

## **Research Design for excavation in the allotments at Dorchester-on-Thames, Oxfordshire (SU 577 941)**

### **1. Introduction**

Dorchester-on-Thames has long been recognised as a key site for the study of British archaeology and history, with nationally important monuments of many periods both within the present village and in its immediate environs. Despite this there has been no archaeological excavation on anything more than a very small scale, and that all in a development led context, for many years, the last excavations of more than minimal size (themselves also in response to proposed development) having been undertaken some 35 years ago in the early 1970s. While understanding of the archaeology of many periods in the Oxford region has advanced very substantially in the last generation (eg Briggs *et al.* 1986; Blair 1994; Henig and Booth 2000; Booth *et al.* 2007; Lambrick forthcoming; OA in prep) the well-established potential of Dorchester to contribute to a wide variety of debates has not been matched by increases in the body of data with which to inform these debates, and new questions require new types of evidence to allow them to be addressed meaningfully. With these and other issues in mind, a Dorchester Research Project (see Section 2 below) was set up in 2007 with the aim of focussing attention on a number of the key questions relating to the archaeology of the Dorchester area. It was envisaged that this project would involve a variety of fieldwork approaches as well as re-assessment of earlier published and unpublished data. An overall Research Plan (see Appendix 1 below) was drawn up to provide a clear outline of the questions that might be considered and addressed in the course of future work in the Dorchester area. An initial season of fieldwork in 2007 included excavations in two separate locations (see Section 4 below). These produced very useful results, but were of relatively opportunistic character. In contrast, careful consideration of the Research Plan has underlined the view that a key area for understanding many of the most important questions relating to the development of Dorchester from the late Iron Age into the Saxon period is within the allotments which cover all the south-western quarter of the walled Roman town, an area which is a Scheduled Ancient Monument. This area has been previously examined in part in excavations carried out by Professor Frere in 1962 and 1963 (Frere 1962; 1984), with the area currently of specific interest lying adjacent to the 1963 trenches. Frere's work indicated the archaeological potential of the area but, by virtue of its relatively small scale, raised as many questions as it provided answers. It is considered that a further relatively modest excavation in this part of Dorchester would shed considerable light on many of the outstanding questions. The present document outlines the background to the Dorchester project and the proposed work, the objectives of such work and methodologies for achieving these objectives.

### **2. The Dorchester Research Project**

The project was initially conceived as a collaborative venture between the Institute of Archaeology (Oxford University) and Oxford Archaeology (OA), with Dorchester Museum as a key local partner. In addition, The Oxfordshire Architectural and Historical Society has since been invited to be a partner in the project. The thrust of the project is

twofold: first to provide improved understanding of the academic questions set out in the Research Plan, by whatever means possible; secondly, to enhance local interest in and understanding of Dorchester's archaeological heritage through a programme of outreach including lectures and open days, by encouraging participation in fieldwork, and by providing material and information to Dorchester Museum to ensure longer term presentation of evidence and enhanced understanding of Dorchester both for its own community and for visitors from outside.

The principal OA and Institute staff involved in the project all have specialist knowledge of one or more of the periods for which Dorchester has particular relevance and importance, or a specific local/regional interest, or (in most cases), both of these. These interests are reflected in contributions to the overall Research Plan reproduced below. The individuals are:

Professor Chris Gosden  
Professor Helena Hamerow  
Professor John Blair

Dr Gill Hey  
Paul Booth  
David Wilkinson

The project team thus incorporates a wide range of academic expertise as well as individuals with substantial practical field and project management experience (all the OA team members are experienced senior project managers). In addition the team is able to draw on technical support and individual expertise in other areas (for example, photography, geomatics, environmental archaeology, human remains) from within one or the other organisation as required.

Fieldwork is seen as a key component of the project, with a number of complementary strands in addition to the generation of new data with which to address the key research questions. The project provides a locus for training in excavation and other fieldwork techniques for students (both undergraduates and postgraduates) from the University, and it provides a similar opportunity for members of the local community to work in the context of a professionally managed and supervised project. Equally it gives an opportunity for staff from OA to participate in research excavation, providing different challenges and priorities from typical commercial work. This change of emphasis is considered to be beneficial for all.

The Dorchester Project is seen as having an extended life-span, recognising that it will take a while to generate significant momentum. Its development is seen as a reflexive process; while a long list of potential research questions already exists it is recognised that it will not be possible to address all of these within the period of the project, and equally that new questions may arise as a result of new work or new thinking, and related projects may develop out of particular opportunities as they arise. Related to the latter point is the question of access. Some landowners in and around the village have been very generous in allowing access or potential access to their land (this includes the Parish Council). Other key areas, for example to the west and south of the village, are currently not accessible for archaeological work of any kind, though it is hoped that this situation may change in the future. For the present, therefore, the focus of the project has to be on the research questions which can be addressed in those areas

where access is possible.

### **3. The Research Plan**

The full current Research Plan is presented in Appendix 1. Although informed by current work on regional research frameworks, in particular the ongoing Solent-Thames Research Framework review, it is more closely focussed on the Dorchester area, albeit within understandings of regional and national questions. As indicated above, this is seen as a working and evolving document rather than one set in stone, and in its current form presents a more detailed consideration of questions relating to the Roman period than to others. This partly reflects the balance of the weight of current evidence, but is in any case likely to change as more consideration is given to detailed issues concerning, for example, the Anglo-Saxon archaeology of Dorchester.

### **4. Fieldwork 2007**

The value of new evidence was demonstrated by the examination of two sites in July 2007. The principal excavation was located in the Minchin Recreation Ground, north of the walled Roman 'small town' and the historic village which overlies it. A much smaller excavation was carried out in a garden in Haven Close, at the southern edge of the village some 100 m south of the Roman defences. An interim account of these excavations has been prepared, from which the present brief summary has been extracted.

The Recreation Ground site, at SU 5786 9475, lies on Thames Valley gravels of the 2nd Summertown-Radley Terrace. Aerial photographs taken in 2001 showed a series of cropmarks across the Recreation Ground, and a subsequent geophysical survey commissioned by OA (Wintle report in archive) confirmed the likely survival of potentially significant archaeological remains including, in the south-east corner of the Recreation Ground, part of a curvilinear feature, suggestive of a Bronze Age ring ditch, and a square enclosure with a large discrete feature to the east of its western boundary. These features were examined in an excavated area with maximum dimensions of *c* 30 m x 20 m.

The exposed segment of ring ditch was up to 3.40 m wide and *c* 0.80 m deep. Assuming that the feature was symmetrical, it would have had an internal diameter of *c* 30 m. No Bronze Age finds were recovered, although this is not unusual for features of this type and that it was of Bronze Age date remains the most likely possibility. Some Roman material was recovered from the top of the upper fills, probably originating from a Roman ploughsoil.

Two small pits in the south-west corner of the site were of 2nd century date, but the most significant features, of late Roman date, were the western, southern and eastern boundary ditches of a rectilinear enclosure aligned roughly north-south and east-west, measuring *c* 20 m across from east to west and at least 14 m north-south. All the ditches had been recut. The eastern and southern ditches cut the infilled ring ditch. It is likely that most of the ditch alignments extended beyond the single enclosure, but the relevant evidence lay outside the excavated area. The principal feature within the enclosure was a waterhole some 4.4 m in diameter with a stepped/ramped access on the east side, also of

late Roman date. The finds consisted primarily of pottery, but animal bone and a range of metal objects, occasional glass fragments, a glass bead and metalworking slag were recovered. Sixteen coins were found, all of 4th century date, of which 5 were House of Theodosius issues of the period AD 388-402. This very heavy weighting of the coin loss profile in favour of the end of the 4th century is unusual in general terms, but is a known characteristic of Dorchester. The majority of the pottery was also of 4th century date and was dominated by products of the Oxford industry.

A small trench some 2.5 m square was excavated by hand in the back garden of 4 Haven Close (at *c* SU 5777 9384), providing an opportunity to examine an area south of the Roman town on a slight elevation, the interpretation of which was uncertain. This feature now seems to be a local variation in the natural topography. Worked flints from the top of the natural subsoil ranged in date from the Mesolithic to the Neolithic/early Bronze Age. The principal feature identified was a north-south aligned Roman ditch, perhaps associated with a north-south road that may have lain a little to the west of the site. The ditch fills produced relatively large quantities of finds. The pottery from the ditch, and from overlying deposits, was almost exclusively early Roman in date. Much of it (including local fine wares and pre-Flavian South Gaulish samian ware) can potentially be assigned to the period from the Roman conquest up to the early 70s AD, with only a few sherds likely to be later in date. Late Roman activity was represented by an infant burial, radiocarbon dated to AD 240-390 (2-sigma range).

