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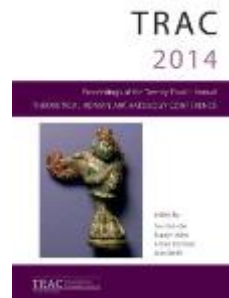
Reflections on a Long Term Research Excavation

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# Silchester: The Town Life Project 1997–2014: Reflections on a Long Term Research Excavation

*Michael Fulford*

August 2014 saw the completion of the excavation of a large sample (3025m<sup>2</sup> = 25 per cent) of one of the larger *insulae* (IX) of the Roman town of *Calleva Atrebatum* (Silchester, Hampshire, UK). The fieldwork had taken 18 summers of six-week seasons, the equivalent of over two years of continuous excavation, with teams, including staff, of 130–150 participants. The aim of the project at the outset was to characterise the changing life of the town from origins to abandonment. The initial estimate was that the project would certainly last five years, but not more than ten. However, well within five years it became abundantly clear that, despite antiquarian interventions, notably by the Society of Antiquaries in *Insula IX* in 1893, the preservation of the archaeology was such that a duration of 15 seasons was highly likely. Indeed, such was the rich complexity of the late Iron Age and earliest Roman archaeology that it only became possible to predict the end of the fieldwork a couple of seasons ahead, and that was on the assumption of reasonable weather, with no repeat of the extremely wet summer of 2012. Both the landowner, Hampshire County Council, and English Heritage, the organisation through which Scheduled Monument Consent (SMC) was negotiated (i.e. the permission to excavate), supported the project to completion in the field. The licence from the County Council and SMC were granted for five years at a time; altogether four consents and renewals of licence were sought and granted over the duration of the project. The land within the town walls had been set aside as pasture and an area including space for a campsite and the infrastructure of the seasonal excavation was fenced off for the duration; the limits of the area being adjusted as the spoil heaps grew in volume and the corresponding space they occupied.

*Insula IX* was chosen for a number of reasons: with no evidence of public buildings it could be regarded as representative of the private sphere, embracing domestic, commercial and artisanal aspects of town life (Clarke and Fulford 2002). Choosing an *insula* which contained buildings oriented obliquely to the Roman street grid offered an opportunity to test Aileen Fox's theory about an 'Old' and a 'New' town plan (1948). With aerial photography indicating the presence of buildings which had not been located by the Society of Antiquaries' project to recover a complete plan of the Roman town, *Insula IX* offered the promise of comparing them with structures which had been investigated by the Antiquaries in 1893 (Fox 1895; Bewley and Fulford 1996). Apparently open areas between buildings offered the possibility of identifying the presence of timber buildings, which the Victorian techniques of excavation were not able to identify on a systematic basis, in and around those with masonry foundations. The choice of *Insula IX* also provided the opportunity of investigating the context of one of the latest Roman/post-Roman objects from the town: the Silchester ogham stone, a truncated Roman baluster column which carried an inscription in ogham, a form of writing Celtic using the Latin alphabet

which developed in southern Ireland around A.D. 400. Although other examples of ogham inscribed on stone have been recorded from south Wales and from Cornwall and Devon, the Silchester example is the only one known east of the Severn. Finally, the record of the Society of Antiquaries' intervention of 1893 indicated that the Roman buildings, notably House 1, in the northern half of the *insula* were not so well preserved as to preclude the possibility of total excavation of the chosen area.

Prior research in the 1980s excavating beneath the remains of the forum basilica had established that there was a reasonably good prospect of recovering well preserved evidence of the earliest phases of occupation from the first century B.C. (Fulford and Timby 2000). Equally, though the sequence of later Roman occupation through to the abandonment of the basilica had suffered considerably from two major interventions in the late nineteenth century, some stratigraphy survived intact which gave optimism that there might be comparable survival of the latest stratigraphy in *Insula IX*. Assuming no truncation of deposits between the earliest and the latest, the chosen area of *Insula IX* could thus be expected to provide a sample of continuous occupation from beginning to end.

