bread for the people: the archaeology of mills and milling. Proceedings of a colloquium held in the British School at Rome 4th–7th November 2009*, Oxford: Archaeopress, 309–24
- Taylor, T, Gray, L, Poole, I, Lyne, M, Yeomans, L, Brown, J, Bishop, B, Major, H, & Hayward, K, 2011 Crop processing and burnt grain in Roman Croydon, *SyAC*, **96**, 191–214