The 2007 excavations have added useful new evidence to understanding of the Dorchester area. The flintwork from Haven Close indicates at least sporadic prehistoric activity over a longer period than hitherto known in the vicinity, while the identification of the Bronze Age ring ditch at Minchin Recreation Ground shows that the known Neolithic and Bronze Age ceremonial complex extended closer to later (Iron Age and Roman) foci of activity than had been thought previously. The Roman evidence, with its markedly contrasting chronological emphases, is particularly interesting. The very early Roman material from Haven Close is comparable with that recovered in some of Frere's sites in the south-western part of the walled town, but also seen in one or two more widespread locations. This suggests significant activity prior to the likely post-Boudican Roman military occupation, although its context is still to be established. The possible north-south road was cut off by the construction of the defences, which may help to explain the lack of later Roman material at this site, but the likely date of construction of the defences, in the later 2nd century, seems too late to explain apparently significant changes in use of the area as much as a century earlier. In contrast, there was no early Roman material and very limited evidence for activity of the 2nd-3rd centuries at Minchin Recreation Ground, situated some 400 m north of the Roman defences. It is just possible that the Roman enclosure originated in the later 2nd century, but most of the associated material was later in date, and occurred in quantities that suggest domestic activity in the very near vicinity. The very late Roman emphasis of the site is striking. It bears comparison with some of the late sequences within the Roman town, but also with evidence from Bishops Court, outside the defences to the west (May 1977). Together these sites suggest unusually widespread activity at the very end of the Roman period, underlining the apparently special character of Dorchester at this date. With the possible exception of a single small pottery sherd, however, no early Saxon material of any kind was recovered.

## **5. Dorchester Allotments: the proposed excavation**

The allotment site, comprising the most substantial open area within the walled Roman town, is uniquely placed to be able to provide data to address many of the issues set out in the Dorchester Project Research Plan, both relating specifically to this part of the Roman town and more widely to the issues of the key transitional periods at both ends of the Roman era that form a major focus of the wider Dorchester project. In view of the general character of the modern village it is highly improbable that opportunities will arise to address many if any of the identified research questions in a systematic way within the context of PPG16 related archaeology - the scale and location of development in the foreseeable future is likely to result at best in minor and ad hoc additions to knowledge, even though it may be possible to place some of these within a wider research framework.

The north-western corner of the allotment area is a particularly suitable focus for research as it is the one known location of military features, so its examination would be directly relevant to all those questions that relate to the early phases of development of the Roman town. Later features, particularly those of Saxon date, may, however, be of equal if not greater importance. In addition, a pragmatic consideration is the fact that this part of the allotment area has been unused over a number of years and is available (with the permission of the Parish Council and the Allotment Committee) for examination. A further aspect of the work would be to consider both the precise nature of soils overlying the archaeological deposits and the related question of the extent to which archaeological horizons have been affected by allotment-related activities both in absolute terms and also in comparison with the situation observed by Frere in the 1960s (this could be achieved by siting an area of excavation to incorporate one or more of Frere's trenches). This could be of value in informing management strategies for the allotment area as a whole. It may also be possible to provide more precise characterisation of the deposits immediately overlying late Roman layers and features. Can they be categorised as 'dark earths' and if so, how do they compare to soils of this general type from other (usually urban) sites? Alternatively, does recent allotment-related disturbance impact and interface directly with Roman features?

The proposed excavations will comprise a principal area *c* 30 m x 20 m and one or possibly two hand dug test pits 2 m square. The attached plan gives the indicative location of the proposed area, though the precise outline of the area may be subject to change (within the constraints of the overall area limit of *c* 610 sq m) depending on external factors and perhaps upon the results of geophysical survey. The proposed trenches cover an estimated 1.5% of the area enclosed by the Roman defences (assuming that the east side of these lay west of the present Abbey church). The objective of the main area excavation is to attempt to provide definitive characterisation of the various components of the archaeological sequence based on their examination in plan combined with comprehensive analysis of the associated artefactual and ecofactual material. The size of the proposed excavation area is intended to strike a balance between excessive disturbance of the archaeological resource on the one hand and the provision of a sample adequate to provide the desired degree of characterisation on the other. One of the principal difficulties with present understanding of the site, based on the excavations of Frere in the 1960s, is the scale of the latter, with attendant problems of interpretation. The proposed excavation area would therefore incorporate a number of Frere's old trenches

(specifically part of Trench E I and all of Trenches D I-D III) in order to ensure precise correlation of his findings with the new evidence. These trenches are known to include features of the presumed early Roman military phase and of Saxon date, thus making it all but certain that the larger excavated area will allow attention to focus upon both the key transitional phases to be examined in this area, ie the origins and early development of the Roman town and the transition from late Roman town to Saxon settlement, and improve understanding of the exact nature of the activity in both phases as well as producing evidence to refine the chronology of these and other parts of the site sequence.

## **6. Fieldwork Methodology**

The proposed excavation will be preceded by geophysical survey of as much of the northern part of the allotment area as can be accessed. This will consist of a magnetometer survey (using a Bartington GRAD601 gradiometer with traverses 1 m apart and readings along each traverse at 0.25 m intervals), and a resistivity survey using a Geoscan RM15 (or equivalent) with traverse separation of 1 m and 1 or 2 readings per metre, the results of which may be used to inform minor adjustments to the precise location of the proposed excavation areas. The georeferenced survey grid will be used as the basis for the location of the excavation areas.

It is proposed that the uppermost deposits in the main excavation area should be removed by machine under close archaeological supervision by an experienced machine watcher - to a maximum depth of *c* 0.5 m (the evidence of Frere's excavation suggests that overburden deposits in this part of the allotments are typically in excess of *c* 0.65 m). In view of the potential significance and fragility of Saxon features it is important that the latter be examined from the start by hand. Nevertheless, it will also be helpful to examine the entire sequence of deposits from modern ground level, particularly with regard to detailed assessment of the impact of horticultural and other activities and characterisation of the soils at the interface between these (or any other) deposits and the archaeological sequence. This will be achieved by hand excavation of the test pit(s) mentioned above. The topsoil piles will be scanned for finds using a metal-detector and a sample of the topsoil will be sieved for finds recovery to provide outline characterisation of the material in these deposits.

After cleaning, hand excavation of the open area will be undertaken by students and volunteers under close supervision with an emphasis on training in excavation and recording technique. Supervision will be provided by experienced staff from OA supported by postgraduate students, several of whom have spent extended periods working as part of professional teams on OA projects. Detailed sampling and recording methodologies will follow established standard OA practice (based on Wilkinson 1992, currently in the process of comprehensive revision; also IFA 2001). In summary, planning of exposed deposits and features will typically be at scales of 1:50 or 1:20 as appropriate, though complex features and structures may be planned at 1:10. Sections will usually be drawn at 1:20 or 1:10. A full photographic record, including digital photographs, will be made. All artefactual material will be recovered by context and 'small finds' will be three-dimensionally located. An experienced metal detector user (volunteer) will be on hand to ensure that significant metal objects are not missed. Ecofactual material (eg animal bones) will be recovered by hand. Soil samples of

appropriate size will be taken for recovery of small animal bones and charred plant remains. Any waterlogged deposits encountered will be sampled for environmental material. Other samples may be taken as appropriate, for (for example) metalworking debris, cremated human remains, snails, pollen and soil micromorphology. Since understanding the nature of the transition from the late Roman to the Anglo-Saxon period is a key focus of work in the allotments, aspects such as soil micromorphology (in relation, for example to 'dark earth') will be of particular significance. Sampling methodologies (and sizes) will be as set out in the OA handbook (attached as Appendix 2 here), which conforms to English Heritage standards (English Heritage 2002). Samples may also be taken specifically for the recovery of material suitable for radiocarbon dating, particularly of the post-Roman sequence, although it is likely that such material will be recovered from samples taken for other purposes, such as recovery of charred plant remains.

## **7. Programme, Logistics and Staffing**

The site is in the ownership of Dorchester Parish Council, who have indicated their willingness for the proposed work to be undertaken. The present programme anticipates the start of fieldwork at the end of June 2008, with topsoil removal ideally taking place in the week commencing June 23rd (pre-week) and the main team in place at the beginning of the following week (week 1). The undergraduate students will be on site for two weeks (weeks 1 and 2). Some of these and the supervisory team will remain on site for a further week (week 3), when the focus of training-related activities will be on the local volunteers. Any outstanding issues of site recording will be resolved in this week, with backfilling of the site taking place in week 4. The precise depth and degree of complexity of the anticipated stratigraphic sequence are unknown, but it is thought highly unlikely that the whole sequence will be examined in a single season. In this case, extant exposed features and deposits will be carefully covered prior to backfilling, with the intention that work will be continued in the following season, or seasons if necessary. The possibility that the area may need to be re-opened has been discussed and agreed with the Parish Council.