The start of the project was triggered by the need to provide appropriate training and field experience for University of Reading students studying archaeology. Whereas in the 1980s it was possible for several colleagues in the Department of Archaeology to find funding to support field projects of three to five years duration, by the 1990s funding was much harder to access and organisations offering the larger grants, like the British Academy and the Society of Antiquaries, would not fund projects beyond three years. At the same time, the growth of student numbers made it very difficult to reconcile the scale of project(s) necessary to deliver the training with the level of funding that might be accessed competitively from learned societies and the British Academy, the organisation in receipt of public funds for research in the humanities and social sciences, with its then ring-fenced funding for archaeology. With the establishment of the Arts and Humanities Research Board (later to become the Arts and Humanities Research Council) at the end of the 1990s, ring-fenced funding for archaeology was lost with the establishment of open competition for research grants between all disciplines in the humanities. However, larger grants than before were available and for a period of up to five years.

With the fieldwork already underway, financed by a mixture of grants and departmental funding, and a growing realisation that it was going to take not just more than five years, but more than ten, to complete the excavation, it became clear that the larger grants available from the British Academy and the AHRB/AHRC were best targeted for post-excavation and publication rather than the excavation itself. As it turned out, grants from these organisations funded the post-excavation and publication of the research on the Victorian excavations of *Insula IX*, as well as the late Roman and the mid-Roman occupation (Fulford *et al.* 2000; Fulford and Clarke 2002; Fulford *et al.* 2006; Clarke *et al.* 2007; Fulford and Clarke 2011). Importantly, the first grant awarded by the AHRB in 1999 began a parallel process of electronic publication drawing on the resources of the project's database, the Integrated Archaeological Database (IADB) developed by Mike Rains at the York Archaeological Trust. Developing online access to the primary field and finds data has remained at the heart of the project's publication strategy to the present. With one exception the electronic resources have complemented the conventional, printed outputs, paralleling the publication of the Victorian, late and mid-Roman phases (available at [www.reading.ac.uk/silchester/excavations/sil-excavations.aspx](http://www.reading.ac.uk/silchester/excavations/sil-excavations.aspx)); the exception is the publication in *Internet Archaeology* of the complete House 1 sequence from the late first century to the late third century A.D. (Clarke *et al.* 2007). This was a solicited contribution to a project (LEAP)

funded by AHRC, CBA and the JISC to demonstrate how electronic archives might be linked with mainstream publication.

While the decision to begin the publication programme when the excavation was still ongoing was taken as early as 1998, applying for funding from AHRB and the British Academy, it left the funding of the continuing excavation itself exposed. New sources of funding had to be identified and approaches and applications made. In several cases grants extended the scope of the Town Life Project as well as providing funding for the core activity. The Heritage Lottery Fund (HLF), for example, helped us address the information needs of the growing numbers of visitors to the excavation as well as widening access to the project to schools and colleges (Stewart *et al.* 2004). One source, the JISC, supported the development of the IADB and of methodologies to improve data capture in the field with the aim of eliminating the painstaking double-handling of the field data where records, made in the trench, were subsequently entered manually, either by digitisation of plans, or the typing of the written records, into the database. This led to the development of the IADB as a 'Virtual Research Environment' (VRE) for the Silchester project and then as a model for archaeological practice more widely, Virtual Environments for Research in Archaeology (VERA) (Fulford *et al.* 2010).

However, the need for funding focused solely on the core, the excavation itself, became more acute and further trusts, not normally associated with archaeology, were approached. While the Field School, superbly organised and directed by Amanda Clarke, ensured a consistent flow of funds for the project, these were not enough. From 2005 until the end of the last field season in 2014, the Calleva Foundation, GML International Ltd and the Headley Trust were outstanding in the level of support they gave to the project and, together, made it possible for the project to continue to completion in the field. Individuals, through their generous personal donations, and Trusts offering smaller grants also ensured the continuing viability of the excavation from year to year. Some of the smaller grants, particularly those from the Society for the Promotion of Roman Studies supported the participation of sixth formers in the Field School, such that Silchester was one of only a small handful of excavations in the UK which could ensure places for young people from year to year to gain an experience of archaeology.