\*The excavation will be carried out under the oversight of the principal project team members. At least one of these (in the current season probably Paul Booth for most of the time) will be on site full time. Supervisory staff will be drawn from OA personnel, a number of whom worked very successfully in this role in Dorchester in 2007, as well as from a group of Oxford postgraduates with field experience and training skills. The supervisor to student ratio will normally be held at a maximum of 1:5 to ensure the quality of the work undertaken and the training delivered.

## **8. Health and Safety**

A health and safety plan will be prepared and a risk assessment will be carried out prior to the commencement of excavation. Other standard OA H&S policies will be adhered to; this aspect of the project will be overseen by David Wilkinson, Assistant Health and Safety Co-ordinator for OA, who is currently taking the NEBOSH national certificate in

Occupational Health and Safety. Full H&S briefings will be given on a regular basis. Welfare facilities including secure cabins will be provided on site. Portable toilets will be provided in sufficient number and regularly serviced. It is hoped that carrying out removal of topsoil in the week prior to the arrival of the students will eliminate one of the most significant health and safety risks.

## **9. Post-excavation work and dissemination of results**

Dissemination of the results to a variety of professional and other audiences is a key part of the Dorchester project. A series of lectures and an open day were held in conjunction with the 2007 field season, and it is proposed that this approach will be followed in further years. The OA Outreach Officer and the Dorchester Museum committee are closely involved in this aspect of the project.

Interim reports on fieldwork will be prepared for submission to *South Midlands Archaeology* and more extensive illustrated interims may be produced, following the model of the Marcham/Frilford project leaflet produced in 2007. Longer academic interim reports will be submitted to *Oxoniensia* and to appropriate national cross-period and period based journals (eg *Archaeological Journal*, *Britannia*, *Medieval Archaeology*). It is proposed that the process of producing annual interim reports will involve as a minimum the checking of the basic stratigraphic data, and spot dating of all ceramic and other key dating material, so that the frameworks for subsequent more detailed analysis are firmly in place from an early stage and basic analytical work is not left to a late phase in the overall project programme. These levels of information will also be required to inform decision making processes about further stages of work within an individual site or on other sites within the scope of the wider project.

Final publication of the results of the project is likely to be of monograph length, though separate publication of specific aspects of the project's results is not precluded. Both the Institute of Archaeology and OA have well-established publication programmes and OA has a dedicated post-excavation department with a range of specialist expertise and facilities to underpin the post-excavation process, with a good track record of delivery of substantial reports (for example, 8 full-length monographs were published from the Oxford office in 2007-8, plus a wide variety of other productions).

Resources for the Dorchester Project are drawn from the main partner organisations, both of which have already made significant contributions in terms of staff time and other inputs. This pattern of support will continue, although funding is being or will be sought from a variety of sources (eg RAI, Roman Research Trust) to offset costs such as plant, accommodation and other expenses. The bulk of the supervisory manpower costs, which are not readily supported by grant-giving organisations, will be borne by the main partners. This will apply as much to the post-excavation programme as to fieldwork, although funding will be sought for as many aspects of the post-excavation programme as possible, bodies such as the Roman Research Trust again being targeted. It should be noted that the Oxfordshire Architectural and Historical Society has highlighted publication of the results of the project as an area of particular interest to them and it may be anticipated that material support for this aspect of the project will be forthcoming from the society, though it is too early yet to quantify this. As is common with such projects, it is likely that aspects of the post-excavation analysis, whether in the area of particular

material (finds) types or subject/period interests, may be examined in the course of postgraduate studies. Whatever the scale of support from outside bodies, post-excavation funding is guaranteed by the principal partners (OA and the Institute of Archaeology). Both OA and the University are committed to the delivery of a major publication within a reasonable timescale.

## **10. Finds deposition and archive**

The finds and archive will be deposited with the Ashmolean Museum, which has an historic association with collection from the Dorchester area. Prior to the completion of the project, however, most if not all of the archive (site records and finds) will be housed at OA premises in Oxford. During this period, and subsequent to final deposition at the Ashmolean, finds and other materials may be made available to Dorchester Museum for temporary or longer-term display. The Museum will be submitting a Heritage Lottery Fund application, principally intended to effect improvement in its display and interpretation facilities, and advice is being obtained from Ashmolean staff in relation to this.

## **APPENDIX 1: RESEARCH PLAN FOR DORCHESTER-ON-THAMES**

Dorchester-on-Thames is a key site in English, and indeed British, history. It is the only site in the country where there are towns dating from the late Iron Age (100 BC – AD 43), the Roman and the Anglo-Saxon periods which have not been obscured by later development. Members of the School of Archaeology and the History Faculty of Oxford University are planning a long-term project to investigate these sites in collaboration with Oxford Archaeology and with the local community in and around Dorchester. Investigations at Dorchester will allow us to gain a better understanding of four of the key transition points in English history: the origins of agricultural societies in the Neolithic; the growth of urbanisation and moves away from a tribal society in the late Iron Age; subsequent incorporation into the Roman Empire and the rise of an early Medieval centre from the confused situation after the severance of Britain from western Roman administration in the first decade of the 5th century .

Dorchester lies in a loop of the river Thames at its confluence with the river Thame and is on a peninsula of second gravel terrace above the river floodplains. Today, the town is encircled by gravel quarries many of which have become lakes, giving Dorchester the appearance of sitting on an island. An extraordinary concentration of Neolithic and early Bronze Age ceremonial and funerary monuments lay to the north of the town, dating to a time when Dorchester was a centre of regional importance and possibly a pilgrimage site. Dyke Hills is a remarkably well-preserved Iron Age town of around 25 hectares to the south of the modern town, delimited by the Thames to the west and south, the Thame to the east and by impressive ditch and bank earthworks to the north. Air photographs have revealed extensive remains of house circles, pits and other settlement evidence within the enclosed area which has been frequently ploughed in the past. Traces of later Bronze Age and Iron Age settlement and field systems have also been discovered to the north of the dykes. No excavation has taken place here as yet.

Dorchester is one of only two walled Roman towns known in Oxfordshire. The defences enclose an area of *c* 6 hectares situated west of the river Thame. Part of an extensive late Roman ‘managed’ cemetery, lying *c* 700 m north of the town, was excavated in 1972 and 1981 at Queenford Farm in advance of gravel quarrying, and another apparently similar cemetery on the other side of the Thame near Warborough also, presumably, belonged to the town. Both are possibly of Christian character. The late Roman inhabitants seem to have chosen to bury their dead at some distance from the town, a situation paralleled elsewhere (e.g. Verulamium). Three nationally important early 5th-century burials have been discovered at Dorchester: a man and a woman found in the Dyke Hills Iron Age ramparts and a woman next to the Minchin Recreation Ground. These individuals provide tantalising and unique evidence of society at the end of the period of Roman rule in Britain. They were buried with Roman artefacts as well as dress items from the other side of the North Sea, but date from the immediately post-Roman period showing that a Roman lifestyle may have survived political and military breakdown of the early 5th century. In around AD 635 Birinus established a bishopric at Dorchester, the first within the kingdom of Wessex. The see was transferred to Lincoln by William I in 1071, leaving the former cathedral site as a minster of secular priests and then, in due course, an Augustinian abbey. The present abbey church contains probable remains of the late

Anglo-Saxon cathedral.

Over a period of at least ten years we hope to carry out excavations on each of these sites, creating a complex picture of close to a thousand years of change fundamental to the development of Medieval and indeed modern England. The team is multi-disciplinary and will combine archaeological and historical research. The excavations will provide training for undergraduates and also members of the local community. This community is enthusiastic to participate and their involvement is a major element of the project, which will provide an opportunity to engage the whole community (from school children to older residents) in the investigation and promotion of understanding of their past and its importance.

### **Research Aims**

The overall aims of the 'Discover Dorchester' project focus on an understanding of people's sense of identity and how this changed and was redefined through time, especially through key periods of transition. From the time of the arrival of the earliest farming communities in the early Neolithic to twentieth-century villagers, we will investigate:

- A. the relationship between people, their families and the community on a local and a regional scale
- B. belief systems and the role of ceremonial and religious sites
- C. changing expressions of identity at individual, community and wider levels through time
- D. the relationships between people and the surrounding landscape, including their impact upon it.

### **Research Objectives**

Exactly what will eventually be done depends on a number of factors, prime amongst which is access to key sites. However, within these constraints, the following activities are planned:

1. To collate, map and describe past work and finds from Dorchester and the surrounding area, combining this within a Geographical Information System (some of this has already been done). This system can be up-dated as fieldwork progresses. Discussion will take place with the Museum and local groups over how to make this information available.
2. To carry out topographic mapping and geophysical survey of areas within and around Dorchester. No detailed topographic map of Dorchester currently exists and it might well

provide indications of the shape and extent of the Roman town and other features. This will be partly undertaken by Continuing Education students (led by David Griffiths), but could benefit from local involvement.

3. To carry out a detailed programme of environmental sampling on the gravel terraces and old courses of the Thames. This would allow us to reconstruct in detail the changing landscape around the rivers from the Neolithic onwards, and would lead to an understanding of changing vegetation and flooding regimes through the prehistoric and historical periods.

4. To investigate surviving elements of the Neolithic and early Bronze Age ceremonial complex in order to elucidate how people organised the construction of the first monuments in the area, how these sites were used and how Dorchester developed into a regional centre. Modern analytical techniques will be used to shed light on material from old excavations.

5. To elucidate the nature, character, extent and date of late Bronze Age, early and middle Iron Age in the area generally, drawing upon existing evidence from the Wittenhams as well as from the Dorchester side of the river. To use this evidence to throw light on the agglomeration of settlement in the late Iron Age.

6. To examine the late Iron Age evidence in detail. This would obviously focus (if possible) on Dyke Hills, but would also look at the spread of late Iron Age evidence in the region as a whole. This could be undertaken through geophysical survey, field walking and excavation, and working with metal detectorists.

7. To examine the Roman fort and town in more detail, throwing light on their internal layout, dating and changes through time, paying particular attention to recovery of evidence for social and economic aspects of the successive stages of the Roman town. This will mean concentrating on the Allotments and areas adjacent to them, but we will also want to know more about the broader distribution of Roman features in the area, including roads, river crossings and harbour frontages.

8. To uncover more evidence of the transition from the Roman world into the Anglo-Saxon one in the fifth century and the eventual establishment of the Anglo-Saxon town and surrounding settlement. This will involve looking at post-Roman features above the Roman town, but also areas of Anglo-Saxon settlement to the west as far as these have not been destroyed by quarrying, the area around the Abbey and any burials to the north (in the vicinity of the Minchin Recreation Ground) which might date to the fifth or sixth centuries.

9. To look at the establishment of the present town through a combination of excavation in many of the areas mentioned in 7), together with a building survey (hopefully directed by Malcolm Airs and in collaboration with local people).

This list is based on a series of research questions for each period which are presented in the appendices ('Period questions') below, and also on our current state of knowledge. Almost certainly, new goals will develop as we discover more about this complex area

and its many histories.

## **Period questions 1: Neolithic and Bronze Age**

*Gill Hey*

### ***Introduction***

The Neolithic and Bronze Age complex at Dorchester-on-Thames is an extraordinary concentration of ceremonial and funerary monuments which were mainly built over the two millennia between around 3700 and 1700 cal BC. At that time, Dorchester would have been a site of regional importance, possibly a pilgrimage site and the most prestigious monument group in the Upper Thames Valley. Today, it is of national significance and is frequently cited in accounts of prehistoric Britain. Sadly, it was largely destroyed by gravel extraction and road digging from the 1940s to 1980s and, although a number of sites were excavated in advance of extraction most of the area was never examined and the material was analysed without the benefit of modern techniques. Nevertheless, enough of the site and its archives survive (indeed more than we had thought) to address a number of important research questions about the earliest farmers in the region and their relationship with their environment, burial practices and the beginnings of monumentality.

The earliest monuments at Dorchester were quite small in scale and seem to be associated with funerary rituals. These include two mortuary enclosures that lay over 1 km apart, but which shared a NW-SE alignment. Between around 3400 and 3200 cal BC, the cursus, a long and impressive linear ditched enclosure, was constructed which linked these earlier monuments. It stretched for over 1.8 km across the narrow neck of land between the Rivers Thames and Thame. Cursuses are enigmatic features, but are believed to be associated with ritual processions. The Dorchester Cursus, by linking a number of the earlier funerary monuments, may have been constructed to commemorate the dead in a dramatic way.

The Cursus provided the focus for several exotic monuments with recut ditches and circles of pits and postholes. Many cremation burials were placed within these features towards the end of the Neolithic (*c* 2900 - 2500 BC). Cremation was not very common at this time and the number of these deposits and manner of their deposition makes Dorchester unique as far as we know.

At the end of the Neolithic the Dorchester Big Rings Henge monument was built. This was nearly 200 m in diameter and would have provided a spectacular arena for a large number of people to congregate and to witness and participate in ceremonies and rituals. It would have performed a similar function for the surrounding area as Avebury, in the Upper Kennet Valley.

The monument complex provided a focus around which round barrows were built in the early Bronze Age (*c* 2200 - 1600 BC). Our excavations in 2007 demonstrated that the barrow cemetery was more extensive than had been thought.

### ***National research aims***

To investigate:

1. the relationship between people and their landscape and how people began, for the first time, to alter the world around them
2. belief systems and the role of ceremonial sites in the later Neolithic period, in particular in relation the exchange/acquisition of exotic material and to possible pilgrimage sites
3. people's sense of identity: their relationship to their family and communities at a local and regional level. More distant links. Were these relationships redefined over this period of time?

### ***Research questions***

#### *Communities and settlement*

- What do we know about the earliest farmers in the area, and when did they first begin to settle around Dorchester?
- How permanent was settlement and how did it relate to the monument complex?
- What was the impact of local communities on the surrounding vegetation?
- How many people were involved in the construction of the major monuments, and what can the method of construction and length of time over which this took place tell us about the size of local communities and the extent to which they co-operated on major projects?
- What landscape change occurred over the period of use of the monument complex?

#### *Monumentality*

- Why were particular places chosen in the landscape?
- Were monuments sited in places that were already significant in the landscape, for example places of earlier settlement, or was the natural tree cover deliberately cleared for the purpose of monument construction?
- Why and how did a dispersed group of funerary monuments become a large monument complex, in particular through the construction of the cursus and, later, the Big Rings henge?
- What was the process of embellishment of these monuments and what can it tell us about the changing character of ceremony and ritual in the Neolithic and early Bronze Age period?
- When did the monument complex cease to be used?

#### *Relationship with the dead*

- At what date did human bodies begin to be placed amongst the Dorchester monuments and how long did this practice continue?
- Can we elucidate the reasons behind deciding to place human remains in the complex and what this tells us about people's belief in the afterlife and the power of ancestors?
- Can any change be seen in burial practices over time?
- Can we identify family groups, particularly amongst the cremation burials?



## **Period questions 2: Iron Age Dorchester**

*Chris Gosden*

Very little is known about the Iron Age occupation of Dorchester, as compared to any of the other periods outlined here. This is probably because most Iron Age occupation centred on Dyke Hills, which has not seen any recent investigation. All of the earlier occupation from the late Bronze Age onwards appears to have occurred south or west of the river. Investigations in 2003 on Castle Hill showed activity from the late Bronze Age through to the Middle Iron Age, but significantly late Iron Age activity was lacking. A similar pattern was found in 2004 on a plateau beneath and to the south of Castle Hill and Round Hill. Here occupation occurred from the late Bronze Age, with a substantial area of midden from the early Iron Age, but activity seems to stop between the middle Iron Age and the Roman periods (Allen and Lamdin-Whymark 2005). A similar situation is found in the Long Wittenham area (Baker 2002), with most activity occurring in the early to Middle Iron Age and the Roman periods. All the indications from work on the Wittenhams are of an absence of late Iron Age activity and it might well be that populations concentrated in Dyke Hills at this time. Indeed, it may be, on the basis of hut circles of middle Iron Age date generally in the Thames valley, that occupation started there in the middle Iron Age, with the Dykes added in the late Iron Age. The other indication of activity is metalwork from the Thames near Day's Lock, reinforcing the importance of the Thames at this point, near its junction with the Thame.

### ***National research aims***

The oppida of Britain are very poorly known, with few having been investigated to any extent, especially in relationship to their surrounding landscapes and to earlier and later developments. This part of the Upper Thames seems to have two oppida relatively close to each other – Abingdon and Dorchester. The former site has been subject to important investigations, although the material has not been analysed or published. Dorchester has seen no real investigation. It remains a topic of some priority to investigate these sites both individually and in relation to each other.

### ***Research questions***

1. Basic questions remain to be resolved concerning the distribution and type of Iron Age occupation in the Dorchester area. Very few remains have been found compared with areas south and west of the Thames. A campaign of survey, geophysics and targeted excavation is needed to throw light on the questions.
2. The history and nature of occupation at Dyke Hills is also unknown. Even if it is not immediately possible to carry out any excavation on Dyke Hills, a detailed magnetometer survey would throw considerable light on the nature of the interior use and occupation.
3. We know very little about the transition from the Iron Age to the Roman period or what the relationship was spatially and otherwise between the latest Iron Age occupation and the earliest Roman use of the area. Did Dyke Hills continue for a decade or two after the Roman invasion before being superseded by the late first century Roman fort? Or did

some sort of Iron Age style occupation continue until the construction of the Roman town in the second century AD?