While the complexity and the long duration presented enormous challenges as far as funding the excavation was concerned, the recognition that the project was going to take many seasons to complete in the field also offered opportunities to develop a reflexive approach with certain aspects of the archaeology, particularly with regard to deepening our characterisation of urban life and how it changed over time.

The development of quantitative approaches to the reporting of material culture and of systematic methodologies to recover environmental evidence, such as faunal, botanical and insect remains, or evidence of metalworking practices, for example the making and working of ferrous and non-ferrous metals, had become established – though by no means universally – in the practice and reporting of field archaeology during the 1980s, but the archaeology of Roman Britain was still skewed towards the built environment and the recovery of building plans. Understandably, where difficult choices had to be made over the prioritisation of the deployment of scarce resources in the field, it is not surprising that the structures took precedence over the environment in which they were located, particularly in a rescue or development-led context. With the implementation of PPG16 in 1990 development-led projects rapidly dominated over research and amateur-led excavations. Given the additional costs associated with complex, stratified archaeology, this was particularly true of urban archaeology of any period, with research excavations becoming very much the exception.

From the start of the Town Life Project systems were put in place to recover macrobotanical remains through flotation, with the systematic examination of the residues to recover bird, fishbone and other microfauna as well as the microscopic evidence of metalworking, typically hammerscale. This practice built on the experience of the 1980s excavations at Silchester, particularly that of the forum basilica, with its well preserved sequence of deposits from the late Iron Age, through the late and post-Roman, to the interventions of the nineteenth century (Fulford and Timby 2000). During the course of the *Insula IX* excavation sampling strategies, which initially followed the guidelines of the York Archaeological Trust, were developed in response to different conditions of preservation: for example, much larger bulk samples were taken to recover both mineralised and waterlogged remains, the first examples of which were excavated in 1998. The development of our environmental strategy owes a great deal to the active participation in and out of the field of Professor Mark Robinson, University of Oxford. At the same time, with as many as 130 participants, not including staff members, engaged in the excavation at any one time – a response to the size of the area under excavation – it was possible both to take and to process, if required, a very large number of samples, from flotation through to the sorting of the residues.

Thus, the long-term nature of the *Insula IX* project allowed the sampling strategy to be reactive to archaeobotanical post-excavation results. The analysis of waterlogged plant macrofossils from late Roman well 1300 highlighted the low density of waterlogged plant remains (Robinson *et al.* 2006), potentially due to rapid sediment accumulation in the well shaft (Robinson 2011: 281). Subsequently, a higher than usual target sample size of 20L was maintained for waterlogged contexts throughout the excavation, and this has produced very interesting results from contexts with lower than usual waterlogged densities (Lodwick 2014b). For instance, the first record of olive from a pre-Roman context was recovered from a 9.5L sample, which produced a density of 63.2 items/L (Lodwick 2014a), which is low for typical waterlogged archaeobotanical assemblages.

Whilst the flexibility in sampling allowed by the long-term nature of the project facilitated the integration of new techniques, some problems were also encountered. The initial bulk sampling strategy for charred plant remains, established in 1997, consisted of bulk samples of 10–20L from a range of contexts (Robinson *et al.* 2006). The analysis of mid- and late Roman charred plant remains samples showed that very few charred crop remains and seeds were present, and those that were present were at very low densities, averaging 0.20 (mid Roman) and 0.26 (late Roman) items/L (Robinson *et al.* 2006; Robinson 2011). Concurrently, the recommended bulk sample size in the sampling strategy gradually decreased, reaching 6L in the 2010 field school hand book, just 10–15% of the English Heritage recommended sample size of 40–60L (Campbell *et al.* 2011: 12). This was, in part at least, a response to the very low presence of charred plant remains in the mid- and late Roman periods.