## **Period questions 3: Roman Dorchester**

*Paul Booth*

### ***The archaeological background***

The archaeological importance of Dorchester in the Roman and other periods has been appreciated for a long time – for the Roman period at least since the discovery of the well-known altar of M Varius Severus in the 18th century. The scale of excavation at all times has, however, been limited; significant work on aspects of the Roman town can be summarised rapidly.

There have been numerous antiquarian finds, most of which are poorly recorded (VCH1, 288-295), but the first properly recorded excavation was on the defences of the town, which were examined by limited trenching on the west side before the Second World War (Hogg and Stevens 1937). The most important work is that undertaken by Frere (1962; 1984) in the allotments in the early 1960s, in anticipation of a threat of housing development which never materialised. While modest in scale, this work identified features assigned to a military phase of the AD 60s and 70s, revealed more of the defences (on the south side) and parts of the internal street system. Parts of several roadside buildings dating from the 2nd century onwards were also examined including, most importantly and most extensively, a small structure built not before the 390s. Equally if not more important was the evidence for early as well as potentially middle/late Saxon buildings. Further small-scale excavations were undertaken within the Roman town in advance of development in the early 1970s (Bradley 1978; Rowley and Brown 1981). Subsequently, the only substantive archaeological work on the Roman period related to the extramural cemetery at Queenford Farm (Durham and Rowley 1972; Harman *et al.* 1978; Chambers 1987). Post PPG16 work within and adjacent to the defended area has been very limited in scale (and, usually, in importance) and most has not been formally published. In effect the OA/University excavation of 2007 in the Minchin Recreation Ground, itself modest in scale, was the first significant excavation within the present village with a (partly) Roman focus to be undertaken in 35 years.

Within this time understanding of, and the questions relating to, small Roman towns in Britain have inevitably advanced enormously, both at regional and national level (eg Burnham and Wachter 1990; Burnham 1995; Burnham *et al.* 2001; Booth 1998; Booth *et al.* 2001). While Frere's excavations were particularly valuable in providing a series of pointers to aspects of the character of the Roman town and its post-Roman development, and in indicating the archaeological potential of the allotment area, many of the new (or more specifically-formulated) questions about the development of the Roman town and aspects of the associated archaeological record (such as environmental issues) can only be addressed with new material.

### ***National research aims***

The most recent general review of research questions in Romano-British archaeology is that edited by James and Millett (2001), although it was explicitly 'designed not to specify any particular research agenda' (*ibid.*, 1). As a 'small town' Dorchester has characteristics discussed *inter alia* in the context of urban (Burnham *et al.* 2001) and rural settlement (Taylor 2001). Broad aims derived from these and other assessments under the

overarching headings of 'transitions and identities' and 'characterising settlement and society' (James and Millett 2001, 2) include:

1. Examination of processes of urban development: settlement morphology and changing patterns of land use as a guide to understanding social and economic change
2. Refinement of the chronology of these processes, particularly at key periods of 'transition'
3. Examination of the size and identity of urban populations
4. Examination of the impact of larger settlements on the surrounding landscape and their assumed role as market centres
5. Emphasis on the importance of contextual analysis of artefactual and environmental evidence

### ***Research questions***

The following section concentrates on questions that concern the walled town of Dorchester, while not necessarily being exclusive to it. Equally, these can be set within wider questions (which the Dorchester Project hopes to address) relating to spatial and environmental setting on the one hand and long-term cross-period temporal developmental sequences on the other, which are not specifically covered here.

#### *Chronology and development sequence*

Is there late (or indeed any) Iron Age settlement or other activity within the area of the Roman town (ie north of Dyke Hills). If so, do any of its characteristics have a bearing on aspects of the Roman urban topography? [Frere's excavations indicate the presence of pre-fort features, but their overall chronological range and character is not clear]

What is the chronology of the military activity - can we clarify if it is conquest period or (as seems likely at present) post-Boudican? and what relationships (if any) are there between military activity and a) LIA foci such as Dyke Hills b) the earliest phases of the civilian town.

Does a development model of LIA high-status focus - fort/vicus - civil settlement work here?

If the fort is Boudican is there an earlier military focus elsewhere, and if not, what was happening in the period from AD 43-60? What implications might this have for understanding the character of the presumed LIA focus of power at Dyke Hills, and for how any such power base might have been maintained or modified in the immediate post-conquest period?

Can the chronology of major developments such as the imposition of successive phases of defences be refined? Can such developments be correlated with changes in structural sequences of settlement and other complexes both within and without the defences?

The 5th century and beyond: how can the very latest 'Roman' features and deposits be characterised and their dating refined?

### *'Urban' morphology*

What is the extent and character of pre-fort settlement? Is there any evidence of planning, eg analogous to pre-fort developments at Silchester?

How big was the fort(s), how was it orientated and where are its defences? (see below: arguments about road alignments might suggest that the fort lay west of the N-S road). Was there contemporary civil settlement (a *vicus*) and if so where exactly was this located and how extensive was it?

Post-fort development – was the fort site itself used for settlement immediately upon abandonment, or was there an hiatus in the occupation sequence here, settlement perhaps remaining concentrated in any extra-fort location? Did the fort remain a significant influence on the layout of the developing settlement, as was the case at Alchester, for example?

Were there any significant changes in basic settlement form in the period between the military phase and the construction of defences in the later 2nd century AD? What was the extent of settlement at the latter point in time?

What is the density and character of structures within the settlement nucleus? At present the best evidence shows structures directly fronting the known roads, but was this invariably the case, and are there functional distinctions between road frontage and other buildings or between different zones within the town that would provide more insight into urban form?

What were the consequences of the construction of defences - was there remodelling of the intramural settlement, or were changes largely confined to external areas – for example south of the defences where there may have been a reduction in settlement?

How is the relationship between the defended area and the 'Abbey' area to the east articulated? Was the latter always distinct (suggestions of early pottery manufacture and later burials, for example), or was it merely peripheral to a focus to the west. It has been suggested (eg Rodwell 2005) that references to structural evidence beneath the Abbey might relate to a temple (is it even possible that there was a pre-Roman religious focus here – perhaps as part of the wider Dyke Hills complex?). Can this be followed up and is there any way in which the chronology of such a structure (and perhaps the extent of an associated temenos) can be identified?

How did the construction of defences impact on settlement on the east side in particular? Did Roman settlement in the vicinity of the Abbey change in character as a consequence of exclusion from the defended perimeter and if so, in what ways [why is the abbey established here rather than within the Roman defensive circuit?]

### *The road network*

How does the Roman road system really work in the area S and E of the town, how do these roads cross the Thames and the Thame? (see also above). Does the existing (mid 2nd century) road alignment determine the location of gates in the defences, or is there (for example) adjustment of the arrangement at the Thame crossing once the defences are in place? Within the town which roads are primary and which secondary?

Clarifying details of the evolution of the road network might provide a useful lead into understanding the wider development of Dorchester's urban topography. While the road network may have grown organically there are likely to have been several distinct phases of its development:

1. LIA-pre-conquest. Trackways, at least some of which are likely to have been defined by ditches – but where are they, and what do they link?
2. Conquest period – or soon thereafter. The strategic north-south road from Silchester to Alchester. Does this follow the later route (probably), how does it relate to Dyke Hills, if at all, and can its alignment be used to make inferences about the possible location of a conquest period military establishment?
3. Post-Boudican fort. Its imposition may not have had any significant consequences for the existing road alignments, but if the N-S road was already in place on its known (?) alignment this may in turn have implications for the position of the fort, which is more likely to have lain beside the road (cf Asthall) than to have straddled it.
4. Early post-fort civil development. As the settlement expanded new roads/trackways are likely to have developed on an ad hoc basis.
5. Late 2nd century (?) defences. The N-S road in the S part of the settlement is cut off by these. What other changes were involved? Were roads that now seem to be possibly aligned on the E gate (eg from Henley, or the road/track to Queenford Farm) always on these alignments, or did they develop in the wake of the new enclosure
6. Do late Roman alterations to the defences have any further implications for changes in the road pattern?

### *Defences*

Where exactly were the gates – how many were there and what was their character? Were towers ever added to the circuit in the late Roman period (Towers might be unusually important in view of the potential 'sub Roman military' phase). It has been suggested that the outer ditch, with its 'waterlogged deposits, might have been linked to the Thame. This could be investigated by detailed topographical survey – do the levels work?

### *Interior structures:*

Issues of building density and also chronology: are there really as many spaces as Frere's excavations might suggest, and are so few structures of early Roman date (ie almost nothing pre-Hadrianic, except military related?). Are there any specialised structures – at least one temple is implied (though this could have lain outside the defended area to the east), was there ever a *mansio*? Do buildings concentrate solely in street frontage locations, leaving back-lot areas under-developed? If so, what are the implications for settlement population and more particularly for function and status?

### *Cemeteries*

Where are the early Roman (and indeed late Iron Age) cemeteries? Is the SE

(‘Meadside’) cemetery a major cemetery and if so why is it in this location (is its relationship to the road line properly understood?) Are there pre/early Roman factors which have a bearing on its location? Is it possible to define the area and extent of this cemetery?

Are Queenford Farm and Church Piece, Warborough the only late Roman cemeteries? Does the latter relate to Dorchester at all and whether it does or not, why is it where it is? Can we calculate cemetery populations for Queenford Farm and Church Piece more accurately than has been done already and perhaps use the results to estimate the population size of late Roman Dorchester?

We need to reconsider the chronology of Queenford Farm - check C14 dating, and also collate all the evidence for isotope and other research on these cemeteries

How closely can we identify the location of the three ‘Kirk and Leeds’ graves? Are we confident about the currently identified locations? Is there scope for further work both to refine the location identifications and to shed further light on these burials and their contexts

#### *Economic aspects*

Rural economy: to what extent did the Roman town serve as a market for local agricultural communities and how could this be examined?

Characterisation of the rural economy from within Dorchester will rely heavily on analysis of ‘imported’ plant and animal remains

Animal bone. There are (inadequately) published assemblages from excavations by Rowley and by Bradley (both reports by Grant). Neither assemblage is really large enough to allow close comparison of RB and Saxon material. Large well stratified assemblages are needed and their recovery could be prioritised – animal bone preservation seems to be generally good.

Plant remains. There is evidence from sites such as Mount Farm, but so far none from the town itself [the Recreation Ground excavation, interestingly, produced no useful material at all]. It is difficult to see how sites could be targeted specifically for their potential to produce such evidence, but where identified its recovery and analysis should be a priority.

What is the relationship between the town, and possible markets that it might contain, and the Roman pottery industry, particularly the developed major industry of the mid 3rd century and later? Was Dorchester fundamentally important to the organisation of the pottery industry, was the latter controlled by and operated through people/markets based in the town, or was Dorchester only one of a series of market outlets of only local importance? Can we use Dorchester evidence to shed light on the very latest stages of the Oxford pottery industry and improve understanding of their chronology?

Late Roman coinage. Dorchester produces an unusually high proportion of very late Roman coinage. This may be important in local economic terms but is arguably more significant in relation to the political/military status of Dorchester at the very end of the Roman period. What is the exact nature of the distribution of such material?



## Period questions 4: Early Anglo-Saxon Dorchester

*Helena Hamerow*

### *The archaeological background*

Despite the relatively limited range of features which can be firmly dated to the early Anglo-Saxon period at Dorchester, the site has had an enormous impact on our understanding of the origins of Anglo-Saxon England ever since the publication in the 1950s of three fifth-century burials uncovered in the nineteenth century at Dyke Hills and the Minchin Recreation Ground (Kirk and Leeds 1952/3). These burials continue to be regarded by many as the best archaeological evidence we have for the presence of Germanic mercenaries and their families in late Roman Britain, although debate persists over the precise dating of the key find: the metal fittings from a belt of a type worn by Roman officials, both civilian and military. What has scarcely been discussed, but is no less important, is the mixed assemblage of Romano-British and continental Germanic items with which the women were buried, and what this reveals about the way in which identities were being shaped in the course of the fifth century.

Frere's excavations in 1962 and 1963 in the allotments cast important further light on the nature of fifth- to ninth-century occupation of Dorchester (Frere 1962; 1984). He uncovered a range of features cut into the latest Roman levels, including a large pit interpreted as a *Grubenhaus*, and traces of at least one large post-in-trench building of seventh or eighth-century date, as well as several ditches representing either enclosures or possibly further buildings. The Anglo-Saxon pottery recovered ranges from the fifth to ninth centuries. In addition to the structural evidence uncovered in the area of the allotments, several apparently flint and clay walled buildings have been identified in the north-west corner of the Roman town which probably date to sometime in the Saxon period (Rowley and Brown 1981).

The excavations at the late Roman extra-mural cemetery at Queenford Farm have already been alluded to. Radiocarbon dates obtained in the 1980s indicate that burial continued to take place in the cemetery according to late Roman practices, throughout the fifth and well into the sixth century (Chambers 1987). Given that there are fifth and sixth-century burials of characteristically 'Anglo-Saxon' type a short distance away at the cemetery of Berinsfield, these dates – as well as the evidence from within Dorchester itself - indicate the co-existence of communities using both Roman-British, and 'Saxon' burial rites and dress styles. It is this that gives Dorchester such exceptional potential for elucidating the relationship between these groups.

The limited scale of excavation has left us with a highly fragmented view of Early Anglo-Saxon Dorchester. Our interpretation of post-Roman buildings types and how they relate stratigraphically to underlying Roman levels has developed significantly in recent decades, as has our dating of the pottery and other forms of material culture associated with them. Re-evaluation of earlier excavations may therefore yield some valuable insights, but only further excavation has the potential to clarify the context of the earliest post-Roman buildings and burials in Dorchester and to help us answer questions concerning the conditions of daily life and the nature of identity in these crucially

important 'transitional' centuries.

### ***Research Questions***

#### *Chronology*

As Booth has already noted, it is important – and should be possible – to refine the dating and our understanding of the very latest 'Roman' features, and to identify the re-use or recycling of late Roman material culture in post-Roman contexts.

The date and nature of the post-Roman structures and possible ditched enclosures need to be established as a priority.

When did the area of the Abbey become a focus for Anglo-Saxon activity/occupation? The recent publication of the excavations at Eynsham Abbey – where early and mid Saxon activity pre-dating the foundation of the abbey were identified - provides an important potential analogy (Keevill 2003; Hardy *et al.* 2003).

#### *The context of the Dyke Hills and Recreation Ground burials*

Were these burials the 'founder graves' in as yet unidentified Anglo-Saxon cemeteries, with 'satellite' burials around them or, as seems more likely, associated with late Roman cemeteries? The position of the Recreation Ground burial, a few hundred metres to the north of the town and adjacent to the Roman road, is certainly suggestive of this.

As Booth notes, the recalibration of the Queenford Farm radiocarbon dates will enable us better to understand the relationship between the communities buried there, and those buried around the same time at Berinsfield.

#### *Economy*

Booth has already outlined the very limited nature of the evidence recovered by earlier excavations. Were we to recover well-preserved plant and animal bone assemblages dating to the latest Roman and earliest post-Roman centuries, it would provide a rare opportunity to try and trace the collapse of the market-oriented economy of the late Roman town, and the emergence of a less specialized animal and plant husbandry regimes geared essentially towards subsistence which are typical of post-Roman settlements.

## Period questions 5: Dorchester in the early to central Middle Ages

*John Blair*

By this stage written sources start to become useful, and some of the central questions (Why Dorchester for the cathedral? How did it relate to Winchester within the structure of the Gewissian kingdom? Why did the town not grow more? Why was the episcopal seat moved and what consequences did that have for the town?) need to be addressed by means of a dialogue between historical and archaeological approaches. Questions where new archaeological data will be of major importance can be grouped under six broad headings:

(1) How did Birinus's church relate to the physical - and conceivably institutional - fabric of the town as it survived in the 620s? Was there still any trace of a British Christian presence (as there evidently was near Canterbury)? Did the siting of the church or churches reflect (as again at Canterbury) some perception, whether real or imagined, of an earlier Christian topography? Was the main church in fact built outside the east wall of the town, and if so, why?

(2) Is it possible to identify any precinct or other reserved sacred space around the cathedral/ minster during *c* 630-1070? Can a continuous ecclesiastical presence on the site be demonstrated throughout this period? Are the timber buildings found on the Beech House Hotel site, and under the north wall of the abbey nave, to be interpreted as ecclesiastical or secular? Is there any trace of the distinctive accommodation for eleventh-century reformed canons which is documented or excavated at other cathedrals (eg Exeter and Wells)?

(3) Were there any other activities in Dorchester during *c* 630-850 beyond the purely ecclesiastical, and if so, how did they relate to the cathedral/minster? Is there any evidence for mid-Saxon Dorchester as a site of production, consumption, or exchange?

(4) What form did lay settlement take in Dorchester during *c* 850-1100? Was it anything more than an ordinary village, and what explains the apparent absence of the kind of proto-urban development that one might expect to be associated with a church of this status (contrast Oxford and Abingdon)? Why, in the Alfredian period, was Dorchester passed over as a burghal site in favour of Oxford and Wallingford?

(5) What was the character of the settlement in the centuries after 1071, and how did it interact with the minster and then the Augustinian abbey?

(6) What, throughout this period, was the impact on Dorchester of communications and transport, especially by water along the Thames and Thame? Can evidence be found for waterfronts or for artificially-improved navigation?