The securing by Lisa Lodwick of an AHRC DPhil studentship under Professor Robinson's supervision at the University of Oxford in 2010 has ensured a much greater focus of research on the late Iron Age and early Roman archaeobotanical remains from *Insula IX* than would otherwise have been possible. Initial assessments highlighted that charred plant remains were present in higher densities than in the mid- and late Roman deposits, ranging from 0.4 to 751.6 items/L (Lodwick 2014a), and that the low bulk sampling size was having a detrimental effect on the number of crop and seed items present in a sample, and subsequently the level of data analysis which could be successfully applied to the samples' components. At least 100 identified items, or ideally 300–500 items should be identified per sample for statistical analysis to be

undertaken (Van der Veen *et al.* 2007: 203). Given that the average density of charred plant remains from samples studied from Period 1 (c. A.D. 40–60) was 9.3 items/L (Lodwick 2014a), the necessity of taking 40L samples (which would result in 372 items) is evident. The long term nature of the *Insula IX* excavation allowed corrective action to be taken in the field. For instance, bulk samples taken from the late Iron Age ditch in 2011 ranged from 15–27L, an advancement on 6L, but not ideal.

In a context where *in situ* evidence was absent, scientific characterisation of the use of internal and external space has become a major theme over the duration of the project. With many structures of Roman date with hard surfaces of mortar or tessellation it is difficult to extract evidence of the way those spaces were used, but early Roman domestic buildings tend to be built of timber with frequent use of soft materials such as clay or brickearth to surface floors. This is certainly the case at *Insula IX* where building in timber was universal up to the second quarter of the second century, but continued alongside masonry structures through to the late Roman period. The application of two techniques, micromorphology and micro-sampling of soils for XRF analysis, is helping to transform our knowledge of the use of space in *Insula IX*. The benefits of the application of micromorphological approaches in a Roman context were begun to be appreciated in the study of the ‘dark earth’ soils which formed in late and post-Roman urban contexts and which were seen to be crucial to our understanding of the end of Roman towns in Britain and the transition into the early medieval period (Macphail 1981; Macphail *et al.* 2003). While initially these soils, along with late Roman hearths, were the focus of sampling in the early years of the project, by the early 2000s when late Roman contexts were being excavated the strategy was extended to embrace internal floor surfaces. From the early 2000s, under Dr Wendy Matthews’ leadership, micromorphology had become a major strand of geoarchaeological research in the department at the University of Reading, and it inspired Rowena Banerjea’s engagement in the Town Life Project from her BA degree dissertation onwards. As with Lodwick’s DPhil research on the Iron Age and early Roman archaeobotanical remains, the winning of an AHRC PhD studentship in 2007 allowed Banerjea to focus on the characterisation of the early and mid-Roman timber buildings to a level that would otherwise not have been possible with the recurrent resources of the project. Crucially, as with Lodwick’s research, it was possible to develop a sampling strategy for micromorphology which was responsive to Banerjea’s research questions.

Thus, the characterisation of the use of space in the early and mid-Roman timber buildings of *Insula IX* became a major focus of Rowena Banerjea’s PhD thesis (2011a) and some of this work has now been published in *City in Transition* (Fulford and Clarke 2011) which covers the mid-second-to late third-century occupation of *Insula IX* (Banerjea 2011b). This strand of research is revealing a variety of information about the timber buildings, the way they were constructed and used, patterns of circulation, including the location of entrances, and their condition. For example, decaying and leaking roofs can be identified from the patterns of trampling on the clay floors. A key question about town life in Roman Britain is the extent to which agriculture remained a key occupation for the inhabitants. The presence of neonate domestic animals, cattle, pig and sheep, is strongly indicative of local animal husbandry, but the identification of herbivore dung in a decaying timber building in *Insula IX* confirms the stalling of domestic animals within the town (Banerjea 2011b). The recognition of the potential that Banerjea’s research holds for the buildings of late Iron Age and early Roman, pre-Flavian phases of *Insula IX* has ensured that her sampling strategy in the field has been maintained to the end of the project.