The answers to several of these questions lie in the present village centre, where opportunities for large-scale excavation are much more limited than on peripheral sites. It will therefore be necessary to develop a coherent strategy for sampling by test-pitting, in the light of similar exercises in recent medieval settlement projects.



## APPENDIX 2: OXFORD ARCHAEOLOGY ENVIRONMENTAL SAMPLING GUIDELINES

### SAMPLING PRIORITIES

**Datability:** Samples should come from readily-datable deposits.

**Phasing:** Samples should be collected from each type of feature in each phase of activity on the site.

**Contamination:** Sampled deposits must come from discrete features:

- which are cut into as few other features as possible (none, ideally)
- which are cut by as few later features as possible (none, ideally)
- which are well-sealed (which have been protected as much as possible from more recent land use, such as ploughing or building work).

### Feature types

1. *Cremations:* Every fill in a cremation pit should be **entirely** retrieved for charred remains and for bones, and kept separate from any other fill in that pit. It is important that the whole cremation is sampled together and that larger bone fragments are not hand-excavated and sent separately to the Finds Department. Hand-excavated fragments should be placed in a finds bag and added to the top of the sample box. Spit samples **MUST** be given individual sample numbers.
2. *Buried soils:* The best indicator for past land use. It is essential to get a soil/sediment specialist to visit the site. In general, the layer and the strata below down to the drift geology should be sampled for soil micromorphology, pollen, snails, charred plant remains/artefacts and pedology.
3. *Wells and waterholes:* These contain the best preserved waterlogged remains on dry sites, and in some case the only waterlogged remains. Preservation by waterlogging is superior to other modes of preservation; pollen, insects and a range of plant remains survive in anaerobic deposits, and therefore these deposits must be sampled. Wells/waterholes usually remain in use for some time, and are often filled in intentionally with coarse rubbish after their abandonment, with the result that such deposits are highly interpretable and datable. Sample for charred plant remains only from dry fills.
4. *Ovens, hearths & furnaces:* Important indicators of fuel use and economic activities. Sample for charred plant remains; large areas should be sampled in grid pattern.
5. *Floors and internal occupation spreads:* Spatial organisation within houses and rooms is a major area of research. Several samples should be taken for charred plant remains and artefacts from across these types of layers, with the locations of each sample specified by site grid reference.

6. *Cesspits and middens*: If there is surviving mineralised/waterlogged materials, these provide the best information on diet. They should be sampled for plant macro-remains, bones/artefacts and (if waterlogged) insects and (if organic-rich or cessy) intestinal parasites.
7. *Industrial spreads*: These should be sampled for charred plant remains and metalworking debris across a gridded area.
8. *Pits*: These features are good catchments for economic indicators and should be sampled for charred plant remains and bones/artefacts. If a pit has more than one fill, all layers should be sampled. Lenses of charred material should be sampled separately as these may represent a discrete dump.
9. *Postholes*: These should be bulk sampled if a concentration of artefacts is present. Post-pipes and post-packing should be sampled separately and 100% of the feature should be taken if less than 40 litres. Priority should be given to postholes which are part of structures, rather than isolated features. A representative proportion of postholes should be sampled from large structures.
10. *Palaeochannels*: These provide important information on the local ecology and past environment. They should be sampled for waterlogged remains and pollen. Diatoms, foraminifera and ostracods may also be useful for reconstructing salinity and temperature conditions.
11. *Ditches and Gullies*: Large and deep ditches are good for characterising the local ecology and changes in the ecology over time, as they tend to be on the periphery of areas of high activity, and fill slowly. Incremental columns for molluscs should be taken and may also be useful in determining whether the ditch was primarily for drainage, or a boundary. Other samples for sediment/magnetic analysis may also be useful. Any concentrations/dumps of artefacts should be bulk sampled for charred plant remains and bones/artefacts. Shallow gullies rarely produce good materials but again, any concentrations of artefacts should be bulk sampled.
12. *Graves*: Not all bones are recovered reliably during hand-excavation, so bones/artefacts samples are often needed. These are critical in retrieving infant burials and in identifying death during birth or pregnancy. CPR samples should be taken if it seems that organic material may have been interred with the body. Pollen analysis may (rarely) be useful if in-situ stomach contents are present. These should be entirely sampled. Mineralised seeds may also be present.

### **Special cases**

- *Palaeolithic evidence*: any archaeological activity likely to date to this period must be sampled. At least 100 litres of soil (10 sample boxes) from each context, for the recovery of small animal bones/teeth, shells and flint is required but specialist advice must be sought. Always sample Mesolithic and Neolithic features as these are generally rare and data will add to our knowledge of these periods.

*Dating samples:* samples for dating such as optical stimulated luminescence (OSL), thermoluminescence (TL) or archaeomagnetic dating must be taken by the relevant specialist or strictly under their guidance. Background readings are usually necessary so it is important to contact the specialist as early as possible. Do **not** take special samples of wood or charcoal for radiocarbon dating - wood (charred or uncharred) is frequently not the best material for dating. It is preferable to take bulk samples; the most appropriate organic material may then be chosen for dating, **after it has been properly recorded by the specialist.**

	Deposit type	Charred rems	Bones/ Artefacts, marine shell	Waterlgd/ mineral. plant rems	Waterlgd Insects	Pollen	Molluscs	mi pl
1	Cremation fills	☐	☐					
2	Buried soils	☐	?	?	?	☐	☐	
3	Wells and waterholes	?	?	☐ If waterlogg'd	☐ If waterlogg'd	☐	?	
4	Ovens, hearths and furnaces	☐						
5	Occupation spreads/floors	☐	?	☐ If waterlogg'd				
6	Cess and middens	☐	?	☐ If waterlogg'd	☐ If waterlogg'd			
7	Industrial spreads	☐						
8	Pits	☐	☐	☐ If waterlogg'd	☐ If waterlogg'd	?	☐	
9	Postholes	☐						
10	Palaeochannels			☐ If waterlogg'd	☐ If waterlogg'd	☐		
11	Ditches & gullies	?	?	?	?	?	☐	
12	Graves	?	☐			? ( very rarely)		

? = dependent upon the sediments and inclusions encountered in excavation. May be taken if relevant to specific questions.**MAIN TYPES OF SAMPLE**

### **BULK SAMPLES**

**(CPR charred plant remains):** These are whole earth samples ideally of 40 litres (4 white or blue tubs); less only if less deposit is available. They are sieved using a flotation tank primarily for the recovery of **charred plant remains and small bones**. They are taken from significant datable deposits. If a deposit contains clearly preserved uncharred plant material (ie waterlogged) then take a WPR instead of a CPR.

**(WPR waterlogged plant remains):** These are taken from **waterlogged** deposits where **plant remains and insects** may be preserved anaerobically. These are 20 litres (2 tubs) for the recovery of insects or insects plus waterlogged plants or 1-2 litres (bag) for the recovery of waterlogged plant remains only.

**Recognising waterlogged preservation :** Waterlogged deposits are sometimes difficult to

the recovery of waterlogged remains or snails.

**MONOLITHS** - These are taken through intact soil sequences for specialist work - either pollen analysis or soil micromorphology. Their position **MUST** be recorded on sections.

Sample type	Container	Sample size	Material sampled for
	a	animals (leather or skin, hair, insects).	<b>(BONE/ARTEFACTS)</b>
		100 litre soil samples are taken from	deposits rich in bones for the recovery of smaller items.
		<b>SERIES SAMPLES</b> - These 2 litre samples are taken incrementally down a column for the recovery of	waterlogged remains or snails.
		<b>MONOLITHS</b> - These are taken through intact soil sequences for specialist work - either pollen analysis or soil micromorphology. Their position <b>MUST</b> be recorded on sections.	

**Material sampled for**

animals (leather or skin, hair, insects). **(BONE/ARTEFACTS)**: 100 litre soil samples are taken from deposits rich in bones for the recovery of smaller items. **SERIES SAMPLES** - These 2 litre samples are taken incrementally down a column for the recovery of waterlogged remains or snails. **MONOLITHS** - These are taken through intact soil sequences for specialist work - either pollen analysis or soil micromorphology. Their position **MUST** be recorded on sections.

**Material sampled for**

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wn a column for the recovery of waterlogged remains or snails. **MONOLITHS** - These are taken through intact soil sequences for specialist work - either pollen analysis or soil micromorphology. Their position **MUST** be recorded on

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sections. **Sample type Container Sample size Material sampled for**

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are taken from deposits rich in bones for the recovery of smaller items

. **SERIES SAMPLES** - These 2 litre samples are taken incrementally down a column for the

recovery of waterlogged remains or snails. **MONOLITHS** - These are taken through intact

soil sequences for specialist work - either pollen analysis or soil micromorphology.

Their position **MUST** be recorded on sections.