This approach to the study of the late Iron Age and early Roman timber buildings in *Insula IX*

is intimately linked with the study of the geochemistry of the soils which make up the internal and external surfaces of the area under investigation. As early as 2002, the sixth year of the project, our colleague Professor John Allen suggested that systematic sampling to examine variability in the geochemistry of the soils might prove informative in the detection of patterns of use and character of occupation of our buildings. While a variety of methodologies could have been applied it was decided that XRF (X-Ray Fluorescence) was the most economic in the context of a large scale and ongoing programme of sampling. Moreover, the analytical equipment was available at the University of Reading. The first samples were taken from mid-and late Roman soils from House 1 in the summer of 2002 and the initial results, focusing on elements associated with metalworking, copper, lead and zinc, showed considerable promise. Samples giving the highest concentrations of these elements were further analysed using ICPMS (Inductively Coupled Plasma Mass Spectrometry) to identify further elements, notably gold, silver and tin, not readily identifiable by XRF. While the XRF results strongly suggested bronze working associated with one hearth in House 1, the ICPMS technique also identified the presence of gold and silver as well as tin (Cook *et al.* 2005; Cook 2011). The importance of this research was that it demonstrated and localised types of metalworking for which there was little or no other macroscopic evidence from the trench as a whole, not just from within the confines of House 1. A second analytical programme concentrated on the elements of copper, lead and zinc from soils associated with several hearths ranging in date between the late first and the end of the second century (Periods 2 and 3), with one, associated with a Period 2 property, showing high concentrations of copper (Cook *et al.* 2010). From 2008 the sampling strategy was extended to include, first, the internal surfaces of buildings and, then, external surfaces as well. A recent study, analysing copper, zinc, lead, strontium, phosphorus and calcium, of the internal surfaces of the timber-framed buildings of Period 2 (late first to mid-second century) has shown distinctions between ‘clean’ and ‘dirty’ spaces, the latter associated with buildings (with hearths) adjacent to the N–S street and reinforcing the interpretation that they served commercial as well as domestic functions (Cook *et al.* 2014). A pilot project is currently under way to examine variability in the geochemistry within and between negative, ‘cut’ features, such as pits, post-holes, wells, etc., of late Iron Age and early Roman date. That the Town Life Project has been able to develop the environmental science strand of its overarching research aims as strongly as it has is a tribute to the continuing support, in particular, of the Headley Trust.

Of course, none of this approach to developing the environmental or Science@Silchester programme, as it became known, would have been possible if the University had insufficient storage facilities for all the samples. Fortunately, as the archive had outgrown the available on-campus storage capacity, it was possible to make use of a barn no longer required for agricultural purposes on one of the University farms for the storage of all the bulk categories of finds, such as pottery and animal bone, and samples associated with the XRF and micromorphology. Eventually, once the publication programme is completed, the archive will pass to the Hampshire Museums Trust based in Winchester. The benefits of retaining, at least for the medium term, soil samples which otherwise would be disposed of are beginning to be realised. As this paper goes to press doctoral research by Graham Sylvester at the University of Western Australia on the unused (but retained) fractions of the samples collected for XRF using a new analytical method, mobile metal ion (MMI) technique (e.g. Mann *et al.* 1998), is indicating more extensive gold and, to a lesser extent, silver working associated with House 1 in the second and third centuries.

With the fieldwork completed, the focus of the Town Life Project is now entirely towards research leading to publication. This process can now reverse the latest to earliest direction and

follow the usual route of publishing from the earliest to the latest. With a major grant from the Calleva Foundation, research on the Iron Age phases of occupation is already well advanced. It is expected that the publication programme will be completed by 2020, 24 years after the start of the Town Life Project. Put another way, at the time of writing at the end of 2014, the project is only about 75 per cent complete!

This has been a very high risk project, with only a handful of years when the funding, whether for the excavation or for a phase of post-excavation research and publication, has been secure beyond a single year. It is ironic that the most critical funding, for the final phase of post-excavation research and publication, has been secured at the end of the fieldwork. More often than not it is that concluding stage of a field project which is the most difficult to fund. On the eve of New Year 2015, as the post-excavation analysis establishes the first phases of the Iron Age sequence of occupation, the Town Life Project can look forward to its most exciting phase of work as it completes the research on characterising the changing life of its sample of the Calleva community over a period of continuous occupation of more than 500 years, from pre-Roman to post-Roman.

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