**Sample type Container Sample size**

that box, and no other. **If there is a secondary purpose to taking the sample, then note this in the Additional notes box.**

E.g. if you are sampling a furnace rich in slag, you should take a 4 box sample with a primary purpose to recover the fuel = charred remains; secondary purpose = metalworking to identify if hammerscale present. The processing staff then know to take a 1 kg sub-sample from the bulk sample.

*Feature type:* please make sure that this is filled in, so that the full potential of the sample may be fulfilled.

*Additional Notes:* as mentioned above, this should be used to record if there is a secondary purpose to taking the sample or if you think any sub-samples should be taken. It should also be used for any extra recording required, such as the relative depth for monolith or incremental samples and if there are any specific questions that you would like answered. For example, you might sample a ditch for snails to find out how quickly the deposit accumulated or whether there was water in the bottom of the feature.

OXFORD ARCHAEOLOGICAL UNIT										ENVIRONMENTAL						
Site name				Project type (excavation/evaluation)						Site/Project Manager						
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- this should only be circled if it is the primary purpose for taking the sample.
- A second **non-sticky** melanine Finds label should be placed on the inside of the box. This is quite important as the paper peel-back degrades over time, infusing the sample with bits of paper and causing plant remains to stick to them.
- Make sure **all labels are written in waterproof and lightfast Berol**; labels written in biro fade away.
- Ensure that the box lids are appropriate to the type of box (there are 3 different types of sample boxes and lids) and that they are properly secured; otherwise the lids have a tendency to come off in transit and the sample is lost.

*Cremation deposits:*

- 100% of a cremation deposit should be taken as a sample to ensure the recovery of all the bone, and the recovery of fuel.
- Follow the procedure outlined above for charred plant remains
- Do not pick out pieces of bone and send as a find - any large pieces of bone should be placed in a finds bag and put on the top of the soil inside the sample box: **all of the cremation should be kept together.**
- If sampled in spits, **give each spit a separate sample number.**

*Waterlogged remains:*

The procedure outlined for charred plant remains samples should be followed, with the following additions:

- Take samples of 20 litres or 2 boxes for the recovery of insects and plant macros.
- Try to lift whole blocks of earth for the sample, as this prevents the break-up of compressed leaf litter which can be studied later.
- Do not add water to the sample.
- Circle for waterlogged remains **only** on the sample labels.
- Store the sample somewhere out of direct sunlight.

*Bones/Artefacts:* the purpose of recovering animal bone from environmental soil samples is to avoid recovery bias, since small and rare bones are often missed by excavators during excavation. Large deposits of animal bones should be sampled, but particularly deposits that appear to contain small bones such as small mammal, bird or fish bones. Smaller bones are generally indicative of good preservation and may reveal more information regarding the economy and ecology of the site.

- Collect as for CPR samples, but label for the recovery of bones/artefacts **only**.

None of the animal bones should be removed from the soil samples. Large animal bones that will not fit in the containers can be removed and sent to the finds section. However, it is vital that these bones are labelled with the relevant soil sample number.

*Series samples*

These are samples which are taken in a sequence (usually 5-10cm spits - consult specialist or Environmental Co-ordinator), providing an incremental column of small samples. Deep features such as wells, pits or ditches may need series samples for waterlogged plant remains or snails. **Each series sample must get an individual sample**

## **number.**

### *Waterlogged plant remains:*

- Begin the sequence from the top of the first waterlogged deposit in the feature, not from the top of the feature if this is not waterlogged. If you are unsure whether a deposit is waterlogged, then assume that it is and begin the sequence from there.
- Take 2 litres (a single full Finds Bag - largest size) of soil every 10cm (this is standard but varies according to how quickly the deposits accumulated - the specialist must be consulted).
- Measure the relative depth of the samples from the ground surface (e.g. 0.3-0.4m).
- Try to lift whole blocks of earth for the sample, as this prevents the break-up of compressed leaf litter which can be studied later.
- Do not mix contexts; avoid taking samples across deposit interfaces.
- Give each incremental sample a **separate sample number**.
- Record on the outside of the bag and on a **non-sticky** Finds label inside the bag:
  - Site code
  - Sample number
  - Feature number (this ensures that the series samples are kept together)
  - Relative depth
  - Number of samples in sequence
- RECORD THE LOCATION OF THE SERIES SAMPLES ON THE RELEVANT SECTION DRAWING.
- Place all of the samples in the series into a sample box and record the relevant details on an outside label.
- Store the box somewhere out of direct sunlight.

### *Snails:*

Follow the procedure outlined above but make sure that the sequence begins at the top of the feature and record that sample has been collected for snails.

### *Monolith samples*

The guidelines below are primarily for pollen monoliths but are essentially the same for taking monoliths for soil micromorphology; the exact procedure for kubierna samples should be defined by the specialist before samples are taken.

- Clean the section to be sampled (which should have already been drawn and photographed).
- Take plastic drainpipe and cut to size. Drainpipe should be cut into standard sizes of 30cm or 50cm if possible and one side of four should be sawn off – this should be done as near to the top as possible **not half-way through**, so that there is still a good depth.

Cut across  
here

- Samples should cover all of the sequence and cross all boundaries. If a deep section is being sampled, it is not necessary to cover the sequence all the way to the top. But, if the deposits are waterlogged, make sure that the interface with non-waterlogged deposits is included.
- Where more than one monolith is used to sample a single sequence, ensure that they **overlap** by at least 5cm and that the overlap is marked on each monolith with a black marker.
- Position the monolith against the section ensuring that the primary deposit to the bottom of the feature is included, avoiding stoney areas.
- Use a rubber or wooden mallet to embed the monolith into the section, open face inwards. If the deposit is very hard or clayey it may be easier to mark out the area and dig out around the outline of the sample first.
- When the monoliths are in place, photograph and **draw their location** on the section drawing. Fill out the sample register and recording sheets, noting all of the context numbers of the sequence which was sampled.
- Mark the top of each monolith and the overlaps on the drainpipe. Measure the relative depth of the monoliths from the ground surface (e.g. 0-0.3m and 0.25-0.6m) and **record** on the label and the sample sheet. Stick the label to the back surface of the monolith.

## Ground surface

- Cut away the sediments from the sides and behind the monolith to free it from the section with sediments *in situ*. Ensure that all the sediment is cut away from behind, leaving a clean surface of sediment on the monolith.
- Fill any gaps in the sediment sequence (particularly at the top and bottom) with black plastic and wrap in a black plastic bin bag, taping it tightly with masking tape. Label the outside.
- Monoliths should be labelled with:
  - SITE NAME (specialists may be working on material from different Units with similar site codes)
  - Site code
  - Sample number
  - Feature number
  - Relative depth
  - Date collected (pollen degrades quickly - the specialist needs to record how long the sample has been out of the ground)
  - Number of monoliths in sequence
- The feature number (cut number) is used to ensure that a single sequence of more than one monolith is kept together and must be recorded on the monoliths. Try and issue sample numbers sequentially so that <2> (0-0.3m) is the uppermost in the sequence followed by <3> (0.25-0.6m) etc.
- If it is impossible to take a monolith sample (and only if this is the case), pollen samples can be taken as an incremental column (follow procedure for waterlogged plant remains and snails above) but it is only worthwhile if the samples are taken **every 1cm**. You only need 1-2g of soil.
- Monoliths should always be stored horizontally, so that the sediments are less liable

to move about.

## ***Other***

*Diatoms, Ostracods, Intestinal Parasites etc.* These can usually be taken as sub-samples by environmental staff but if they are taken on-site, the procedure should be confirmed by the specialist. If they are to be taken as sub-samples by environmental staff you must note this in the additional notes section of the sample register.

*Metalworking:* samples taken for metalworking are different from samples taken for the recovery of slag. Slag samples come under the category of Bones/Artefacts, where the material is to be recovered in quantity. Usually slag from rich deposits is adequately retrieved by hand-excavation, but bulk samples for charred plant remains are worthwhile to recover the fuel from metalworking. Samples for metalworking are taken to retrieve hammerscale only. Hammerscale is small metallic fragments resulting from iron-working and, because it is diagnostic of the smithing of iron, can be useful in identifying specific areas of activity on-site. Only 1 kg of soil is needed.

*Pedology/Chemical:* these are samples taken for bulk soil/sediment analyses (as opposed to micro soil analyses) such as particle size, magnetic susceptibility, phosphate/nitrate analysis and loss on ignition. 1 kg of soil is plenty to ensure that all of the techniques may be used to answer specific questions relating to deposit characterisation and formation processes.

*Dating:* these are very specialised samples which must be taken under the supervision of the relevant specialist. It is not necessary to take separate charcoal samples on-site for radiocarbon dating as appropriate pieces may be selected from the flotation samples. If a deposit has charcoal large enough to be picked out for C14, it **MUST** be sampled properly for charred plant remains.

*Wood:* there are separate registers for samples for species identification and the recording of wood on-site. Please use these and **do not use general sample registers.**



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